Office of Energy Projects

January 2019

FERC/FEIS-0285F

FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR

Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project

Port Arthur LNG, LLC
PALNG Common Facilities Company, LLC
Port Arthur Pipeline, LLC

Docket Nos.: CP17-20-000
CP17-21-000
CP17-21-001
CP18-7-000

Volume II

Source: Sempra LNG & Midstream, Port Arthur Liquefaction Project Website, 2018

Federal Energy Regulatory Commission
Office of Energy Projects
Washington, DC 20426

Cooperating Agencies:

US Army Corps of Engineers®

U.S. Coast Guard

U.S. Department of Energy

U.S. Department of Transportation PHMSA

U.S. Environmental Protection Agency

APPENDIX A

FINAL ENVIRONMENTAL IMPACT STATEMENT
DISTRIBUTION LIST

Appendix A

Distribution List

Federal Agencies

Advisory Council on Historic Preservation, DC

Office of Federal Programs
Charlene D Vaughn, Assistant Director for Federal Program Development

Council on Environmental Quality, DC

Edward Boling, Associate Director for NEPA Oversight

Department of Agriculture, DC

Farm Service Administration - Conservation and Environmental Program Division
Nell Fuller, National Environmental Compliance Manager
Forest Service - Ecosystem Management Coordination
Joe Carbone, Assistant Director, NEPA
Natural Resources Conservation Service
Andree DuVarney, National Environmental Coordinator

Department of Agriculture, LA

Natural Resources Conservation Service, Louisiana State Office
Kevin D. Norton, State Conservationist

Department of Agriculture, TX

Natural Resources Conservation Service
Salvador Salinas, State Conservationist

Department of Commerce, FL

National Oceanic and Atmospheric Administration, National Marine Fisheries Service
Karla Reece, Section 7 Lead, Southeast Regional Office
Rusty Swafford, Branch Chief, Southeast Regional Office

Department of Commerce, LA

National Oceanic and Atmospheric Administration, National Marine Fisheries Service
Twyla Cheatwood, Fishery Biologist, Habitat Conservation Division, c/o LSU

Department of Commerce, MD

National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NOAA NEPA Coordinator

Department of Commerce, TX

National Oceanic and Atmospheric Administration, National Marine Fisheries Service
Heather D. Young

Department of Defense, DC

Steve Sample, Siting Clearinghouse
Office of the Assistant Secretary of the Army for Civil Works
Assistant for Environment, Tribal & Regulatory Affairs
Office of the Assistant Secretary of the Navy (Energy, Installations and Environment)
Office of the Deputy Assistant Secretary of the Air Force (Installations)
Liaison, DoD Siting Clearinghouse, SAF/IEI

Appendix A

Distribution List

Office of the Deputy Assistant Secretary of the Army (Energy & Sustainability)
Liaison, DoD Siting Clearinghouse
Office of the Deputy Under Secretary of Defense (Installations & Environment)
Chief, Mission Evaluation Branch, DOD Siting Clearinghouse
U.S. Army Corps of Engineers Planning and Policy Division, CECW-P

Department of Defense, LA

U.S. Army Corps of Engineers, New Orleans District
Brenda Archer, Project Manager
Darrell Barbara, Chief
James Little, Project Manager
Martin Mayer
Trent Stockton, Archaeologist and Tribal Liaison

Department of Defense, TX

U.S. Army Corps of Engineers, Galveston District
Janet Botello
Felicity Dodson, Regulatory Project Manager
Jayson Hudson

Department of Energy, DC

Brian Lavoie
James Ward, Environmental Protection Specialist
Kyle W. Moorman, Natural Gas Analyst
Robert Smith
Division of Natural Gas Regulatory Activities
John Anderson, Director
Office of Environment
Ed DeLuc, Deputy Assistant General Counsel
Office of Environmental Management
Mark Whitney, Principal Deputy Assistant Secretary
Office of NEPA Policy and Compliance
Brian Costner, Acting Director, OGC

Department of Health and Human Services, DC

Everett Bole, Chief Environmental Officer

Department of Health and Human Services, GA

Centers for Disease Control and Prevention, National Center for Environmental Health
Sharunda Buchanan, Director, Division of Emergency and Environmental Health Services

Department of Homeland Security, DC

U.S. Coast Guard
Daniel McQuate
John Nolan
U.S. Coast Guard, Deepwater Ports Standards Division
Curtis E. Borland, Attorney/Advisor, Commandant (CG-OES-4) Chief (Acting)
U.S. Customs and Border Protection
Christopher Oh, Branch Chief

Appendix A

Distribution List

Department of Homeland Security, FL

U.S. Coast Guard, 7th District
Andrew Bobick

Department of Homeland Security, LA

U.S. Coast Guard
Nathaniel Robinson

Department of Homeland Security, TX

U.S. Coast Guard
Daniel Cost
Byron Inagaki
John H. Lovejoy
MSTC Jamie L. Merriman, Facilties Division Chief
LT Ryan Mitchell, MSU Port Arthur Facilities Division Officer
Keith Pierre
Ken Smith
MSTC Justin Swain, MSU Port Arthur Facilities Division Chief
U.S. Coast Guard, Marine Safety Center
Jacqueline Twomey

Department of Housing and Urban Development, DC

Office of Environment and Energy
Danielle Schopp, Community Planner

Department of Justice, DC

Environment and Natural Resources Division
NEPA Coordinator

Department of State, DC

Bureau of Oceans & International Environmental & Scientific Affairs
Alexander Yuan, Foreign Affairs Officer

Department of the Interior, CO

National Park Service
Patrick Walsh, Chief, Environmental Planning and Compliance Branch

Department of the Interior, DC

Bureau of Indian Affairs
Terry L McClung, NEPA Coordinator
Bureau of Land Management, FERC Contact

Department of the Interior, LA

U.S. Fish and Wildlife Service, Louisiana Ecological Services
Patti Holland
Joshua Marceaux, Conservation Planning Assistance Biologist
David Oster, Conservation Planning Assistance Biologist
Joseph Ranson, Field Supervisor
Brad Rieck
Monica Sikes

Karen Soileau
Angela Trahan
Jeff Weller

Department of the Interior, TN

Bureau of Indian Affairs, Eastern Region
Harold Peterson, Natural Resource Officer
Randall Trickey

Department of the Interior, TX

U.S. Fish and Wildlife Service, Houston Ecological Services Field Office
Moni Belton

Department of the Interior, VA

Bureau of Indian Affairs
BJ Howerton, EMS / EMAP Program Manager
Bureau of Ocean Energy Management
Dr. Jill Lewandowski, Chief, Division of Environmental Assessment
Bureau of Safety and Environmental Enforcement
David Fish, Chief, Environmental Compliance Division
U.S. Geological Survey
Mark Leeper, Chief, Environmental Management Branch

Department of Transportation, DC

Jon Manning, Supervisor
Office of Assistant Secretary for Transportation Policy
Camille Mittelholtz, Environmental Policy Team Coordinator
Helen Serassio, Senior Environmental Attorney Advisor
Pipeline and Hazardous Materials Safety Administration
William Schoonover, Associate Administrator for Hazardous Materials Safety
Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety
Kenneth Y Lee, Director, Engineering and Research Division
Karen Lynch, National CATS Coordinator
Joseph Sieve, General Engineer
Ahuva Battams, Attorney Advisor
Melanie Stevens, Attorney Advisor
Surface Transportation Board
Victoria Rutson, Chief, Section of Environmental Analysis

Department of Transportation, TX

Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety, Southwest Region
Alfred Giordano, Engineer
Buddy Secor, Supervisor
Meredith Secor, Supervisor
Robert Smith
Rodrick M. Seeley, Director
Sentho White, Engineer
Thach Nguyen

Appendix A

Distribution List

Environmental Protection Agency, DC

Jerome Blackman, Natural Gas STAR
Office of Enforcement and Compliance Assurance
Lawrence Starfield, Assistant Administrator
Office of Federal Activities
Susan E Bromm, Director

Environmental Protection Agency, TX

Region 6
Agatha Benjamin
Isaac Chen
Robert Houston, Chief, Office of Planning and Coordination
Paul Kaspar, Chief, Permits Oversight Section
Rob Lawrence
Kimeka Price, NEPA Project Manager
Nick Stone, WIPP Project Officer
John Walser
Water Quality Protection Division
Bill Honker, Director

Senate, DC

Energy and Natural Resources Committee
Lisa Murkowski, Chair

Native American Tribes

Edwina Butler-Wolfe, Governor, Absentee Shawnee Tribe of Oklahoma, OK
Erin Thompson, Tribal Historic Preservation Officer, Absentee Shawnee Tribe of Oklahoma, OK
Bryant Celestine, Historic Preservation Clerk, Alabama Coushatta Tribe of Texas, TX
JoAnn Battise, Chairperson, Alabama-Coushatta Tribe of Texas, OK
Tarpie Yargee, Chief, Alabama-Quassarte Tribal Town, OK
Bobby Komardley, Chairman, Apache Tribe of Oklahoma, OK
Tamara Francis Fourkiller, Chairperson, Caddo Nation, OK
Tamara Francis-Fourkiller, Tribal Historic Preservation Officer, Caddo Nation, OK
Bill John Baker, Principal Chief, Cherokee Nation of Oklahoma, OK
Melissa Darden, Chairman, Chitimacha Tribe of Louisiana, LA
Kimberly Walden, Tribal Historic Preservation Officer, Chitimacha Tribe of Louisiana, LA
Gary Batton, Chief, Choctaw Nation of Oklahoma, OK
Dr. Ian Thompson, Tribal Historic Preservation Officer, Choctaw Nation of Oklahoma, OK
Martina Callahan, Tribal Historic Preservation Officer, Comanche Nation of Oklahoma, OK
Willie Nelson, Chairman, Comanche Nation of Oklahoma, OK
Dr. Linda Langley, Tribal Historic Preservation Officer, Coushatta Tribe of Louisiana, LA
David Sickey, Chairman, Coushatta Tribe of Louisiana, LA
Alina Shively, Tribal Historic Preservation Officer, Jena Band of Choctaw Indians, LA
B. Cheryl Smith, Tribal Chief, Jena Band of Choctaw Indians, LA
Dr. Jeffrey Blythe, Tribal Historic Preservation Officer, Jicarilla Apache Nation, NM
Wainwright Velarde, President, Jicarilla Apache Nation, NM
Mekko-Tiger Hobia, Town King, Kialegee Tribal Town, OK
Estavio Elizondo, Chairman, Kickapoo Traditional Tribe of Texas, TX
David Pacheco, Chairperson, Kickapoo Tribe of Oklahoma, OK

Appendix A

Distribution List

Matthew Komalty, Chairperson, Kiowa Tribe of Oklahoma, OK
Danny H. Breuninger, Sr., President, Mescalero Apache Tribe, NM
Holly Houghten, Tribal Historic Preservation Officer, Mescalero Apache Tribe, NM
Phyliss J. Anderson, Chief, Mississippi Band of Choctaw Indians, MS
Kenneth Carleton, Tribal Archaeologist & Tribal Historic Preservation Officer, Mississippi Band of Choctaw Indians, MS
James Floyd, Principal Chief, Muscogee (Creek) Nation, OK
Corain Lowe-Zepeda, Tribal Historic Preservation Officer, Muscogee (Creek) Nation, OK
Geoffry M. Standing Bear, Principal Chief, Osage Nation, OK
Dr. Andrea A. Hunter, Tribal Historic Preservation Officer, Osage Nation, OK
Stephanie Bryan, Chairwoman, Poarch Band of Creek Indians, AL
Carolyn White, Acting Tribal Historic Preservation Officer, Poarch Band of Creek Indians, AL
Everett Bandy, Tribal Historic Preservation Officer, Quapaw Tribe of Oklahoma, OK
John L. Berrey, Chairman, Quapaw Tribe of Oklahoma, OK
Natalie Harjo, Historic Preservation Officer, Seminole Nation of Oklahoma, OK
Leonard M. Harjo, Principal Chief, Seminole Nation of Oklahoma, OK
Dr. Paul Backhouse, Tribal Historic Preservation Officer, Seminole Tribe of Florida, FL
Marcellus W. Osceola, Jr., Chairman, Seminole Tribe of Florida, FL
Kerry Holton, President, The Delaware Nation, OK
Ryan Morrow, Town King, Thlopthlocco Tribal Town, OK
Emman Spain, Tribal Historic Preservation Officer, Thlopthlocco Tribal Town, OK
Russell Martin, President, Tonkawa Tribe of Oklahoma, OK
Earl J. Barbry, Jr., Tribal Historic Preservation Officer, Tunica-Biloxi Tribe of Louisiana, LA
Marshall Sampson, Sr. & Beverly Chapman-Rachel, Co-Administrators, Tunica-Biloxi Tribe of Louisiana, LA
Joe Bunch, Chief, United Keetoowah Band of Cherokee Indians, OK
Terri Parton, President, Wichita and Affiliated Tribes, OK
Carlos Hisa, Governor, Ysleta Del Sur Pueblo of Texas, TX

Federal Representatives and Senators

Louisiana

Senate
The Honorable Bill Cassidy
The Honorable John Neely Kennedy

House of Representatives
The Honorable Clay Higgins
The Honorable Mike Johnson

Texas

Senate
The Honorable John Cornyn
The Honorable Ted Cruz

House of Representatives
The Honorable Brian Babin
The Honorable Randy Weber

Appendix A

Distribution List

State Representatives and Senators

Louisiana

Senate
- Senator Ronnie Johns
- Senator Eric Lafleur
- Senator Dan "Blade" Morrish
- Senator John Smith

House of Representatives
- Representative Mark Abraham
- Representative Mike Danahay
- Representative Phillip R. DeVillier
- Representative Stephen Dwight
- Representative Bob Hensgens
- Representative H. Bernard LeBas

Texas

Senate
- Senator Brandon Creighton
- Senator Robert Nichols

House of Representatives
- Representative Joe Deshotel
- Representative Dade Phelan

State Agencies

Louisiana

John Bel Edwards, Governor

Department of Agriculture and Forestry, Forestry Management
- David Campbell, Forestry Program Director

Department of Agriculture and Forestry, Soil and Water Conservation
- Brad Spicer, Assistant Commissioner

Department of Environmental Quality
- Tom Killeen, Administrator, Inspection Division
- Kathleen Landry
- Scott Wilkinson

Department of Environmental Quality, Office of Environmental Services
- Elliott Vega, Assistant Secretary

Department of Environmental Quality, Southwest Regional Office
- Billy Eakin, Regional Manager

Department of Environmental Quality, Water Permits Division
- Dave Butler, Permits Coordinator
- Scott Guilliams, Administrator
- Elizabeth Hill, Permits Coordinator

Appendix A

Distribution List

Department of Natural Resources
Stephen Chustz, Secretary

Department of Natural Resources, Office of Coastal Management
Thomas Harris, Secretary
Keith Lovell
Karl Morgan
O.C. Smith
Thomas Van Biersel, Hydrogeologist

Department of Transportation and Development
Deidra Druilhet, Public Information Officer
Patrick Landry, District Administrator

Department of Wildlife and Fisheries
David Butler
Nicole Lorenz, Data Manager
Carey Lynn Perry, Program Manager

Department of Wildlife and Fisheries, Lake Charles Field Office

Department of Wildlife and Fisheries, Opelousas Charles Field Office

Office of Cultural Development
Phil Boggan, State Historic Preservation Officer

Office of Cultural Development, Division of Archaeology
Charles "Chip" McGimsey, State Archaeologist
Rachel Watson, Section 106 Review

Office of Cultural Development, Division of Historic Preservation
Mike Varnado, Section 106/Standing Structures

Office of State Lands
Cheston Hill, Section Manager
Jonathon Robillard, Public Lands Administrator

Texas

Greg Abbott, Governer

Commission on Environment Quality
Kate Brown
Gregg Easley, Manager
Rebecca Villalba

Commission on Environment Quality, Beaumont Regional Office
Kathryn Sauceda, Regional Director

Department of Transportation
Jesse Cooper
Tucker Ferguson, P.E., District Engineer
Adam Jack

Lower Neches Valley Authority
Wayne Blanchard

Parks and Wildlife Department
Winston Denton

Carey Gelpi, Sabine Lakes Ecosystem Leader
Michael Rezsutek
Jim Sutherlin

Parks and Wildlife Department, Coastal Fisheries Division
Michael N. Morgan, Coastal Ecologist
Mike Morgan

Parks and Wildlife Department, J.D. Murphree Wildlife Management Area

Railroad Commission of Texas
Grant Chambless
Kari French, Oversight & Safety Director
Gaye McElwain, Public Outreach information Officer
James Osterhaus

Sabine Neches Navigation District
Randall Reese, Executive Director

Sabine Pass Port Authority
Sherry Droddy, Manager

Texas General Land Office
Mollie Powell, Regional Field Office Manager
Glenn Rosenbaum
Tony Williams

Texas Historical Commission
Bill Martin, Archeologist and Reviewer
Kerry Nichols, Terrestrial Archaeologist

Texas Workforce Commission
Dale A. Robertson

County/Parish Agencies

Louisiana

Allen Parish
Doug Sonnier, Police Juror, President
Creig Vizena, President

Beauregard Parish
Bobby Hennigan, Parish Administrator
John Stebbins, Police Juror
N.R. "Rusty" Williamson, Police Juror, President

Calcasieu Parish
Francis Andrepont, Police Juror
Judd Bares, Police Juror
Bryan C. Beam, Parish Administrator
Kevin Guidry,Police Juror, President
Hal McMillin, Police Juror
Sandra Treme, Police Juror

Cameron Parish
Ryan Bourriaque, Parish Administrator

Curtis Fountain, Police Juror, President
Anthony "Dino" Hicks, Police Juror

Evangeline Parish
Ryan M. Ardoin, Police Juror, President
Donald Bergeron, Secretary-Treasurer
Sidney A. Fontenot, Police Juror
Ryan M. Adroin, Police Juror
Eric Soileau, Police Juror
Bryan Vidrine, Police Juror

St. Landry Parish
St. Landry Parish Government
Vallie Theriot, Permit Officer

Texas

Jefferson County
Drainage District Six
Waterway and Navigation District
Everette "Bo" Allfred, County Commissioner
Eddie Arnold, County Commissioner
Jeff Branick, County Judge
Don Rao, Engineering Department
Michael Shane Sinegal, County Commissioner
Brent Weaver, County Commissioner

Orange County
Brint Carlton, Judge
Bobby Fillyaw, Director, Economic Development Corporation

City Agencies

Eunice Chamber of Commerce, Eunice, LA
Scott Fontenot, Mayor, Eunice, LA
Michael Holmes, Representative, Kinder, LA
George Swift, President/CEO, SWLA Economic Development Alliance/SWLA Chamber of Commerce, Lake Charles, LA
Town of Mamou, Mamou, LA
Regina Lindsey, President, Greater Beaumont Chamber of Commerce, Beaumont, TX
Jim Rich, Honorary Member, Greater Beaumont Chamber of Commerce, Beaumont, TX
Becky Ames, Mayor, Beaumont, TX
Wayland LaFargue, Mayor, Kinder, TX
R. A. “Dick” Nugent, Mayor, Nederland, TX
Ida Schossow, President, Greater Orange Area Chamber of Commerce, Orange, TX
Floyd Gaspard, Executive Port Director, Port Arthur, TX
Darlene Thomas-Pierre, Director of Code Compliance, Port Arthur, TX
Brian McDougal, City Manager, Port Arthur, TX
Bill McCoy, President, Greater Port Arthur Chamber of Commerce, Port Arthur, TX
Derrick Ford Freeman, Mayor, Port Arthur, TX
Pamela Langfor, Administrative Aide, Port Arthur, TX
Paul Brown, Port Arthur, TX
Philip Vilardi, Port Arthur, TX

Appendix A

Distribution List

Ron Burton, Director of Development Services/ACM, Port Arthur, TX
Willie "Bae" Lewis, Jr., District 5 Council Member, Port Arthur, TX
Orlando Ciramella, Senior Director of Trade Development, Port Arthur, TX

Libraries

Evangeline Library, Basile, LA
Cameron Parish Library, Cameron, LA
Beauregard Parish Library, DeRidder, LA
Eunice Public Library, Eunice, LA
Allen Parish Library - Kinder, Kinder, LA
Calcasieu Parish Library, Lake Charles, LA
Allen Parish Library, Oberlin, LA
Opelousas Public Library, Opelousas, LA
Sulphur Regional Library, Sulphur, LA
Beaumont Public Library, Beaumont, TX
Orange Public Library, Orange, TX
Port Arthur Public Library, Port Arthur, TX

Newspapers

The Advocate, Baton Rouge, LA
CameronPilot, DeQuincy, LA
Beauregard Daily News, DeRidder, LA
The Kinder Courier News, Kinder, LA
American Press, Lake Charles, LA
The Texas Observer, Austin, TX
Beaumont Enterprise, Beaumont, TX
Port Arthur News, Port Arthur, TX

Landowners, Individuals, and Organizations

Sigrid Rothschild c/o Rodolfo Rothschild-Anchorena, Buenos Aires, Argentina
Eric R Leboeuf, Anchorage, AK
Sidney Stephenson, Hartselle, AL
Darrell Turner, Heflin, AL
John Campbell Winter Jr, Huntsville, AL
Michael Taylor, Senior Environmental Compliance Advisor, Sempra U.S. Gas & Power, McIntosh, AL
Rayonier Gulf Timberlands, LLC, Mobile, AL
Rayonier Louisiana Timberlands, LLC, Mobile, AL
Rayonier Trs Louisiana Operations, Inc., Mobile, AL
Kay Lynn Eaglin Cabbagestalk, Apo, AP
Elizabeth Smith, Pine Bluff, AR
Isabelle Botley Hawkins, Pine Bluff, AR
Herbert M. Scott and Furlow Living Trust, Ward, AR
Hilda Botley May, White Hall, AR
F.R. Coward (deceased), Bakersfield, CA
Spindletop Renaissance, L.P., Bakersfield, CA
Keith A. Latham, P.E., Kaltech, LLC, El Cajon, CA
Henry Thomas Hey, Los Angeles, CA
Young Family 1996 Trust Dtd June 20,1996, Nevada City, CA
Amizetta McFaddin Clark, Saint Helena, CA
Cameron Interstate Pipeline, LLC, San Diego, CA
Port Arthur LNG Holdings, LLC, San Diego, CA
Jared Arthur Warwick, San Francisco, CA
John Willard Botley, Jr, Sun Valley, CA
Felix J Morrow, Thousand Oaks, CA
Margaret G. Stephens, Walnut, CA
Zachariah White, Boulder, CO
Daniel Joseph Renthrope, Colorado Springs, CO
Edith F. Hultquist, Colorado Springs, CO
Maizie C. and Tasha Tudor Houghton, Lakeville, CT
Paul Austin Jones, Jr, Delray Beach, FL
Else Guillory, Jacksonville, FL
Amy Frederick, Navarre, FL
Anne Ellender Edwards, Ocala, FL
Christina Lowery Allen, Ocala, FL
Angela Kay Eligio, Pensacola, FL
Dann M Thomasson Et al, Ponte Vedra Beach, FL

Appendix A

Distribution List

Marianne Bell Tweel, Saint Cloud, FL
Jerri C. Kirby Hall, Zephyrhills, FL
Charles Martin, ALPharettta, GA
Golden Triangle Storage – J.N. Miller Property, Atlanta, GA
Dave Williams, Conyers, GA
John O. & Kay S. Sneve, Jasper, GA
Harriotte Parker Bohn, Marietta, GA
Ronald B Jones, Waterloo, IA
Steven L. & Vicki J. Reynolds, Martinsville, IL
Derrick H. Bang, Calhoun, KY
Robert L., II Bang, Calhoun, KY
Sandra H. Bang, Calhoun, KY
Eric J Manuel, Fancy Farm, KY
Gary Lynn Santana, Lexington, KY
Tristin Botley, Lexington, KY
Alice Norrine Winter Et al, Versailles, KY
Catherine Munson, Versailles, KY
Christina Lowery Allen, Versailles, KY
Mary Eyrl Winter, Versailles, KY
James Owen Hebert, Abbeville, LA
Hill Songs, LLC, Alexandria, LA
Kinder Sand Company, Inc., Alexandria, LA
Miller Boys LLC, Alexandria, LA
Roy O Martin Lumber Company LLC, Alexandria, LA
Christa Renee Guidry, Basile, LA
Curtis Johnson, Basile, LA
Dana Marie Guidry, Basile, LA
Davis Ledoux Farm, Inc., Basile, LA
Del-Gwen Enterprises, Basile, LA
Deo Lynn Guidry, Basile, LA
Eloise C. Broussard, Basile, LA
Ezola C. Williams, Basile, LA
Geneva Bellon, Basile, LA
George Dewey Mcgee, Basile, LA
Gordon R Aguillard, Basile, LA
J&S Miller Enterprises, Basile, LA
Jessie C Fontenot, Basile, LA
Louis John Guidry, Basile, LA
Michelle Stroder, Basile, LA
Mona and Nathan Johnson, Basile, LA
Nathan & Mona Johnson, Basile, LA
Patricia C. Sanders, Basile, LA
Patrick Jean Fruge et al, Basile, LA
B.H. Timber, LLC, Baton Rouge, LA
Barbara Jean Pitre Michael, Baton Rouge, LA
Betty Doelling Miller, Baton Rouge, LA
Cherie G Giblin, Baton Rouge, LA
Choupique Edgerly LLC, Baton Rouge, LA
Craig Frank Holthaus, Baton Rouge, LA
Jacklyn Buhler, Baton Rouge, LA
Jean Dupuis Joubert, Baton Rouge, LA
Jeff Peters, Baton Rouge, LA
Jodie Debetaz, Baton Rouge, LA
LPA LLC, Baton Rouge, LA
William Grant, Baton Rouge, LA
Butch's Properties LLC, Bell City, LA
Crain Lands, LLC, Bell City, LA
Jp Farms, LLC, Bell City, LA
Howard Romero, Cameron, LA
Ricky Lane Trahan Et ux, Cameron, LA
Henry Botley, Carencro, LA
Joseph R Cart, Chataignier, LA
Michael Louis Fontenot, Chataignier, LA
Charley Martin Andrepont, Church Point, LA
Chester Wimberley Sr, Church Point, LA
Martha Andrepont Rigsby, Church Point, LA
Wanna Smith Bellard, Church Point, LA
Sabine Uplift Mineral Corp., Converse, LA
J T & Barbara N Primeaux, Creole, LA
Causby Hamic, Jr., Crowley, LA
Green-Lapleau Properties, LLC, Crowley, LA
Laura Mae Gaspard Breaux, Crowley, LA
Arnold Adrian & Anna R. Flower, De Quincy, LA
Judy L. Smith, De Quincy, LA
Randall & Tonia Ann Penny Nolan, De Quincy, LA
Ronald Vincent & Betty Spears Schrader Thomas, De Quincy, LA
Erin Kogel Perez, Denham Springs, LA
Kali Kogel, Denham Springs, LA
Keri Kogel Wassum, Denham Springs, LA
Anthony Wynn Treme, Dequincy, LA
Berna Dean Como, Dequincy, LA
Bettie Lou Henagan, Dequincy, LA
Donna Beth Dupont, Dequincy, LA
Jacob Eli Bertrand, Dequincy, LA
Karen Jane Bertrand Collet, Dequincy, LA
Timothy Allen Treme, Dequincy, LA
Christina Eve Leblanc, Deridder, LA
Holton Dale Vincent, Deridder, LA
U Javi Vasquez, DeRidder, LA
Judith Ann Mcclelland Porter, Deville, LA
Jerry Wayne Courmier, Dry Creek, LA
M & G Farms, Inc, Dry Creek, LA
Barbara Williams Langley, Elton, LA
Ben Houston John, Elton, LA
Betty Jo Putnam Aguillard, Elton, LA
Christian Y. & Shonna G. Granger, Elton, LA
Christopher G. & Madeline Aguillard, Elton, LA
Coushatta Tribe Of La, Elton, LA
Darlene Dunnehoo, Elton, LA
David Ravey, Elton, LA
Donald Crawford Putnam, Elton, LA
Douglas Wayne & Rhonda R. Britnell, Elton, LA
John I. Briscoe, Elton, LA
Joseph D. Miller, Elton, LA
Laura Jeanette Vidrine, Elton, LA
Linda Faye J. Laughlin, Elton, LA
Lorenda John Poncho, Elton, LA

Appendix A

Distribution List

Margaret Ceaser, Elton, LA
Michael Etienne Cormier, Elton, LA
Octave Victor Savant, Jr., Elton, LA
Octave Victor & Carol Savant, Elton, LA
Paula J Manuel, Elton, LA
Paula Manuel, Elton, LA
Roderick G. Bertrand, Elton, LA
Ronald R. & Anissa Ann Reed, Elton, LA
Rosaline L. Medford, Elton, LA
Teresa Gayle Peloquin, Elton, LA
Amber Arnaud, Eunice, LA
August III Leonards, Eunice, LA
Belle Manuel, Eunice, LA
Blane Allen Frey, Eunice, LA
Brady Jacque Sanders, Eunice, LA
Brandon Keith And Heidi Mcfarlain Stagg, Eunice, LA
Burgess N Veillon and Loretta B Veillon Revocable Living Trust, Eunice, LA
Cobb Realty Inc., Eunice, LA
D John & Deanna Brown Lafleur, Eunice, LA
Daniel Hans Koch, Eunice, LA
Don E. Leonards, Eunice, LA
Donald Ray Johnson, Eunice, LA
Edmund C & Alberta Heinen Frey, Eunice, LA
Ellen Bazinet Medlin Etal, Eunice, LA
Elvin Floyd Vidrine, Eunice, LA
Eric Lawrence and Katherine Bollich, Eunice, LA
Eric W and Felecia May, Eunice, LA
Fruge Frey Ranch & Farms LLC, Eunice, LA
Gary Frey, Eunice, LA
Gene J. Leonards, Eunice, LA
Gerald Ortaire & Claudia S Derouen Larson, Eunice, LA
Harry Louis & Kaye Langley Miller Jr, Eunice, LA
Jackie Derrel Mcclelland, Eunice, LA
James Chester Jr & Suzanne Marie Pavur Wimberley, Eunice, LA
Jennifer Jane Gillette Brown, Eunice, LA
John P Higgins, Eunice, LA
Johnson Family Farm LLC, Eunice, LA
Joseph Lee Granger, Eunice, LA
Judson Ardoin, Eunice, LA
Justin Francois, Eunice, LA
Keith Mcclelland, Eunice, LA
Luther Ray Young, Eunice, LA
Marc Kenneth Savoy, Eunice, LA
Marcel & Stacie Johnson Jr, Eunice, LA
Mary Vivian G Feucht, Eunice, LA
Merrick Blake Miller, Eunice, LA
Michael Lyn & Elizabeth Anne Vidrine, Eunice, LA
Mildred B Lally Living Trust, Eunice, LA
Monty Lou Putnam Stoute, Eunice, LA
Nadine Lejeune, Eunice, LA
Neil Lejeune, Eunice, LA
Patti Carol Caswell, Eunice, LA
Peter G & Ann Adreienne Miller, Eunice, LA
Peter Ray & Nancy Aguillard Lafleur, Eunice, LA
Philip Mark and Pamela Rougeau Bollich, Eunice, LA
Randall Paul & Renea Soileau Rougeau, Eunice, LA
Robert Dean Arnaud, Eunice, LA
Robert J Soileau Farms Inc, Eunice, LA
Russell A Stockwell, Eunice, LA
Ruth Ellen Dupre Duplechin, Eunice, LA
Samuel Medlin, Eunice, LA
Stephen A Guillory, Eunice, LA
Stephen Cody Fontenot, Eunice, LA
Thomas H Mcclelland, Eunice, LA
Tony J Lejeune, Eunice, LA
Valley Jr Vidrine, Eunice, LA
Wesley Harvey, Evans, LA
Betty M. Whiteheard Irrevocable Trust, Forest Hill, LA
Stephen Andrew Ellender, Geismar, LA
Walter Jr Stagg, Glemora, LA
Bobby Lewis Potter, Glenmora, LA
Michael George & Sheila Renee Davis, Glenmora, LA
Neil Charles Treme, Glenmora, LA
Benjamin Carl Welch Sr, Grand Chenier, LA
Carlos Monroe Welch, Grand Chenier, LA
J C Reina, Grand Chenier, LA
Leslie Griffith, Grand Chenier, LA
Leslie Russell Welch, Grand Chenier, LA
Lonnie Glenn & Carolyn Harper, Grand Chenier, LA
Malcolm Lyle Crain Estate, Grand Chenier, LA
Calvin Elton Trahan, Hackberry, LA
David Victor Currie, Hackberry, LA
Janet Ann Desormeau Williams, Hackberry, LA
Velma Lowery, Hackberry, LA
Charles Joubert, Houston, LA
Jason Lee Young, Iota, LA
Larry R. & Juanita M. Wittge, Iota, LA
Randal Lane Johnson, Iowa, LA
Mona Johnson Fontenot, Jarreau, LA
Charles Rene Houssier III, Jennings, LA
Debra D. Edwards, Jennings, LA
John Allen Miller, Jennings, LA
Krielow Farms Inc, Jennings, LA
Linda Stafford Lejeune, Jennings, LA
Mary A. Martinez, Jennings, LA
Michelle Macaluso Gunnell, Jennings, LA
Michelle P. Guidry, Jennings, LA
Olivana H. Hebert, Jennings, LA
Paula Guidry, Jennings, LA
Rouge O LLC, Jennings, LA
Theresa L. Demmel, Jennings, LA
Marie Edna Gaspard, Kaplan, LA
Ashley Medlin, Keithville, LA

Appendix A

Distribution List

Alichia A Bushnell, Kinder, LA
Alllen Joseph Morehead, Kinder, LA
Alvin Pousson, Jr., Kinder, LA
Andre Richard, Kinder, LA
Annie Lee Actlis, Kinder, LA
Anthony Keith Richard, Kinder, LA
Ben Richard, Kinder, LA
Bertha Botley Flanagan, Kinder, LA
Bobby Ray Cottongin, Kinder, LA
Caleb Butts, Kinder, LA
Charles Richard, Kinder, LA
Charles Timothy Kingrey, Kinder, LA
Christopher Clark, Kinder, LA
Damian & Evelia Bryant Miles, Kinder, LA
Damian Miles, Kinder, LA
Daniel Kerr Morehead, Kinder, LA
Danny Bell, Kinder, LA
Durell Eaglin, Kinder, LA
Earlene B. Corbin, Kinder, LA
Emma Miles Harris, Kinder, LA
Estate of August Botley, Kinder, LA
Evain Guillory, Kinder, LA
Evelia Bryant Miles, Kinder, LA
Gene Michael Karam, Kinder, LA
Gerald Richard, Kinder, LA
Green Oak Cemetary Association, Inc., Kinder, LA
Harmon's Plumbing, Inc., Kinder, LA
Irene A Henry, Kinder, LA
James Tillis, Et ux, Kinder, LA
John Troy Rawlings, Kinder, LA
Joseph Wilton Eaglin, Jr., Kinder, LA
Joyce Monday, Kinder, LA
Kari Ware, Kinder, LA
Kay Sonnier, Kinder, LA
Kurt James Morehead, Kinder, LA
Laine Fontenot, Kinder, LA
Lee Ester Prudhomme, Kinder, LA
Leonard Eaglin, Kinder, LA
Lionel Richard, Kinder, LA
Lonniel Clark, Kinder, LA
Lori Ann Morehead, Kinder, LA
Margie Fontenot Woodcock, Kinder, LA
Mary Earline E. Leonard, Kinder, LA
Matt Fontenot, Kinder, LA
Michael Delatoisse, Kinder, LA
Michael Richard, Kinder, LA
Michael W. Gidlow, Kinder, LA
Peggy Brown Perkins, Kinder, LA
Percy Morehead, Kinder, LA
Peter J Unkel, Kinder Carol Co - Unkel Farms, Kinder, LA
Phillip M. Morrow, Kinder, LA
Randy Charles & Velma L. Pousson, Kinder, LA
Raphael Durosseau, Kinder, LA
Reginald Richard, Kinder, LA
Rhonda Botley Holman, Kinder, LA
Rodney & Lorraine Morehead, Kinder, LA
Rodney Richard, Kinder, LA
Rose Williams Hamilton, Kinder, LA
Roy Ellis & Cindy Faye Miles, Kinder, LA
Shirley Botley, Kinder, LA
Tami R. Johnson, Kinder, LA
The Ethel Sacker 2008 Trust, Kinder, LA
Tracy Miles Pruet, Kinder, LA
Venise Eaglin, Kinder, LA
W. S. Kingrey, Inc., Kinder, LA
Warren Hurron, Kinder, LA
Wayne Bell, Kinder, LA
John Lenhart, LaBlanc, LA
Bill Vidrine, Lafayette, LA
Bobby Glenn Young, Lafayette, LA
Gereline Benoit Phillips, Lafayette, LA
James Patrick Herrington, Lafayette, LA
JP-8, LLC, Lafayette, LA
Ken Sillavan Allied Development, Inc., Lafayette, LA
Mamou Seed Rice Co Inc, Lafayette, LA
Paula Sue Gillette, Lafayette, LA
Rawlin Jay Johnson, Lafayette, LA
Sabine Outback North LLC, Lafayette, LA
Steve Dupuis, Lafayette, LA
Willis Ray Vidrine, Lafayette, LA
Michelle G Broussard Mouton, Lake Arthur, LA
3n75 Trust, Lake Charles, LA
Abear-Nunez Farms, LLC, Et al, Lake Charles, LA
Ann Crowe Lindsay, Lake Charles, LA
Anthony Lynn Lowery, Lake Charles, LA
Arthur Coney Estate, Lake Charles, LA
Barbara Fowler Thomas, Lake Charles, LA
Barbara L Houssiere, Lake Charles, LA
Barbara Louise Houssier, Lake Charles, LA
Bel Khourly Black Bayou Properties, LLC, Lake Charles, LA
Belarbor Timber, LLC, Lake Charles, LA
Belinda Faye Chretien, Lake Charles, LA
Bel-Krause Properties, Inc., Lake Charles, LA
Betty Jean Morehead Eaglin, Lake Charles, LA
Betty Jean Verret Credeur, Lake Charles, LA
Billy Joe Cole, Lake Charles, LA
Blake A. Guidry, Lake Charles, LA
Blake Brothers LLC, Lake Charles, LA
Blake Brothers, LLC, Lake Charles, LA
Burning River Energy Inc Et al, Lake Charles, LA
Calcasieu Parish Police Jury, Lake Charles, LA
Calcasieu Parish School Board, Lake Charles, LA
Caltrax. Inc, Lake Charles, LA
Canal State of LA, Lake Charles, LA
Carmouche Family Properties, LLC, Lake Charles, LA
Carolyn J. Gifford, Lake Charles, LA

Appendix A

Distribution List

Cary Ross Mckee, Lake Charles, LA
Charlene Estelle Johnson Douget, Lake Charles, LA
Charles Terry Hebert, Lake Charles, LA
Charlotte K. Skinner, Lake Charles, LA
CKX Lands Inc, Lake Charles, LA
Clark Real Estate Enterprises, Lake Charles, LA
Constance Elaine Cormier, Lake Charles, LA
Coral Lee Crain Byrd, Lake Charles, LA
Crowe Property Investments LLC, Lake Charles, LA
Curry Corporation, Lake Charles, LA
Dale H Beam, Lake Charles, LA
Daniel Richard, Lake Charles, LA
David W Beam, Lake Charles, LA
Deborah Cormier Fisher Special Needs Trust, Lake Charles, LA
Don Allen Steen, Lake Charles, LA
Donal Joseph Ledoux, Sr, Lake Charles, LA
Donna Jean Eaglin Carroll, Lake Charles, LA
Donna Lynn Ellender Lowery, Lake Charles, LA
Donnie Monceaux, Lake Charles, LA
Edward Follett Bass, Lake Charles, LA
Edward M. Nichols, Jr, Lake Charles, LA
Edward McCain, Lake Charles, LA
Edwin Robinson, Lake Charles, LA
Elizabeth Ann Fuselier Thomas, Lake Charles, LA
Eloise Fusillier Et al, Lake Charles, LA
Estate Of J. G. Gray, Lake Charles, LA
F. Miller & Sons, LLC, Lake Charles, LA
Fooz LLC, Lake Charles, LA
Frances Jane Nelson, Lake Charles, LA
Frances L Perry, Lake Charles, LA
Fredrick James Nunez Granger, Lake Charles, LA
GCPC, LLC, Lake Charles, LA
Globe-Texas Co, Lake Charles, LA
Goldsmith Farms, LLC, Lake Charles, LA
Gordon E Steen, Jr, Lake Charles, LA
H.C. Drew Estate, Lake Charles, LA
Harold Guidry, Jr., Lake Charles, LA
Hebert Abstract Co Inc, Lake Charles, LA
Henning Management LLC, Lake Charles, LA
Hillsboro Corporation, Lake Charles, LA
J Lawton Company LLC, Lake Charles, LA
J. Lawton Company, LLC, Lake Charles, LA
J.S. Broussard Farms LLC, Lake Charles, LA
James C Beam Et al, Lake Charles, LA
James Francis Carnahan, Lake Charles, LA
James Mark Treme, Lake Charles, LA
James Scott Vincent, Lake Charles, LA
James Steven Broussard, Lake Charles, LA
Janet Mahaffey Postell, Lake Charles, LA
Janet S Leboeuf, Lake Charles, LA
Jardine Properties, Inc., Lake Charles, LA
Jeanette Mathis, Lake Charles, LA
Jerry Dale Hand Lefort, Lake Charles, LA
Jesse Ryan Habetz, Lake Charles, LA
John Craig Moss, Lake Charles, LA
John Kenneth Patin Trust and Peter Durand Patin Trust, Lake Charles, LA
John Paul Crain Qtip #1 Trust for Neil Randall Crain, Lake Charles, LA
Jon E. Hebert, Lake Charles, LA
Judith Marie Wood, Lake Charles, LA
Justin & Caitlan Clark, Lake Charles, LA
JWG, LLC, Lake Charles, LA
Katherine Krause Blake Trust, Lake Charles, LA
Kelly Guildry Robinson, Lake Charles, LA
Kenneth Gerald, Et ux Merchant, Lake Charles, LA
Kenny Constance, Lake Charles, LA
Kerry Traham, Lake Charles, LA
Kim Broussard, Lake Charles, LA
King Minerals LLC, Lake Charles, LA
KLPC, LLC, Lake Charles, LA
L & H Partnership, Lake Charles, LA
Lee Ellender, Lake Charles, LA
Lewing Properties, Inc., Lake Charles, LA
Linda Faye Joubert, Lake Charles, LA
LMD Investments Limited Partnership, Lake Charles, LA
LMD Investments Limited Partnership, Et al, Lake Charles, LA
Ltp Partnership, LP, Lake Charles, LA
Lucille Crosby, Lake Charles, LA
Marie Jeanette Rogers Benoit, Lake Charles, LA
Marshalls Of Orchard, Inc, Lake Charles, LA
Martha A Babcock Et al, Lake Charles, LA
Martha L. Gillman, Etal, Lake Charles, LA
Mary Gennell S. Christian, Lake Charles, LA
Mary Geraldine Lowery Cirello, Lake Charles, LA
Mary Hollins Trust, Lake Charles, LA
Matt Scott Cormier, Lake Charles, LA
Mayboy Inc, Lake Charles, LA
Mcclelland Farm Properties LLC, Lake Charles, LA
Melanie Hebert Ireland, Lake Charles, LA
Melissa Ann Moss Cardone Et al, Lake Charles, LA
Michael Joubert, Lake Charles, LA
Mount W Talbot Family Trust, Lake Charles, LA
N & T Rentals, LLC, Lake Charles, LA
Patricia Baggett, Lake Charles, LA
Patti Jean Ellender Phillips, Lake Charles, LA
PBA Properties, LLC, Lake Charles, LA
Pruitt Company LLC, Lake Charles, LA
PWK Timberland, LLC, Lake Charles, LA
Raleigh Newman Et ux, Lake Charles, LA
Rebecca Lynn Treme Williamson, Lake Charles, LA
Reggie Nyle Leslie, Lake Charles, LA
Richard Sere Kleinschmidt, Jr, Lake Charles, LA
Rickie Dalton Lyons, Lake Charles, LA
Robby Robinson, Lake Charles, LA
Robert Ellis Moss Jr, Lake Charles, LA

Appendix A

Distribution List

Robert Gene And Debra Ann Lockett, Lake Charles, LA
Robert L. & Sherri Jeanine Streitmatter, Lake Charles, LA
Roger L. & Yvonne Miller, Lake Charles, LA
Ronnie Winfrey, Lake Charles, LA
Sara Nicole Doucet, Lake Charles, LA
Scott Edwin Sandoz, Lake Charles, LA
Scotty G. Rozas, Lake Charles, LA
Secundus Corporation, Lake Charles, LA
Sharon Marie Eaglin James, Lake Charles, LA
Stephen Lowery, Lake Charles, LA
Stream Family Limited Partnership, Lake Charles, LA
Stream Family Trust, LLC, Lake Charles, LA
Strickland Louisiana Properties, LLC, Lake Charles, LA
Sue N Mccardle, Lake Charles, LA
Tamara Hebert Bourque, Lake Charles, LA
Terry D. Fowler, Lake Charles, LA
Tiffany Barber, Lake Charles, LA
Tower Land Company LLC, Lake Charles, LA
TTD Holdings, LLC, Lake Charles, LA
Vicki Diane Ellender Campbell, Lake Charles, LA
Virginia H Webb Kelly M, Lake Charles, LA
Virginia Hollins Webb, Lake Charles, LA
Virginia M Gayle Et al, Lake Charles, LA
W. J. Gayle and Sons, Inc., Lake Charles, LA
Wadean Lee, Lake Charles, LA
Wadine Winfrey Lee, Lake Charles, LA
Whitney Joubert, Jr, Lake Charles, LA
William B. Lawton Family Limited Partnership, Lake Charles, LA
William Johnston, Lake Charles, LA
William Mitchell Perkins, Lake Charles, LA
Wise Land & Title Co Inc, Lake Charles, LA
Wkt Properties, Lake Charles, LA
Woodbrook, Inc., Lake Charles, LA
YMO, LLC, Lake Charles, LA
Moss/Vincent Properties LLC, Lake Charles La, LA
Chad J. & Danielle R. Wright, Leblanc, LA
Dwan Susan M. Leblanc, Leblanc, LA
James W. Potter, Leblanc, LA
John Paul & Kimerly Ann Lenhart, Leblanc, LA
Lana Potter Davis, Leblanc, LA
Richard B. Howell, Leblanc, LA
Shea Marette Ledoux, Leblanc, LA
Troy Brannon, Jr., Leblanc, LA
William E. Lenhart, III, Leblanc, LA
William Lee Marquez, Leblanc, LA
Adam Kogel, Livingston, LA
Freeman Joseph Ledoux Estate, Et al, Longville, LA
Dr B J & Lester Manuel, Mamou, LA
Gerald Fontenot, Mamou, LA
Susan O'connor, Mandeville, LA
Donald Perkins & Katherine Little, Many, LA
Rosalyn J. Whitman, Merryville, LA
Keith Stafford, Metairie, LA
Mary Elaine Koonce, Metairie, LA
Polly Ann Hamilton Tedrow, Metairie, LA
Rodney Douglas Vincent Et al, Metairie, LA
Glynn E. Putnam, Monroe, LA
Shirley Ann Joubert Harmon, Monroe, LA
Ira A. Breaux, Morgan City, LA
Pernell Livingston, New Iberia, LA
Entergy Texas, Inc., New Orleans, LA
Nita Glenn Putnam, New Orleans, LA
Phoenix Development Company, Inc., New Orleans, LA
Jullin Renthrope, New Orleasns, LA
Mona G. Sepulvado, Noble, LA
Dixon Family Timber, LLC, Oakdale, LA
Ellis Quave, Oakdale, LA
John & Betty Healy, Oakdale, LA
Allen Parish School Board, Oberlin, LA
Allen Parish School Board, Oberlin, LA
Bernadette Guillory, Oberlin, LA
Jim Prudhomme, Oberlin, LA
Schumacher Briscoe Farm, LLC, Oberlin, LA
Shawn Carthorn, Oberlin, LA
Virginia B. Wells, Oberlin, LA
Aubretta J. Eaglin, Opelousas, LA
Cynthia Charlie, Opelousas, LA
Frank Morris & Janice Pitre, Opelousas, LA
Haas Hirsch, Opelousas, LA
HHW-Evangeline LLC, Opelousas, LA
Opelousas St. Landry Realty, Opelousas, LA
Clayton Earl Marcantel, Pineville, LA
Cleco Power, LLC, Pineville, LA
Darlene Reeves Horton, Pitkin, LA
Janice Cormier Cole, Pitkin, LA
Allison Ann Windham, Port Allen, LA
Moss Lake Holdings, LLC, Port Allen, LA
Brenda Mistrot, Port Barre, LA
Choupique & Sulphur LLC, Prairieville, LA
Gordon H. & Susan Randall Gill, Prairieville, LA
John Anthony Lowery Jr, Prairieville, LA
Mary Hamilton, Prairieville, LA
Susan Randall Gill, Prairieville, LA
Billie Stillings Mc Michael, Ragley, LA
Brian Alan & Kara Guillory, Ragley, LA
Brown Family Farms, LLC, Ragley, LA
Clifford L. Hantz, Ragley, LA
Danny Ray & Lovie Carrol Dickerson, Ragley, LA
David R. And Mary Ann Daigle, Ragley, LA
Deanna Darbonne Habetz, Ragley, LA
Dorothy Johnson, Ragley, LA
Edward James Guidry Trust, Ragley, LA
Emily Claire Habetz, Ragley, LA
Frankie Leslie Brown, Ragley, LA

Appendix A

Distribution List

Giles Glen Brown, Ragley, LA
Jackie Lynn Benoit, Ragley, LA
Jimmie Ann Meaux Mc Lean, Ragley, LA
John Brent Meaux, Ragley, LA
Joshua William Habetz, Ragley, LA
Michael Means, Ragley, LA
Michael W. Guidry, Ragley, LA
Michael Wayne & Raenell Savell, Ragley, LA
Natalie Janee Habetz, Ragley, LA
Paul Verbis & Alece Jeline Lafleur, Ragley, LA
Preston L. Dartez, Sr., Ragley, LA
Sam Lawrence & Susan Cavys, Ragley, LA
Shera Fowler, Ragley, LA
Tommy D. Brown, Ragley, LA
Chad Edward Miller, Rayne, LA
Earl Breaux, Rayne, LA
Homer Breaux, Rayne, LA
Houston Breaux, Rayne, LA
Ludovic Miller Estate, Rayne, LA
Mable Gilbert, Rayne, LA
Marion J Miller, Rayne, LA
Melvin Breaux, Rayne, LA
Moise Breaux, Rayne, LA
Rosa Mae Waters, Rayne, LA
Ryan Keith Miller, Rayne, LA
Billie J. Lyles, Reeves, LA
Camp Pearl Ministries, Reeves, LA
Creel Memorial Gardens Association, Inc., Reeves, LA
Horace Joel Airhart, Reeves, LA
James D. & Billie J. Lyles, Reeves, LA
James David Lyles, Reeves, LA
Jerry Glen & Beverly Thomason, Reeves, LA
Patsy Lyles Cavenah, Reeves, LA
Vernice L. Lyles, Reeves, LA
Eve N Garbarino Jr Et al, Roanoke, LA
Julie Berry Et al, Roanoke, LA
Carolyn O'bryan Sutton, Ruston, LA
August Botley III, Senton, LA
Hancock Timberland Xi, Inc., Shreveport, LA
John Hancock Life Ins. Co. (USA), Shreveport, LA
Joyce Elaine Lowery Wofford, Shreveport, LA
Kathy Fair Patterson, Shreveport, LA
Nore Vincent Winter, Shreveport, LA
Warner Glenn Duhon, Shreveport, LA
William Taylor Lyles, Sieper, LA
William Conville Hobgood, St. Francisville, LA
Adam (Nmi) Daigle Et ux, Sulphur, LA
Adam Wayne & Angela Habetz, Sulphur, LA
Alford Clooney Savoie, Sulphur, LA
Alison Wilson, Sulphur, LA
Allen James Leblanc Sr, Sulphur, LA
Amanda Rhodes Jones Et vir, Sulphur, LA
Andre Davidson, Sulphur, LA
Anthony Todd Matthews, Sulphur, LA
Barry Edgar Russell, Sulphur, LA
Beverly Jane Moss Scholtens, Sulphur, LA
Bill Craig Neugent, Sulphur, LA
Boyd Dale Smith, Sulphur, LA
Brant Allan Parish Et ux, Sulphur, LA
Brenda Faye Cuvillier Trahan, Et al, Sulphur, LA
Brenda Sue Sumpter Et vir, Sulphur, LA
Brendia Colligan, Sulphur, LA
Bryan Douglas O'connor, Sulphur, LA
C.E. Benckenstein Living Trust, Sulphur, LA
Carl Henry Vincent, Sulphur, LA
Carol Ruth Brannon Stetz, Sulphur, LA
Chad Carlin Koonce Et ux, Sulphur, LA
Chad Lee Constance, Sulphur, LA
Charles David Benckenstein, Sulphur, LA
Charles Howell Atherton Et ux, Sulphur, LA
Charles Kent Carlin Et ux, Sulphur, LA
Charles Martin Koonce, Sulphur, LA
Charlie Atherton, Sulphur, LA
Christopher Arnold Chaisson, Sulphur, LA
Christopher Isaac Comeaux, Sulphur, LA
Clements Lejeune Jr Et ux, Sulphur, LA
Clopha Darbonne Jr Estate Et al, Sulphur, LA
Cody W. Oliver Et ux, Sulphur, LA
Cody Wayne Goodner Et ux, Sulphur, LA
Corey James Doucet Et ux, Sulphur, LA
Corey Lalonde, Sulphur, LA
CTJ Investments LLC, Sulphur, LA
Curtis Paul Cart Et ux, Sulphur, LA
D & G Construction, LLC, Sulphur, LA
David William Sittig, Et ux, Sulphur, LA
Dean Lee Manning Et ux, Sulphur, LA
Debora Ann Constance Dixon, Sulphur, LA
Denise Julia Church, Sulphur, LA
Dennis Clyde Carruth Et ux, Sulphur, LA
Dept. Of Public Works, Sulphur, LA
Domingo Gonzales Ledesma Et ux, Sulphur, LA
Donald and Sarah Cowick Living Trust, Sulphur, LA
Donald James Beeler, Sulphur, LA
Donald Joseph Elkins Et ux, Sulphur, LA
Donald Lee Lapoint Et ux, Sulphur, LA
Edmond Trahan Et ux, Sulphur, LA
Edward Buryl Baty, Sulphur, LA
Edward, Dan Chapman, Sulphur, LA
Elder Marie Richard Lyons, Sulphur, LA
Eli Benjamin and Leslie Denise Beaty, Sulphur, LA
Elizabeth Vincent, Sulphur, LA
Erica Janeen Duhon, Sulphur, LA
Ernest A Houssier Jr Et al, Sulphur, LA
Ernest E., Et ux Parker, Sulphur, LA
Etha Belle Courmier, Sulphur, LA
Fingerlake Estates Corporation Inc, Sulphur, LA
Floyd Williams, Jr., Et ux Stains, Sulphur, LA
Garry L Glass Et ux, Sulphur, LA
Gary Wayne, Et ux Babineaux, Sulphur, LA

Appendix A

Distribution List

Georgia A Constance Et al, Sulphur, LA
Gerald Clinton Burnett, Sulphur, LA
Gerald Dwayne Gilbert Et ux, Sulphur, LA
Geraldine Marie Verret Kyle, Sulphur, LA
Gilbert Leon Royer, Sulphur, LA
Glenn Scott Seaford Et ux, Sulphur, LA
Gloria Opel D. Thomas, Sulphur, LA
Gordon Allen Farnum, Sulphur, LA
Grace Marie Wilson, Sulphur, LA
Henry Charles Semple, Sulphur, LA
Horace Curtis Vincent III Et ux, Sulphur, LA
J E Trust, Sulphur, LA
Jacqueline Hope Matthews, Sulphur, LA
Jaime and Diana Pena, Sulphur, LA
James Larry Lafleur Et ux, Sulphur, LA
James T. Quinn, Sulphur, LA
James W. C. Willson, Sulphur, LA
James Wallace Ellender Jr., Sulphur, LA
Janet Lea Richard, Et vir Langley, Sulphur, LA
Jason Brian Fuqua Et ux, Sulphur, LA
Jason Edward Nicholas, Sulphur, LA
Jay Ellender, Sulphur, LA
Jayde Allen Berwick, Sulphur, LA
Jem Testamentary Trust, Sulphur, LA
Jenifer Lynette Dugas Anderson, Sulphur, LA
Jeremy Paul, Et ux Caldwell, Sulphur, LA
Jerry Wayne Winters Et ux, Sulphur, LA
Jessica Pearson Logan Et al, Sulphur, LA
Jessica Pearson Logan, Et al, Sulphur, LA
Joanne Jordon Fontenot, Sulphur, LA
Jody Lynn Vincent Et al, Sulphur, LA
Joel Edward Langford Et ux, Sulphur, LA
John Alton Currie, Sulphur, LA
John Carl Thomson, Sulphur, LA
John Ernest Bergstedt, Sulphur, LA
John Rudy Trahan, Sulphur, LA
Jose (Nmi) Hilerio, Sulphur, LA
Josh Paul Church Et ux, Sulphur, LA
Judith Clifton Bennett, Sulphur, LA
Judy Ann Hulett, Sulphur, LA
Julius A Ogea, Et al, Sulphur, LA
Karen & Lonnie Nickles, Sulphur, LA
Karen Ellender Nichles, Sulphur, LA
Keith Michael Lafauci Et ux, Sulphur, LA
Keith Wayne Parker, Sulphur, LA
Kelly Marie Fuqua Et vir, Sulphur, LA
Ken Racca, Sulphur, LA
Kenneth Charles Walker Et ux, Sulphur, LA
Kenneth Lawrence Ellender, Sulphur, LA
Kenneth Paul Lyons Et al, Sulphur, LA
Kenneth Paul, Et ux Lyons, Sulphur, LA
Kevin James Comeaux, Sulphur, LA
Kleat LLC, Sulphur, LA
Krause & Managan Lumber Company, Sulphur, LA
L. L. Lacy, Sulphur, LA
Larry Carrier Dirt Work LLC, Sulphur, LA
Larry James Carrier, Sulphur, LA
Lena McArthur, Executive Director, West Calcasieu Chamber of Commerce, Sulphur, LA
Leon Lawrence Currie II, Sulphur, LA
Leon Lawrence Currie II, Sulphur, LA
Leslie L. Barker, Sulphur, LA
Linda Louise West, Sulphur, LA
Linda Pickett, Sulphur, LA
Lionel Joseph Mestayer Jr, Sulphur, LA
Louis Calvin Ashworth Jr Et ux, Sulphur, LA
Lucas Kelly Maddox Et ux, Sulphur, LA
Luke Gerard Leblanc, Sulphur, LA
Margaret Lamont Williams, Sulphur, LA
Marie Louise Antoinette Doiron Estate, Sulphur, LA
Mark Wayne and Sharon Reed, Sulphur, LA
Martha Ann Clifton, Sulphur, LA
Marvin Jean Lyons Et al, Sulphur, LA
Mary Granger, Sulphur, LA
Mary Noelie Semple Lott, Sulphur, LA
Matthew Linton Vincent Et al, Sulphur, LA
Micha Faye Sonnier Lowry, Sulphur, LA
Nathan Thomas Burnett, Sulphur, LA
Nelson Family Irrevocable Trust, Sulphur, LA
Norman Dale Champagne Et ux, Sulphur, LA
North Sulphur Building Association Inc, Sulphur, LA
Palermo Land Company, Inc, Sulphur, LA
Palvest, Inc., Sulphur, LA
Patsy R. Little Trahan, Sulphur, LA
Paul Alan, Et ux Brown, Sulphur, LA
Phillip Ray, Et ux Allen, Sulphur, LA
Preston J Stelly Jr Et ux, Sulphur, LA
Rahn Lanier Drost Et ux, Sulphur, LA
Randal Joseph Trahan, Sulphur, LA
Randy Ethan Babaz Et ux, Sulphur, LA
Richard Wayne and Dinah Fontenot, Sulphur, LA
Richard Wayne Frauenberger, Et ux, Sulphur, LA
Robert Charles Babcock Et al, Sulphur, LA
Robert Charles Babcock Et ux, Sulphur, LA
Robert E. Etux Broussard, Sulphur, LA
Robert Joeph Constance, Sulphur, LA
Robert Lee, Jr. Trahan, Sulphur, LA
Rodney Lee Williams, Sulphur, LA
Ronald Eugene Lawrence Et vir, Sulphur, LA
Ronald R. & Anissa Ann Reed, Sulphur, LA
Ruby Mae S Constance Et al, Sulphur, LA
Ryan Nicholas Cormier, Sulphur, LA
Sheila Jo Constance Miller, Sulphur, LA
Sherrell Lynn Welton Labove, Sulphur, LA
Southern Home Rentals Inc, Sulphur, LA
Stacy Lynn Helms Et ux, Sulphur, LA
Stephanie Miles Ughovwa, Sulphur, LA
Sulphur Group LLC, Sulphur, LA
Tab Perkins, Sulphur, LA
Terri Lea McMurray, Sulphur, LA

Appendix A

Distribution List

Thaddeus Brian Hoffpauir, Sulphur, LA
Todd Ercell Perkins, Sulphur, LA
Todd Patrick Broussard, Sulphur, LA
Vicki Frankland Nezat, Et al, Sulphur, LA
Vicky Winters, Sulphur, LA
Vito Tramonte, Sulphur, LA
West Family Irrevocable Trust, Sulphur, LA
William Michael Price Et ux, Sulphur, LA
William Neal Leger Et ux, Sulphur, LA
Norman R Nicko, Sunset, LA
Pamela Post Boudreaux, Thibodaux, LA
Cehpus Mitchell Duhon Estate, Ventress, LA
Cephus Richard Duhon, Ventress, LA
Dewey Duhon, Ventress, LA
Hattie Duhon Smith, Ventress, LA
Arthur L Courville, Ville Platte, LA
Duane Richard Smith, Ville Platte, LA
Freda Denise Mcdaniel, Ville Platte, LA
Leonard G & Mary Alice A Fontenot, Ville Platte, LA
Wilbur Carter, Ville Platte, LA
William Thelma Lavergne Family, LLC, Ville Platte, LA
Dena Janell Johnson, Watson, LA
Pamela Mae E. Johnson, Et al, Watson, LA
Wanda Gayle Johnson, Watson, LA
Athony Lynn Hantz, Westlake, LA
Baggett Enterprises, LLC, Westlake, LA
George R. Scalia, Westlake, LA
Jeffrey Martin, Westlake, LA
Mayo Realty Co Inc, Westlake, LA
Northfork Enterprises, LLC, Westlake, LA
Patricia Ann Braeux, Westlake, LA
Annise Faye Mcduff, Youngsville, LA
Kevin Lee Fuselier and Michelle Renee Fuselier Boutin, Youngsville, LA
Children's Hospital Medical Center, Boston, MA
EIP Calcasieu, LLC, Baltimore, MD
Katherine Birnic, Baltimore, MD
Fitzhugh Elder, III, Curchton, MD
Sheila Botley Burgess, Florissant, MO
Howard Shirla McFaddin c/o Michael R. Perry, Poplar Bluff, MO
Charles Donald Hembree, Carriere, MS
David Richard, Clinton, MS
Kristin Monique Farr Broussard, Hattiesburg, MS
Cerisa Lynn Epps, Jackson, MS
Frietta Nashae Epps, Jackson, MS
Heibertg. Epps, Jackson, MS
MWF IV Acadia, LLC, Jackson, MS
Rochelle Epps, Jackson, MS
Valerie C. Epps, Jackson, MS
Zabrina Faye Epps, Jackson, MS
Chemical Waste Management, Inc., Madison, MS
Alan Humphrey, Project Engineer, Sempra U.S. Gas & Power, Mount Olive, MS
Ernest Keaton Young, Oxford, MS
Mitchell, Jr. Young, Oxford, MS
Wendell Wilson, Summit, MS
WPH McFaddin, IV, Dexter, MT
Frank Robert Clifton, Chapel Hill, NC
Boston Timber Opportunities, LLC, Charlotte, NC
Pamela Ann Eaglin Hebert, Fort Bragg, NC
Barbara Miller, Garner, NC
The Ellen P. Nealy Living Trust, Greensboro, NC
The Ellen P. Nealy Living Trust of 1992, Greensboro, NC
The Ellen P. Nealy Living Trust of 2004, Greensboro, NC
Megan Weir, Kannapolis, NC
Smith Family Trust, Raleigh, NC
Mary Lou Sortino, Omaha, NE
Mary Jane Nelson Donofrio, Brick, NJ
BASF Corporation, Florham Park, NJ
James Lamar Nelson, Kenilworth, NJ
Daniel P. O'Bryan & Leo Francis O'Bryan, Jr., Albuquerque, NM
Turrentine Frankllin, Las Cruces, NM
Pamela Lebrun, Rio Rancho, NM
Thomas Allen Barr, Santa Fe, NM
Leslie Jane Hinton, Sante Fe, NM
Dann M Thomasson Et al, Silver City, NM
R. Russell McMahon Estate, Silver City, NM
Mildred C Addison, Las Vegas, NV
Myrtis Ann Tanner, Las Vegas, NV
C.B. Claypool c/o Patricia Evans, Pahrump, NV
Dorothy S. Brooke, Brooklyn, NY
Marion Brooke Worth, Locust Valley, NY
Richard Evert Karlsson, Staten Island, NY
Floyd Lowery, Carlisle, OH
Madelyn Darbonne, Toledo, OH
Ivolee Nash Estate, Bethany, OK
Leboeuf Land & Investments LLC, Idabel, OK
Rebecca Griffith Kendall, Tulsa, OK
Renee H Tuthill Trusts, Tulsa, OK
Richard D Griffith Sr Estate, Tulsa, OK
Richard Griffith Jr, Tulsa, OK
Transcontinental Gas Pipeline Corp, Tulsa, OK
Crown Pine Timber 4 LP, Portland, OR
Crown Atlantic Co., McMurray, PA
Amy Mccoubrey, Philadelphia, PA
John David Karlsson, Hope Valley, RI
Marion Lane West, Cordova, TN
Charles R. Johnson, Jackson, TN
Mitchel Ross Lagrone, Oakland, TN
Uel Scott Clanton, Alvarado, TX
Gladys City Companies, Amarillo, TX
Hubert Breaux, Anahuac, TX
Julie Garbarino Buisson Et al, Arlington, TX

Appendix A

Distribution List

Paula Lee Harris Paus, Audrey, TX
3n75 Trust, Austin, TX
C.J. Hebert, Austin, TX
David L. Broadus, Austin, TX
Joan Donaldson Watkins, Austin, TX
Kelly M Hollins Et al, Austin, TX
Lucas Investments, LLC, Austin, TX
Philip B. Lucas, Jr., Austin, TX
Rebecca Hensley, Regional Director, Ecosystem Resources Program, Texas Parks & Wildlife Dept, Coastal Fisheries Division, Austin, TX
Ben C. Hebert Heirs, Beaumont, TX
Black Schroeder, Beaumont, TX
Bonnie Faul, Beaumont, TX
Caldwell Company Trust, Beaumont, TX
Corwil, LLC, Beaumont, TX
Dorothy Mae Joubert, Beaumont, TX
Dubea Investments Wildhorse, LP, Beaumont, TX
E.G. Cordts, Jr., Beaumont, TX
Ed Crawford, Beaumont, TX
Edwin Arnaud, Inc., Beaumont, TX
Entergy Gulf States Texas, Beaumont, TX
Gan McFaddin, Beaumont, TX
Golden Eagle Financial Group, Inc., Beaumont, TX
Hebert Family, Beaumont, TX
J.E. Broussard, Jr., Beaumont, TX
James H. Sterling, Beaumont, TX
Jerry Crawford, Beaumont, TX
Kimberly Ann Chica, Beaumont, TX
Kristen Lynn Patterson, Beaumont, TX
L.M. Hebert, III Life Estate, Beaumont, TX
Linda Leslie Veuleman, Beaumont, TX
Louis M Hebert, Beaumont, TX
Margaret Alma Benckenstein, Beaumont, TX
Marie Summerlin Hester, Beaumont, TX
Mark Hawthorne, Beaumont, TX
Martin R. and Stephen Hebert, Beaumont, TX
Mary Jock Hebert, Beaumont, TX
Nancy Cowart, Beaumont, TX
Natgasoline LLC, Beaumont, TX
Nelson-Umphrey Real Estate, LLC, Beaumont, TX
Ora Lee Cassimere, Beaumont, TX
Ransom W. Jones, Jr., Beaumont, TX
Rhinoceros Ventures Group, Inc., Beaumont, TX
Rhonda Kay Richter, Beaumont, TX
Rocklon, LLC, Beaumont, TX
Andree H Macaluso, Bedford, TX
Robert F Houssier, Bedford, TX
Albin J & Michelle Judice, Bridge City, TX
Larry J & Louellen Judice, Bridge City, TX
Marie Louise Antoinette Doiron Estate, Bridge City, TX
Paul M & Debbie Roy, Bridge City, TX
Shirlie Ann Johnson, Brookshire, TX
Wiley Eaves Wieson c/o Fred W. Wieson, Brownsboro, TX
Ernestine Vincent Estate, Burkeville, TX
Lucas William Terrell, Call, TX
Ewing Louisiana Properties LLC, Casper, TX
Witchita Partnership Ltd, Chappel Hill, TX
Randy L. Gardner, Chester, TX
Blair Madylon, College Station, TX
Daniel Joseph Goodman, Jr, Conroe, TX
Jackie Lynn Benoit, Conroe, TX
Melviney Garcia, Crosby, TX
Johns S Brown Louisiana Trust, Cuervo, TX
Propylene Pipeline Partnership, LP, Cypress, TX
Abraham Davis, Dallas, TX
Julie L. Warner, Dallas, TX
Julie L. Warner Clancy, Dallas, TX
Sigrid Rothchild, Dallas, TX
Steven Craig Fowler, Dallas, TX
Thomas J. Howell, Dallas, TX
W.L. and M.A. Cain Family Limited Partnership, Dallas, TX
Thomas Milton Bergstedt, Deer Park, TX
Tim Tindell, Crown Pine Timber 4 LP, Diboll, TX
Betty Mercer, Edna, TX
South Texas Land Limited Partnership, El Campo, TX
L. H. Kinard Sr., El Paso, TX
The Linda Trahan Revocable Trust, Euless, TX
Carla Gail Leslie Wall, Forney, TX
Michele G. Smith, Brite Divinity School, Fort Worth, TX
Rinae Fowler Morrow, Fort Worth, TX
Ronald Terrell, Fort Worth, TX
Lucy Eaves, Fred, TX
Bartlett Doe Moore Jr, Galveston, TX
Kathy Thomas, Galveston, TX
Judie Patterson & The Butch & Linda Smith Family Trust, Georgetown, TX
Melissa Ann Macaluso, Georgetown, TX
The Allar Company, Graham, TX
Shirley Spruiell, Grand Prairie, TX
Captain Charles Lahaye, President, Sabine Pilots, Groves, TX
Ellen Warner, Captain, Sabine Pilots, Groves, TX
Nonie Devillier, Groves, TX
Monte Krebs Crawford, Hampshire, TX
Anthony Albert Macaluso Jr, Houston, TX
Arthur Hollins III, Houston, TX
B.P. American Production Co., Houston, TX
Ben W. Curry c/o Susan Curry Swift, Houston, TX
Burlington Resources Oil & Gas Co LP, Houston, TX
Byng Hall Corporation, Houston, TX
Charles R Houssiere III, Houston, TX
Citgo Petroleum Corporation, Houston, TX
CM Mid-County Properties, LLC, Houston, TX
Dawn I Herrington, Houston, TX

Appendix A

Distribution List

Donald Jock Hinrichs, Houston, TX
Douglas Pedigo, Houston, TX
Dustan Thomas Gawthorp, Houston, TX
Elroy Lovejoy, Houston, TX
Enterprise Refined Products CO., LLC, Houston, TX
Erma Nadean Bludworth Trust, Houston, TX
Ernest Morehead, Houston, TX
Eve Norman Garbarino Jr, Houston, TX
FLB/CBB Family Limited Partnership, Et al, Houston, TX
Gloria Mae Hubbert, Houston, TX
Gloria Sheffield Hubbard, Houston, TX
Golden Pass LNG Terminal, LP, Houston, TX
Golden Triangle Properties, Houston, TX
H D Cox Estate, Houston, TX
H.B. Joiner LLC, Houston, TX
Harold Moore, Houston, TX
Hilton Winfrey & Nancy Winfrey Williams, Houston, TX
James Thaddeus Mcclellan, Houston, TX
Janet Jeanes, Houston, TX
Jennifer Dunn Blanc, Houston, TX
Jim Thompson, Manager-Permitting and Compliance, Sempra LNG, Houston, TX
Kenneth E. Dubose, Houston, TX
Kenneth Michael Karam, Houston, TX
Kinder Morgan Texas Pipeline, Houston, TX
Landon Lyles, Houston, TX
Larry J & Louellen Mcclellan, Houston, TX
Lesa A. Lagrone, Houston, TX
Linda Parry M George, Houston, TX
Maybell Baker Chandler, Houston, TX
MBLH Properties Ltd, Houston, TX
Michael Albert Macaluso, Houston, TX
Michael W. Robbins, Senior Project Manager, TRC Solutions, Houston, TX
Mobil Pipe Line Company, Houston, TX
Molly Bennett Brown, Houston, TX
Molly Jane P Fink, Houston, TX
Nancy W. Williams, Houston, TX
Oiltanking Beaumont Partnership, Houston, TX
Rickie Abbs, Houston, TX
Robert Jackson, Houston, TX
Robert Winfrey, Houston, TX
Sabine Pass Liquefaction, LLC, Houston, TX
Samuel A Mcclellan, Houston, TX
Tawana Gail Robinson, Houston, TX
Teneda Middleton, Houston, TX
Texas Eastern Transmission, Houston, TX
Texas Eastern Transmission Corporation, Houston, TX
Vivian Ledet, Houston, TX
William L Welch Et al, Houston, TX
ADJ Partnership, LTD, Jasper, TX
Jasper County Real Estate, LLC, Jasper, TX
McGraw Minerals, LTD, Jasper, TX
Pamela Gale Johnson, Katy, TX
Roy H Donaldson Jr, Kerrville, TX
Ruben S. Martin III, Martin Operating Partnership, Kilgore, TX
Jose Villarreal, Lafkin, TX
Carolyn Leveque, Lago Vista, TX
J C Tracy Estate, Lake Jackson, TX
The Herman E. and/or Era M. Mcfatter Revocable Living Trust, Lake Jackson, TX
Mary Elizabeth G. Farley, Lampass, TX
Edgar Brown Land Company LLC, League City, TX
Louie E. Robinson, III, and Travis Mark Robinson, League City, TX
W.T. Robinson, Liberty, TX
Craig Williams, Livingston, TX
Delores A Williams, Livingston, TX
Nathan Smith, Livingston, TX
Norman Williams, Livingston, TX
Peggy Williams, Livingston, TX
Peggy Williams, Livingston, TX
Rebecca Alec, Livingston, TX
Rebecca W. Alec, Livingston, TX
Rodney Williams, Livingston, TX
Sandra W. Walker, Livingston, TX
Shana Smith, Livingston, TX
Verlis Williams, Livingston, TX
Becky McKinley, Lufkin, TX
Kimberly Anne Benckenstein Webster, Lufkin, TX
Larry D. Williams, Lufkin, TX
Wynema Kay Robinson, Lufkin, TX
Corbin Willianson, Magnolia, TX
Joseph L. Hantz, Magnolia, TX
Paula Louise Hebert, Magnolia, TX
Charlene Williams Wall, Mauriceville, TX
John Dudley and Lorri and Patti Baker, Mauriceville, TX
Mega Chips, Inc., Mauriceville, TX
Robert White, Jr., Medina, TX
Robin Fowler Taylor, Mesquite, TX
Michael Ballare, Missouri City, TX
Karen Lucas Trust, Montgomery, TX
Richard E. Wallace, Montgomery, TX
Barry Barnette, Nederland, TX
C. Doornbos A&B, LP, Nederland, TX
Gary W. Collins, Nederland, TX
Labelle Properties, LLC, Nederland, TX
Wilmer Young, Nederland, TX
Billy Walter & Era Jane Odom, Orange, TX
Brenda J. Lawson, Orange, TX
Clint Jones, Orange, TX
Davis C. Dixon, Orange, TX
Dorothy Henry, Orange, TX
Dudley Scott Rollins, Orange, TX
Earma Garn, Orange, TX
Ivan Valle Divila, Orange, TX

Appendix A

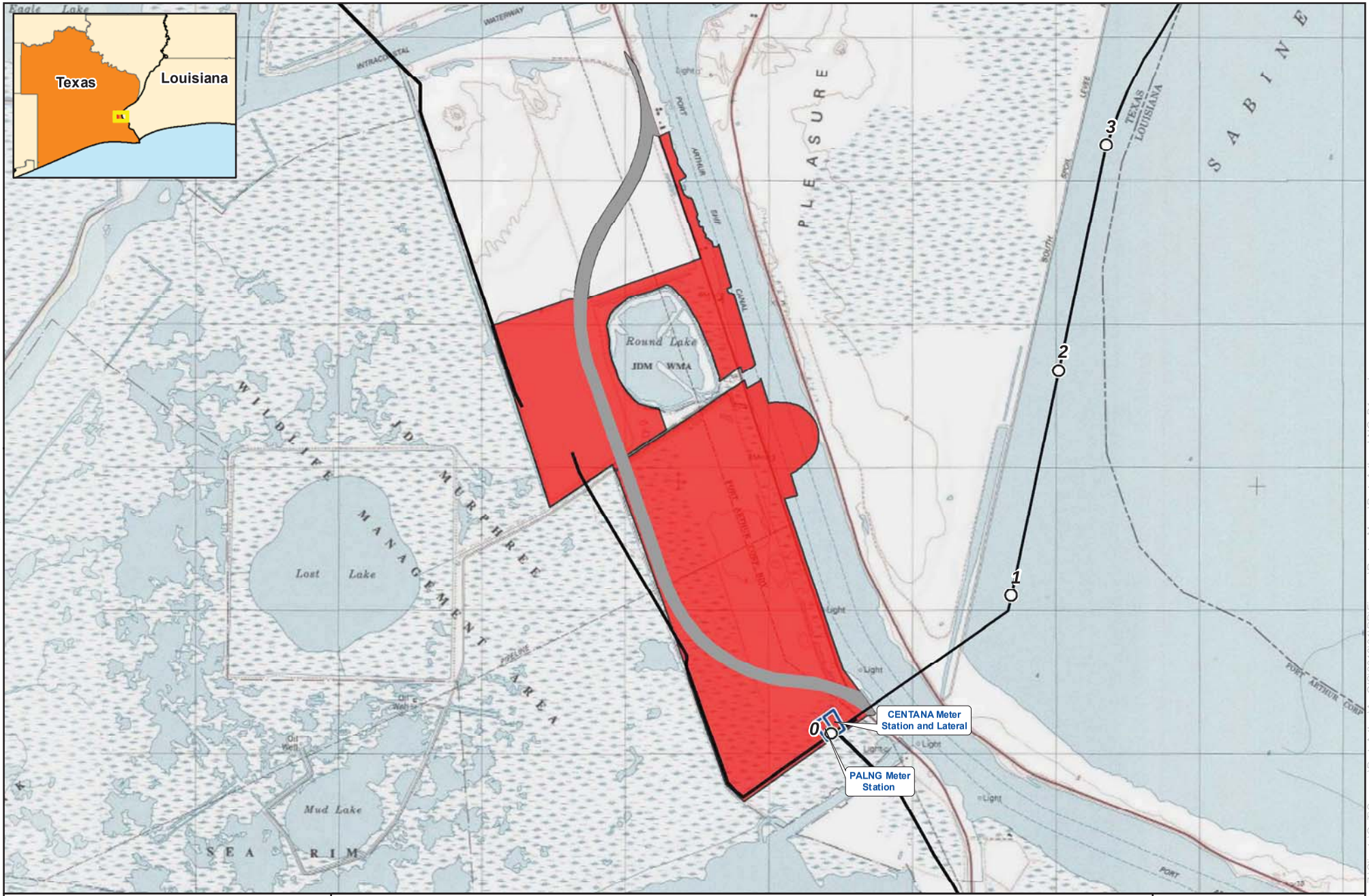
Distribution List

J H Spector & Sons, Orange, TX
J.A. Foster, Orange, TX
James A. Stelly & Billie Rae Stelly Revocable Living Trust, Orange, TX
Jeremy A. & Tabitha G. Tynes, Orange, TX
Jerry J. & Donna J. Harris, Orange, TX
Jimmie Simmons, Orange, TX
Joe Bob Sorter, Orange, TX
Joshua Samms, Orange, TX
Kudu Limited II, Inc., Orange, TX
Leir Rollins (Attn: Betty Rollins), Orange, TX
Morgan D. Michael, Orange, TX
Phillip & Terri Kennedy, Orange, TX
Susan Steed, Orange, TX
W E Mccorquodale Sr, Orange, TX
Wood P. Meanrd, Orange, TX
William Edward Winfree, Orangefield, TX
Sherluff Lee Leslie, Pasadena, TX
Joe Van Duhon, Pearland, TX
Don Michael Johnston, Pipe Creek, TX
Carolyn Akers Eastham, Plano, TX
Donna E. Cormier, Plano, TX
Margaret Helen Ratliff Reamer, Plano, TX
Mary Carolyn Eastham, Plano, TX
Cecil J. Broussard, Port Arthur, TX
City of Port Arthur, Port Arthur, TX
Connie S. Broussard, Port Arthur, TX
Gulf Copper & Manufacturing, Port Arthur, TX
Hemmenway Family, LP, Port Arthur, TX
Jack Hemmingway, Port Arthur, TX
Jefferson Co Drainage Dist 7, Port Arthur, TX
Narasimha Reddy Chandamuri, Port Arthur, TX
Richard Lavallee, Port Arthur, TX
Linda Montgomery, Port Neches, TX
Myrna Summerlin Connelly, Port Neches, TX
R.L. Breaux, Jr., Port Neches, TX
Susan Chevis Arceneaux, Port Neches, TX
Willard Young, Port Neches, TX
Sandra Fowler Alexander, Quinlan, TX
The Flying F LLC, Rockport, TX
Kenneth Charles Macaluso, Round Rock, TX
Kristi Heid, Superintendent, Sabine Pass ISD, Sabine Pass, TX
Andrew J. Lewis, Jr. or Linda L. McSween, San Antonio, TX
Cala M. Hunter, San Antonio, TX
Carol Kyle Tyrrell Real Estate Partnership, San Antonio, TX
Donald White, San Antonio, TX
Jeanne M. Conner and Mary Lynn Ryder, San Antonio, TX
John Matthews, San Antonio, TX
Pat W. McNamara, Jr., San Antonio, TX
The Pemcor Refining Group, Inc., San Antonio, TX
Bettie Sue Cowan c/o Peter S. Sloan, San Saba, TX
David W & Laura Blacksher, Santa Fe, TX
Kyle Consolidated Group, LP, Seguin, TX
OCF Properties, Ltd., Seguin, TX
Debra Jenean Leslie Castle, Sherman, TX
Bruce S., Meredith H., Susan E., & Dosite S. II Perkins, Spring, TX
Charles J. Hebert, Spring, TX
Fann Family Living Trust, Spring, TX
Houston Baptist University, c/o Dudley Veal Property Tax Group, Spring, TX
John L. Hebert, Spring, TX
Judy Waldo, Spring, TX
Leonard Benckenstein, Spring, TX
Marjorie W Fann Et al, Spring, TX
Richard Keith Hebert, Spring, TX
Rogers U. Karr, Spring, TX
Stanley P. Benckenstein, II, As Trustee of The Kimberly Anne Benckenstein Webster Heritage Trust, Spring, TX
Stanley P. Benckenstein, II, As Trustee of The Shannon Elaine Benckenstein Baker Heritage Trust, Spring, TX
Steven Couch Benckenstein, Spring, TX
Vickie A. Anselmi, Spring, TX
CLB Louisiana Properties LLC, Stafford, TX
Calvin Botley, Sugarland, TX
James R Fruge, The Woodlands, TX
Janet Louise Benson, Valley View, TX
A.B. Mansfield, Jr., Vidor, TX
Betty Manning Gall, Vidor, TX
Elmer L Ellender, Vidor, TX
Emma Jean Ellis Lamar, Vidor, TX
Lorraine M. Brodnax, Vidor, TX
Michael Deramus, Vidor, TX
Powell Anderson, Vidor, TX
Mary Henderson, Village Mills, TX
Clayton Todd Rollins, Winnie, TX
Malcolm Lynn Rollins, Winnie, TX
Dewey Conrad Pearson Jr Et al, Woodlands, TX
Charlinda Inc, Woodville, TX
Hebert Abstract Co LLC, Woodville, TX
Judith Hebert Cagle, Woodville, TX
Perkins Beverly Harrell, Woodville, TX
Elaine Elder King Mccarrick, Staunton, VA
Johnson Family Trust, Woodbridge, VA
Donald Mcelwain, Bristol, VT
Helen Botley Gorden, Moss Lake, WA
Caroline Louise Lucas Trust, Renton, WA
Frederick Allen, Et al Cordsen, Seattle, WA
Clifton Louisiana Properties, LLC, Tacoma, WA
Clifton Louisiana Properties, LLC, Tacoma, WA
Karen Gwen Hill Carnes, Vancouver, WA
Sheila D Cernek, Gratiot, WI
Kay Francis Johnson Heard, Cody, WY

APPENDIX B

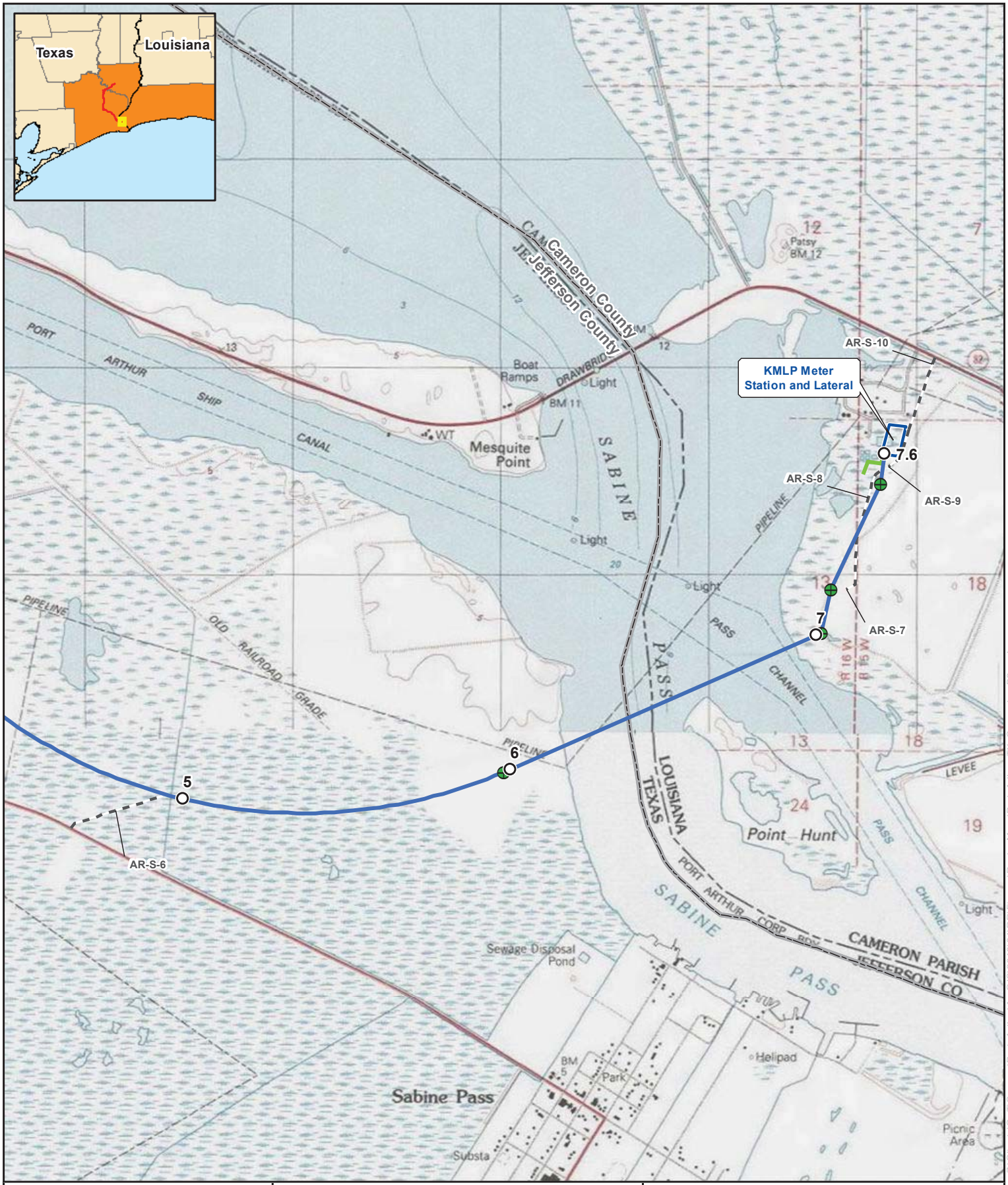
PROJECT MAPS

Liquefaction Project



Appendix B-1
Liquefaction Facility Project
Route Map
Jefferson County, Texas

Texas Connector Project



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Map 1 of 10

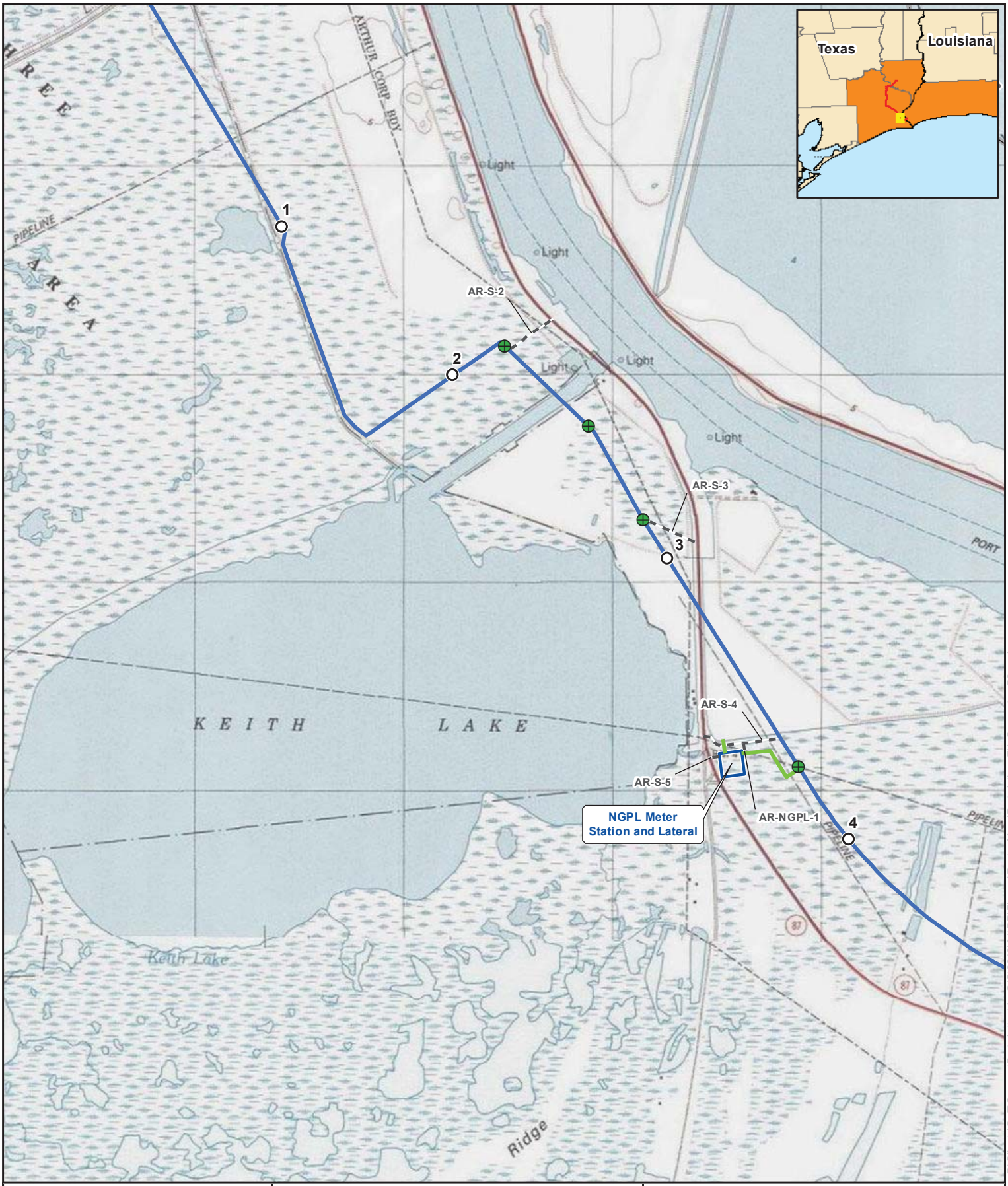
Appendix B-2

Texas Connector Project
Route Map
Cameron Parish, Louisiana and Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\C_1\Sempra\Port_Arthur\ArcGIS\2018\01\RKF\figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

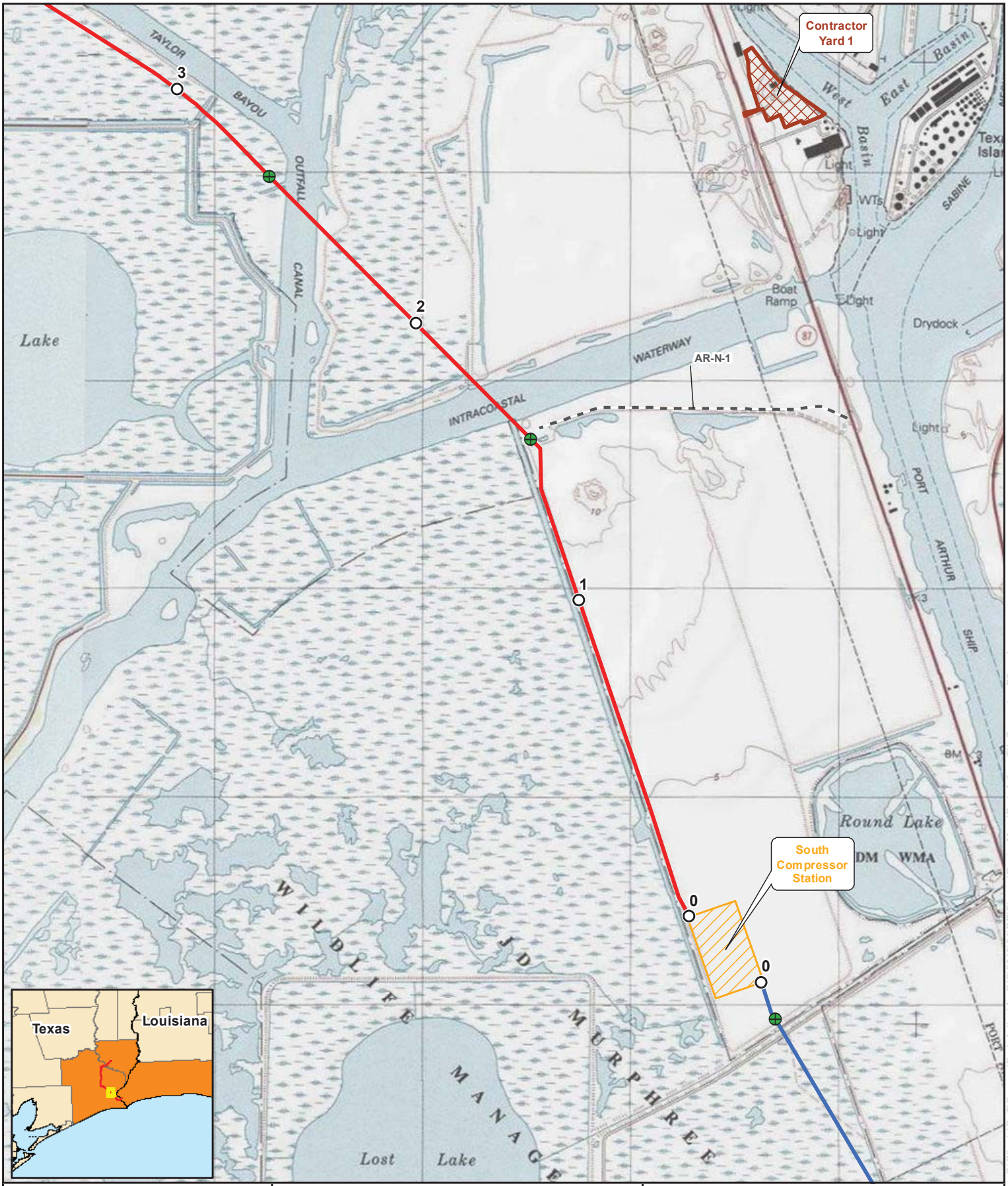
Map 2 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

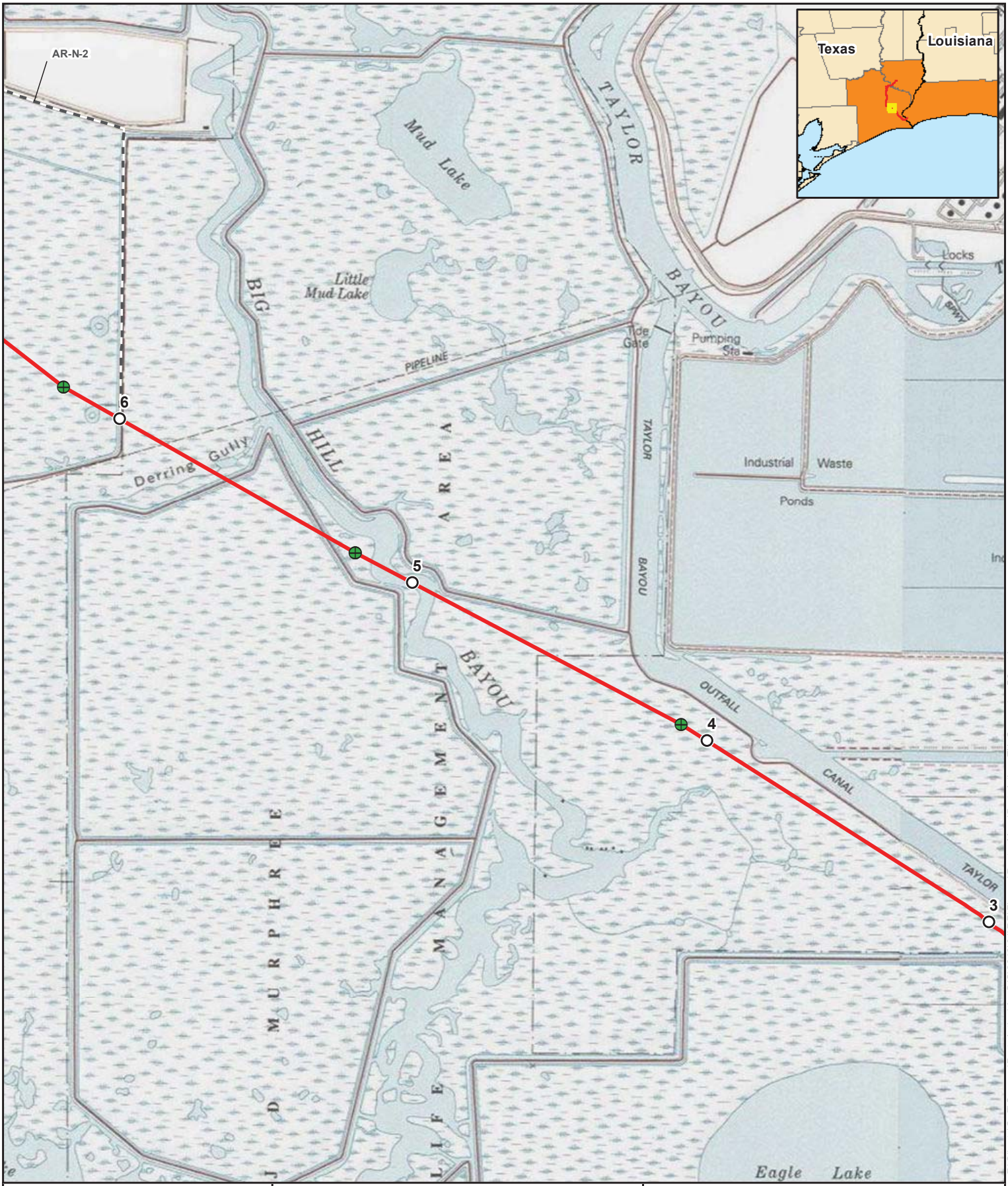
Source: Z:\Clients\CB_TSempraPort_ArthurArcGIS\2016\TRR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (1/15/2016)



Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

Source: Z:\Clients\IG_T\SempraPort_Arthur\ArcGIS\2018\TRR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd
Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

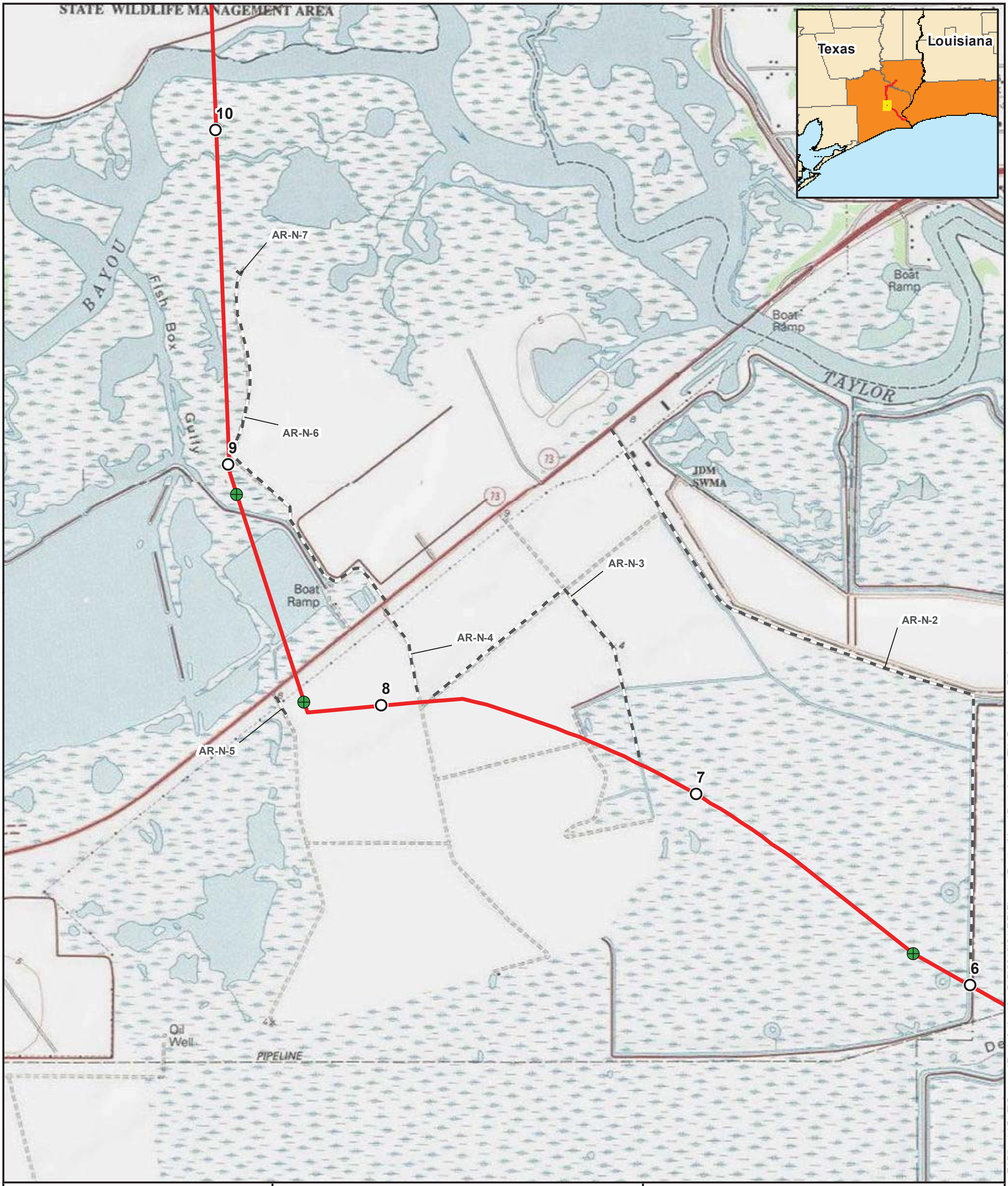
For Environmental Review Purposes Only

Map 4 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\CE_TrSempraPort_Arthur\ArcGIS\2016\TRR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd
Date: (1/15/2016)



0 1,000 2,000 Feet

1 inch = 2,000 feet

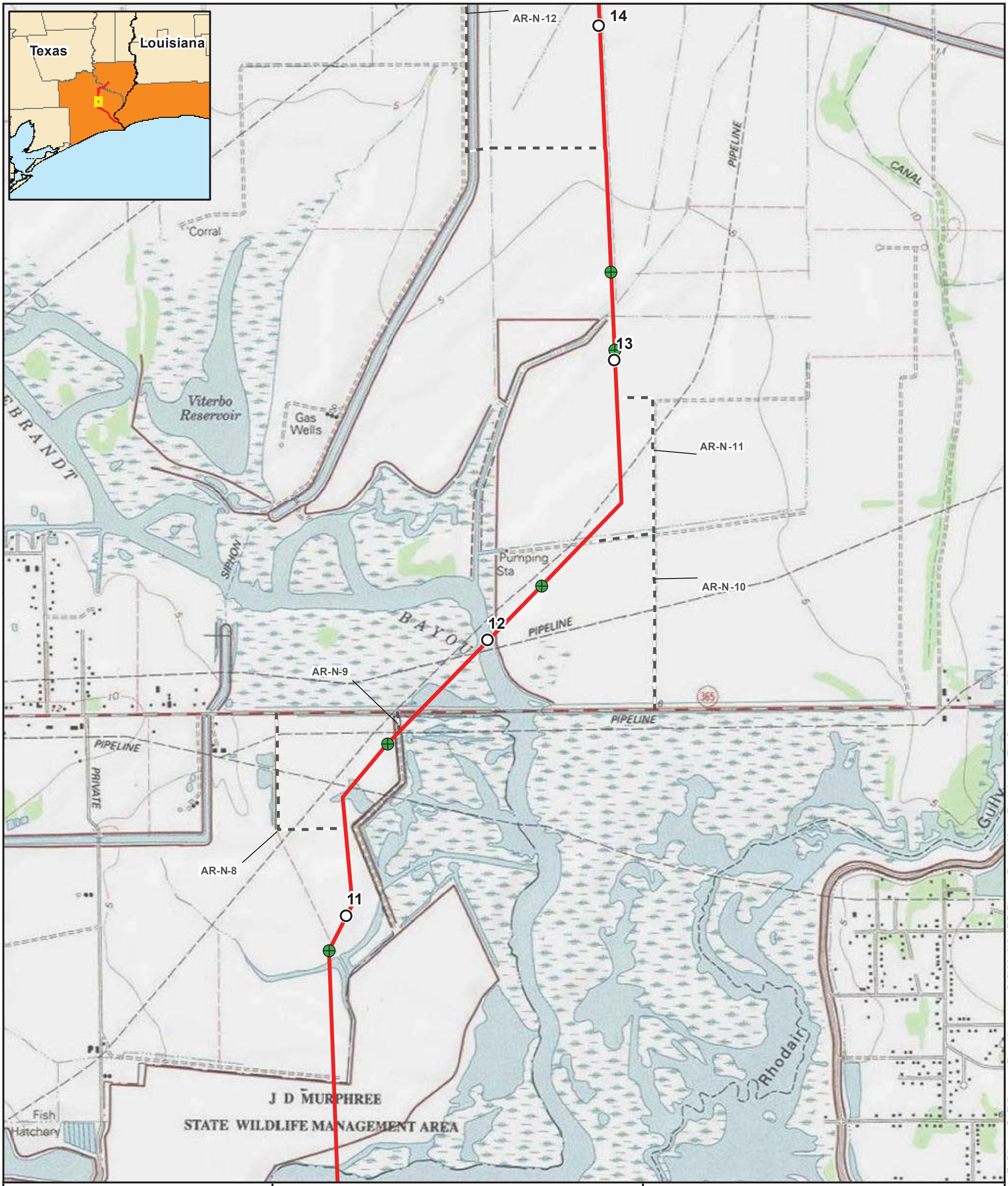
For Environmental Review Purposes Only

Map 5 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd
Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

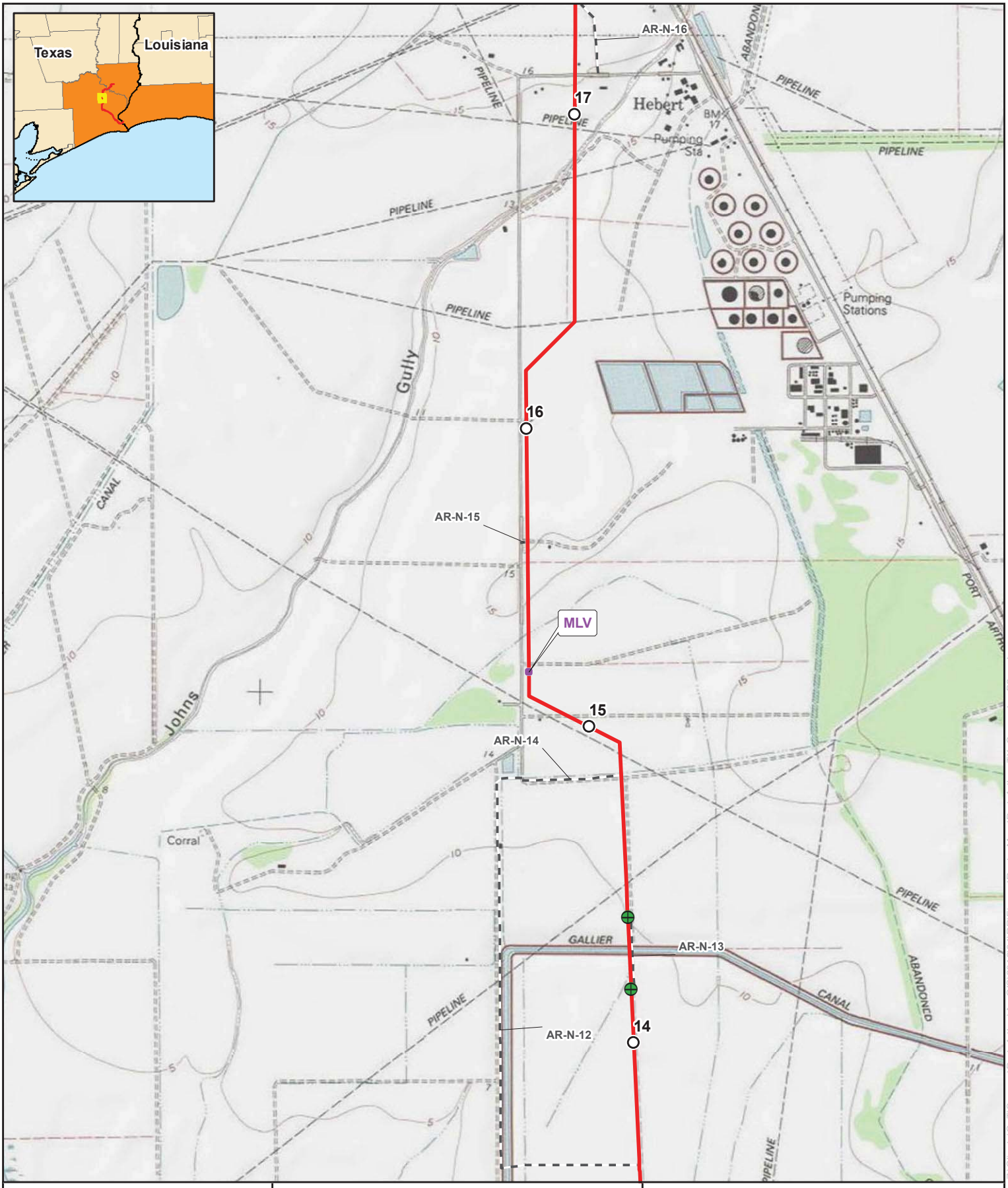
Map 6 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

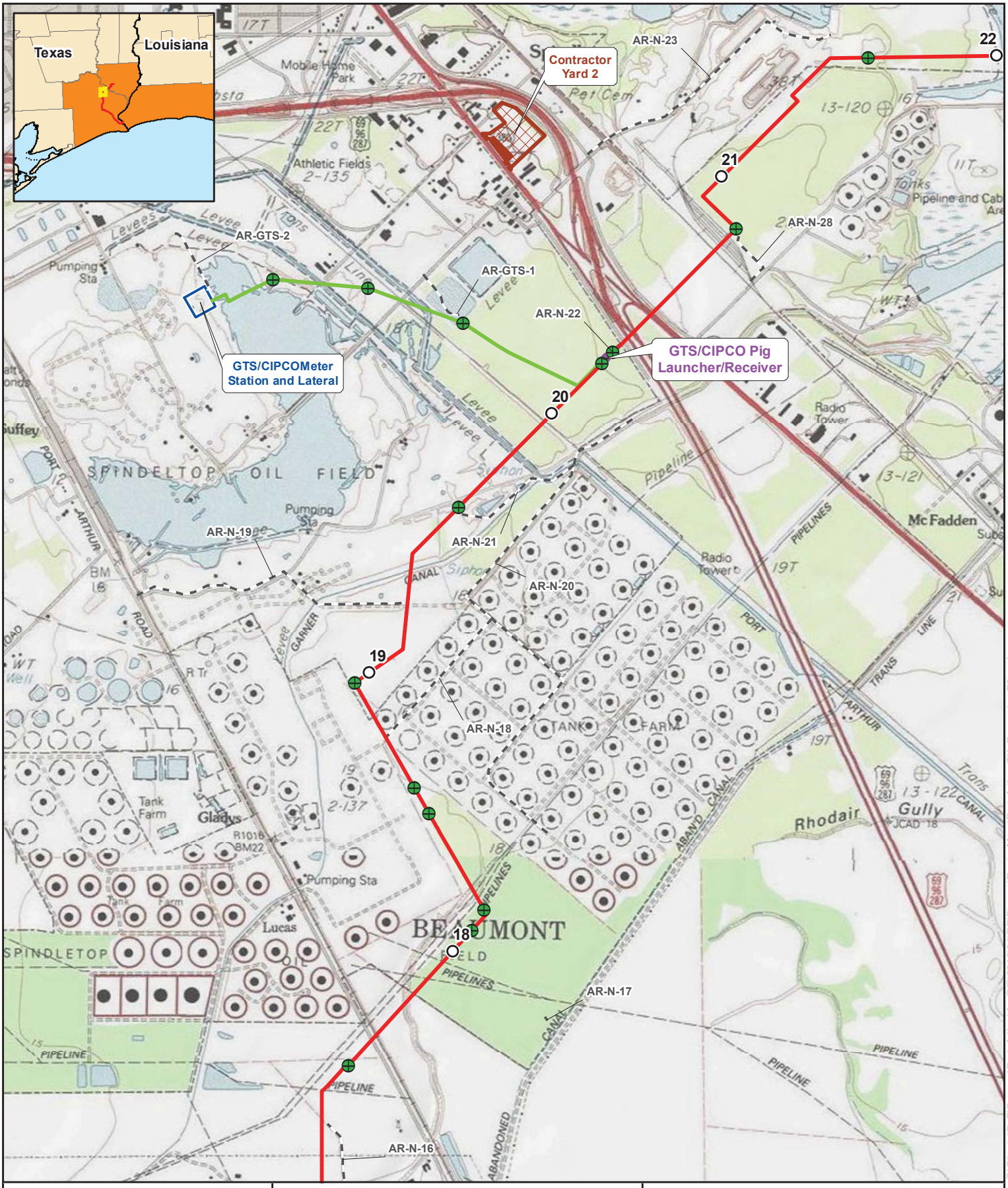
Map 7 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RF\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (2/7/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

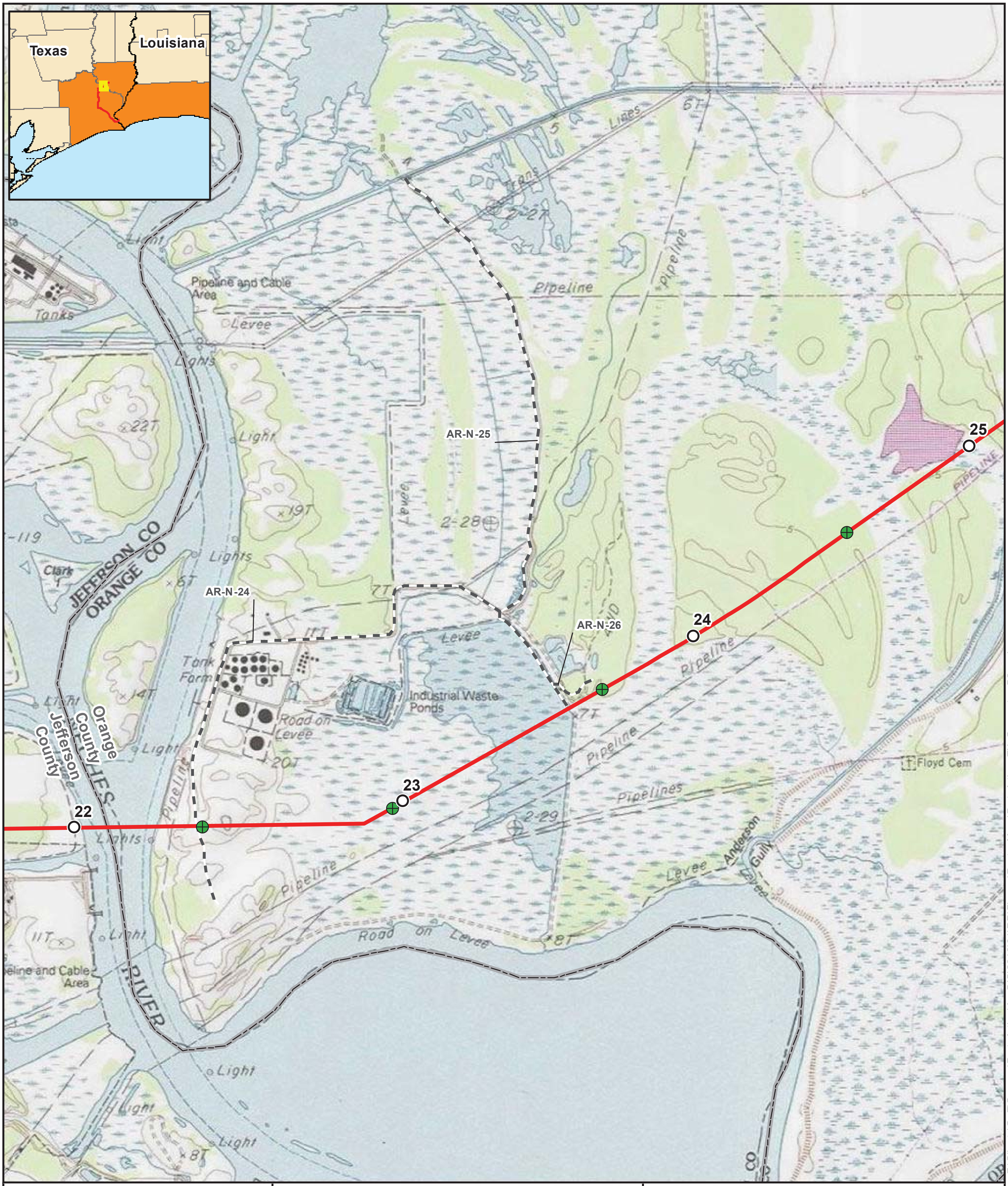
Map 8 of 10

Appendix B-2
Texas Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (2/7/2018)



0 1,000 2,000 Feet

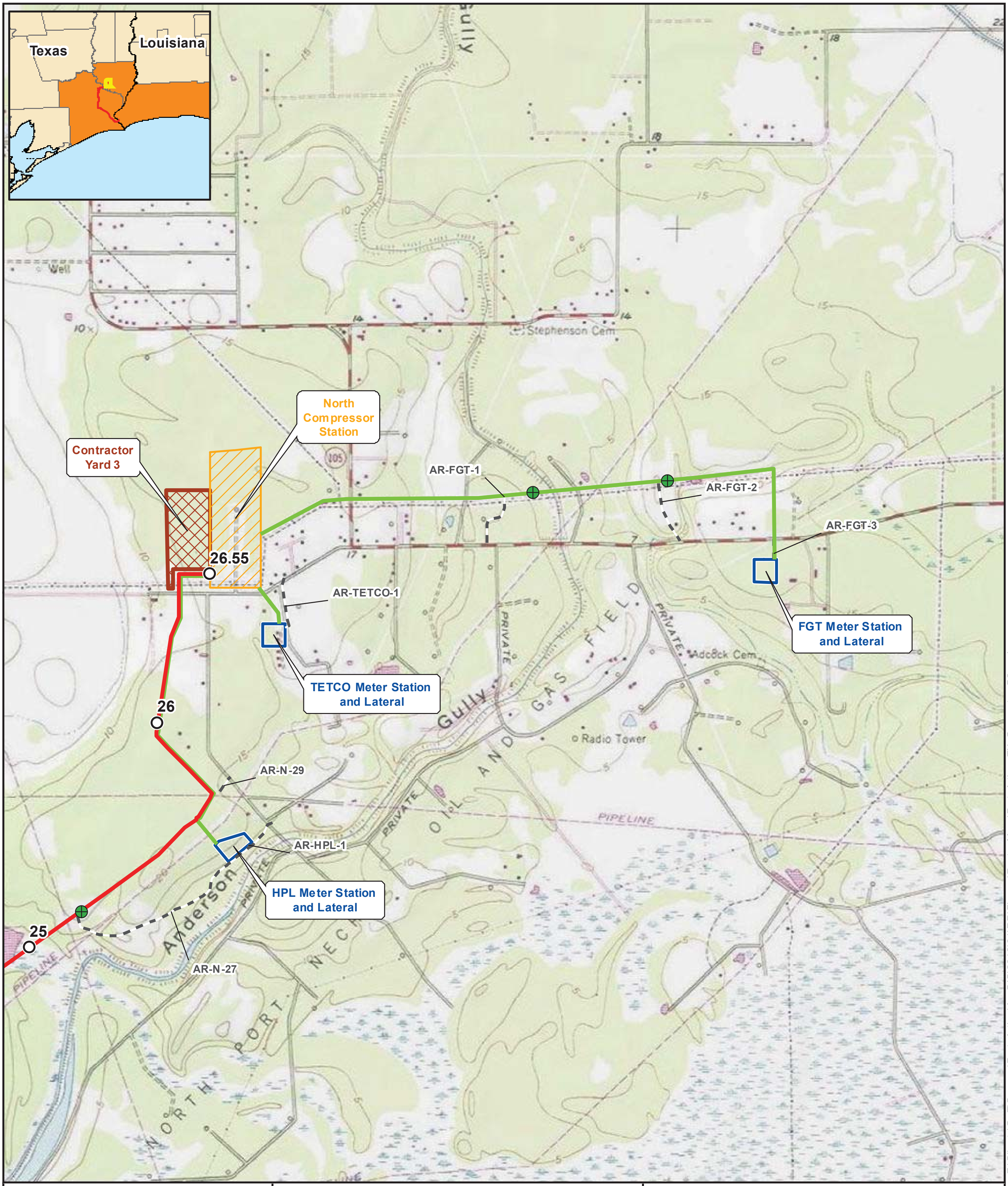
1 inch = 2,000 feet

For Environmental Review Purposes Only

Map 9 of 10

Appendix B-2
Texas Connector Project
Route Map
Orange County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary



0 1,000 2,000 Feet

1 inch = 2,000 feet

N S E W

For Environmental Review Purposes Only

Map 10 of 10

Appendix B-2
Texas Connector Project
Route Map
Orange County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Lateral
- Proposed North Pipeline
- Proposed South Pipeline
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01RR\Figures\Route_Maps\Port_Arthur_TX_Connector_B2.mxd

Date: (1/15/2018)

Louisiana Connector Project

B-3-1

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

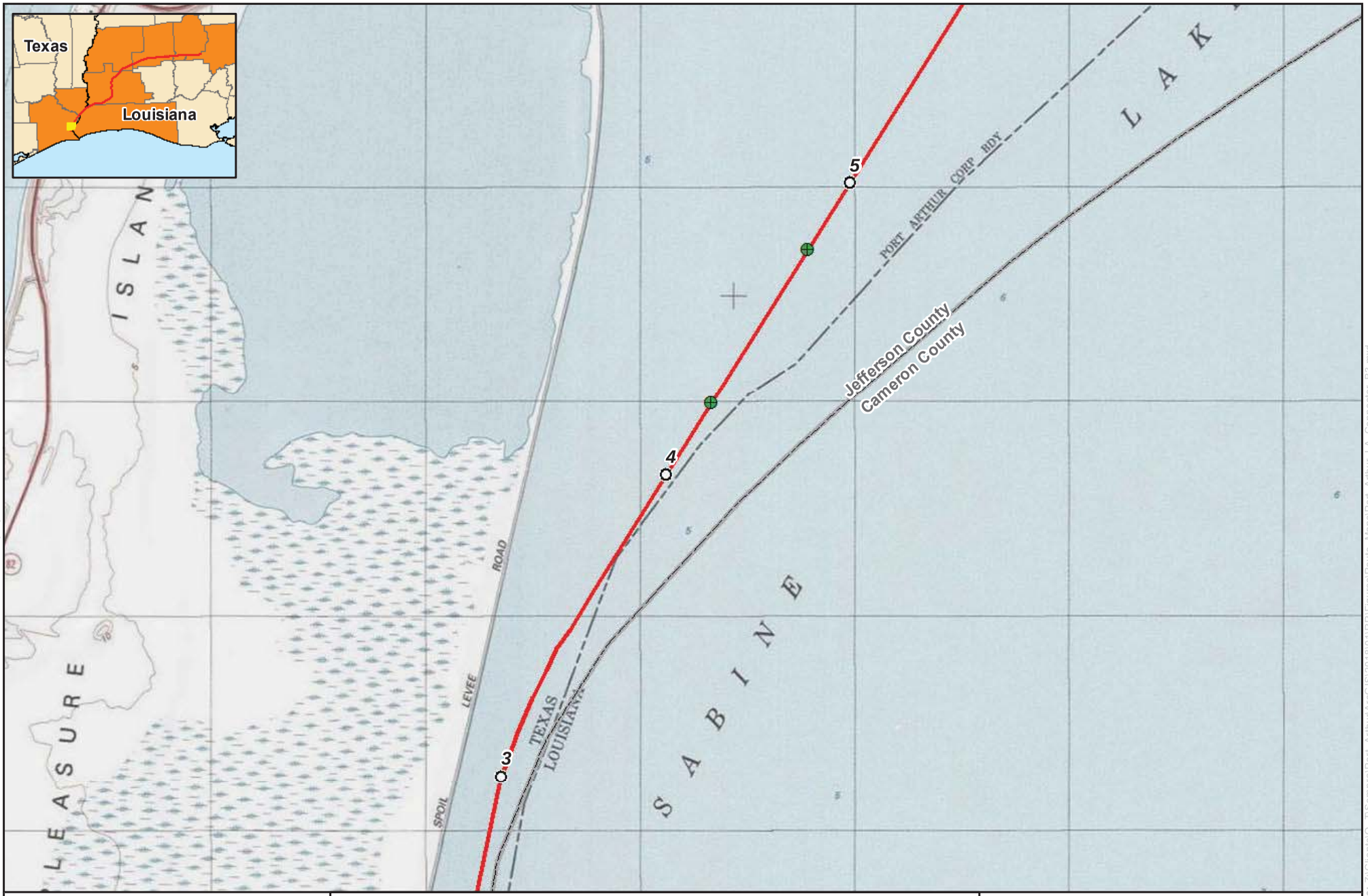
Page 1 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-2

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 2 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TSempra\Port_ArthurArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

B-3-3

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3

Louisiana Connector Project

Route Map

Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

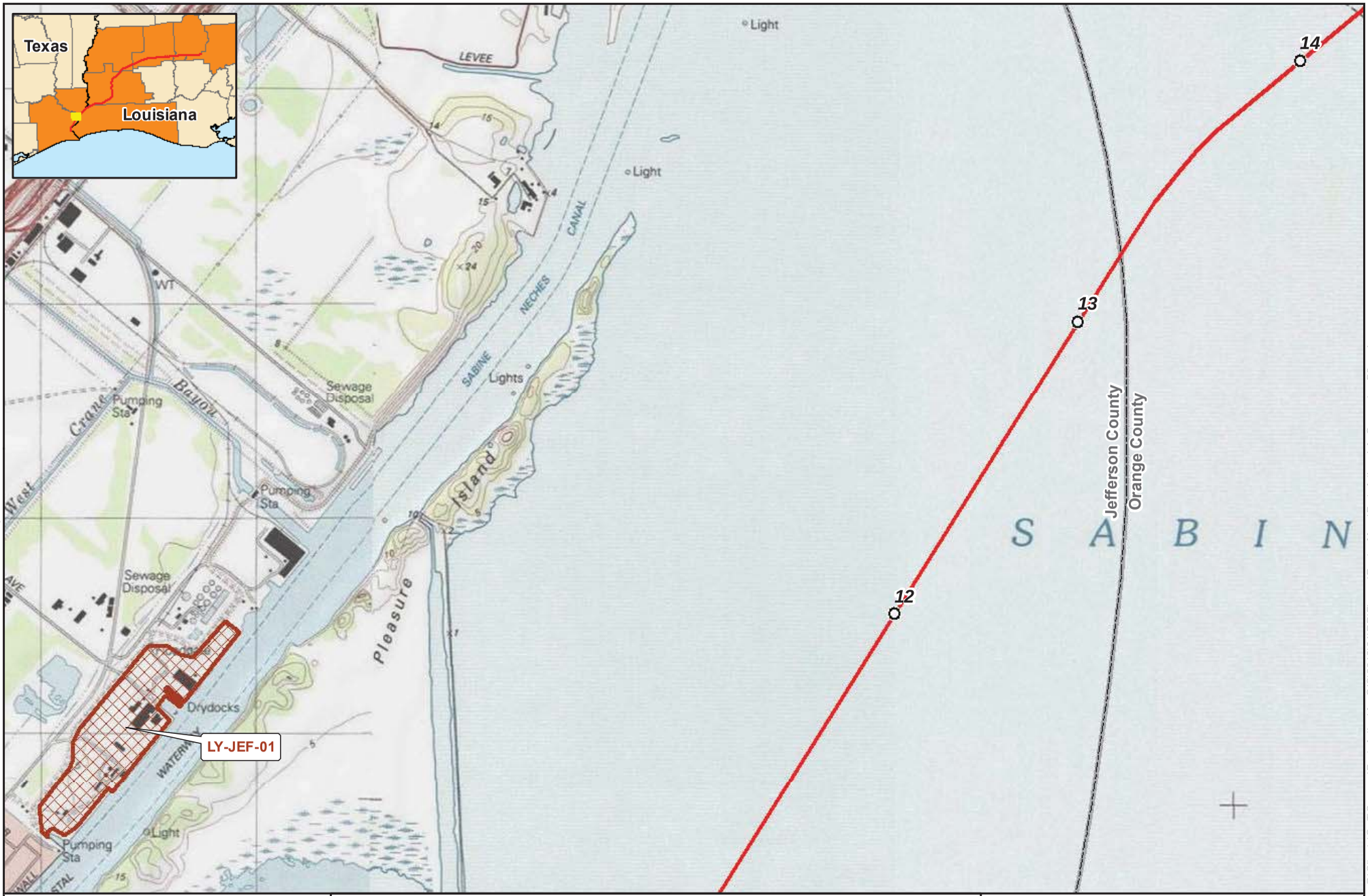
Page 4 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Jefferson County, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-5

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

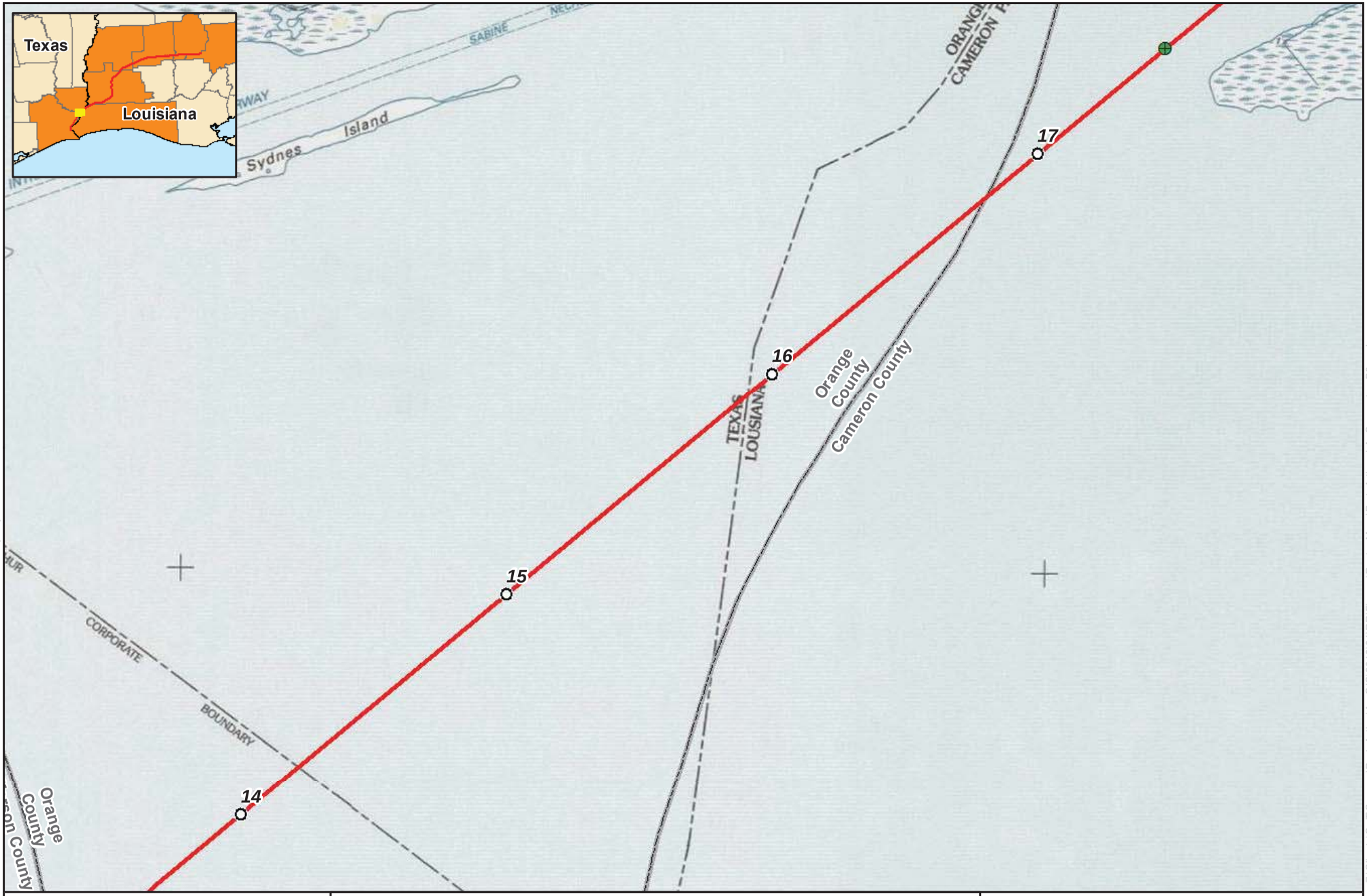
Page 5 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Jefferson and Orange Counties, Texas

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

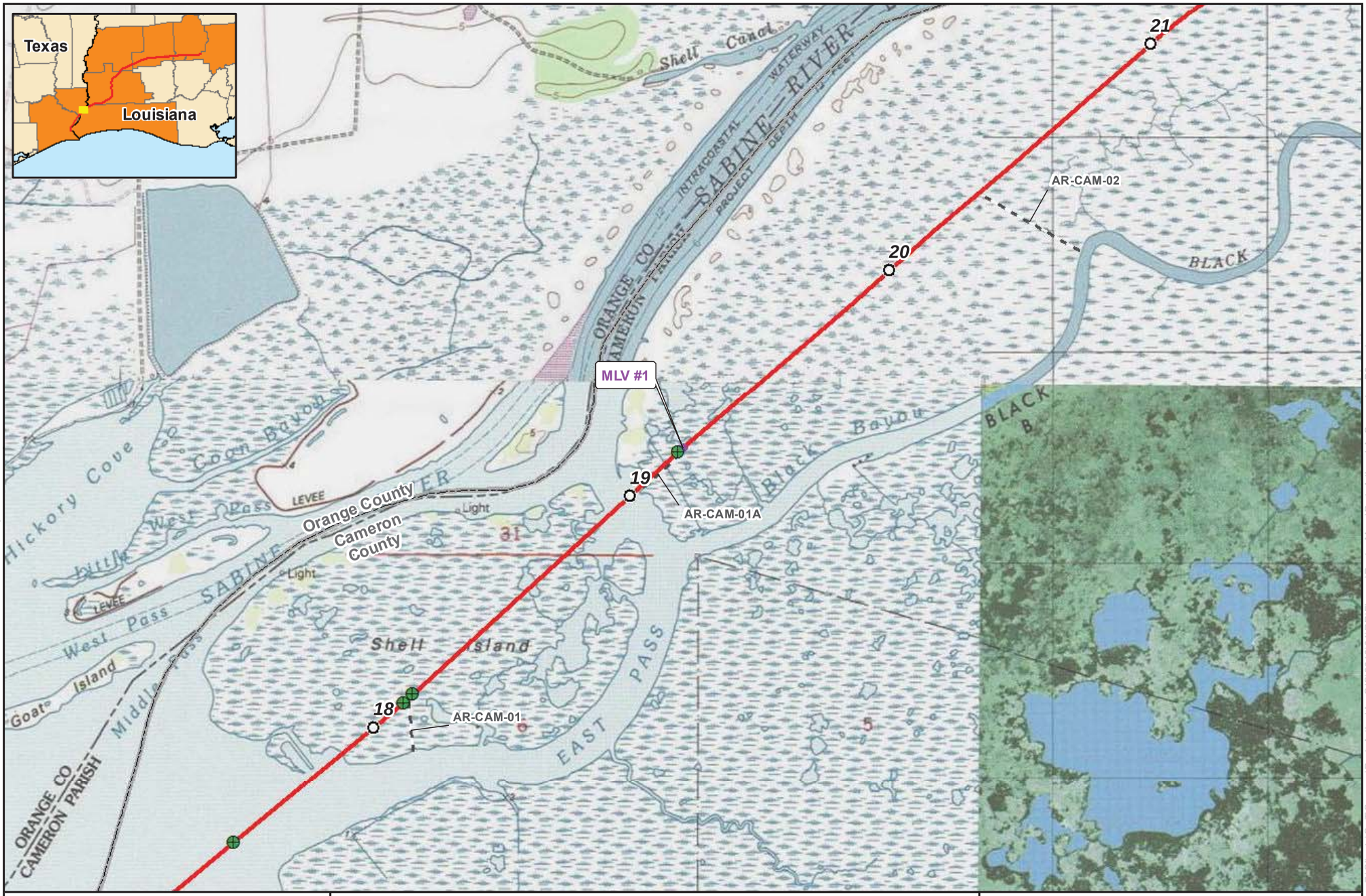


Appendix B-3
Louisiana Connector Project
Route Map
Orange County, Texas

For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-7

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

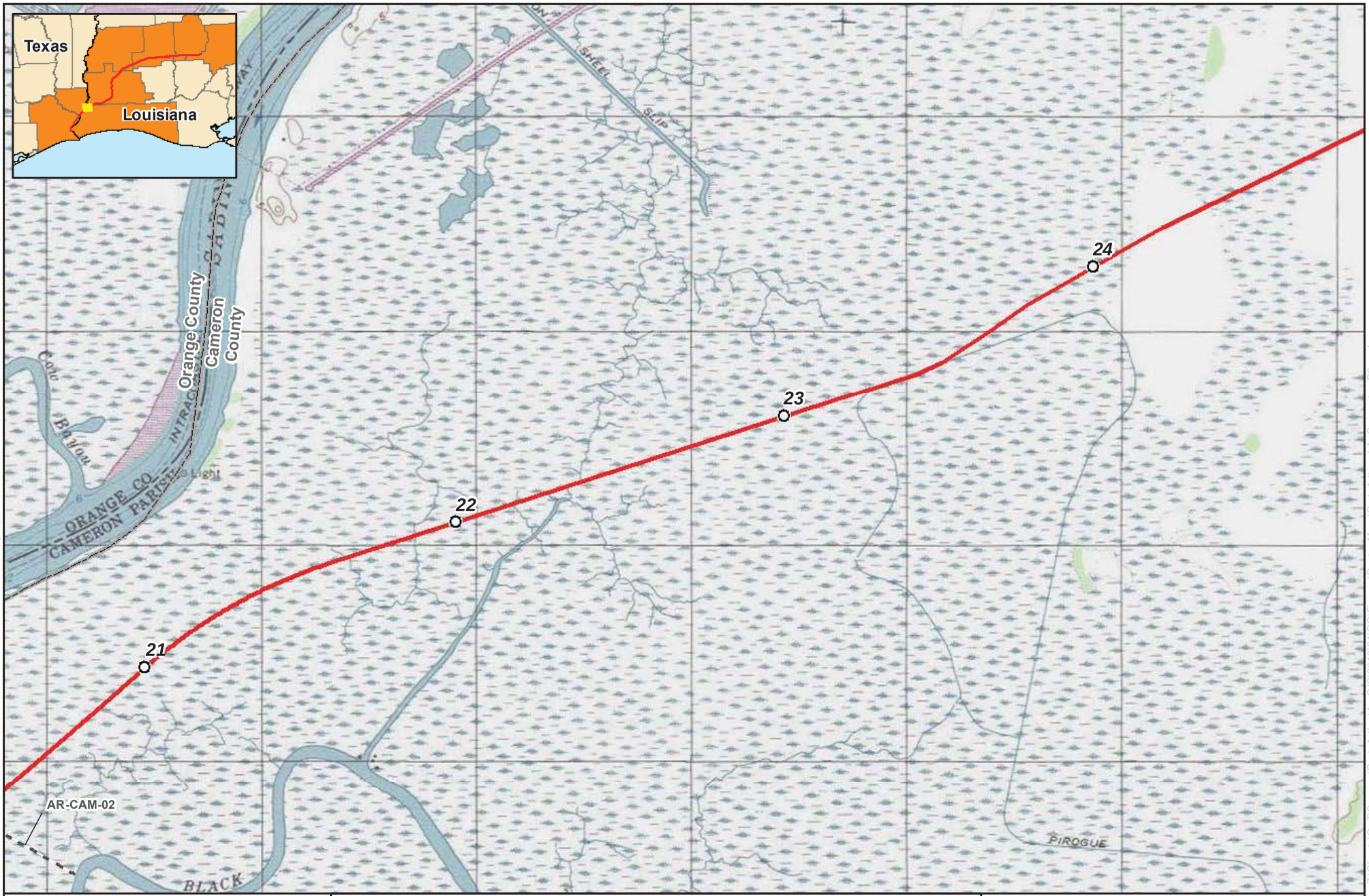
Page 7 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Cameron Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Cameron Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3

Louisiana Connector Project

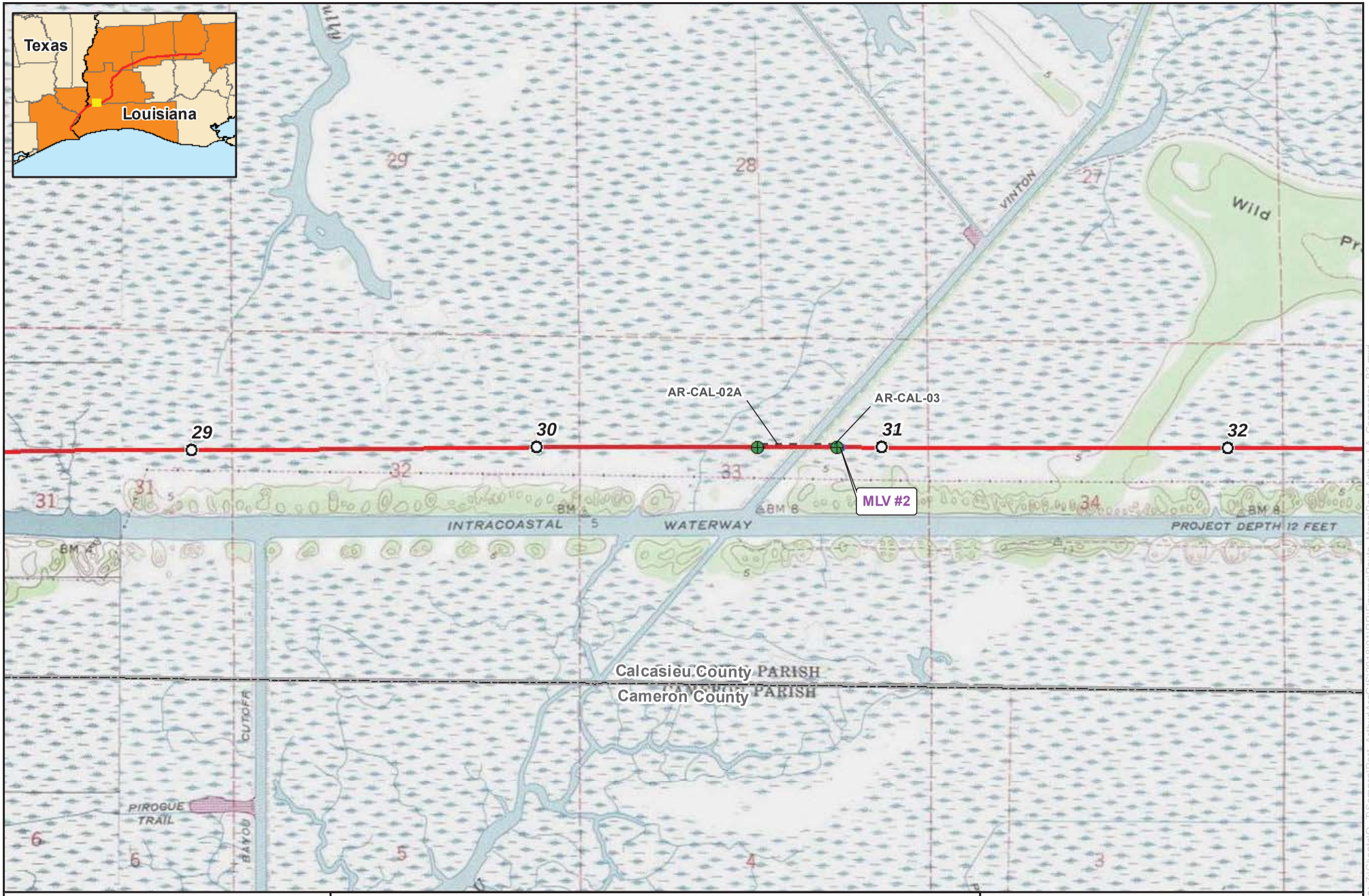
Route Map

Cameron and Calcasieu Parishes, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-10

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3

Louisiana Connector Project

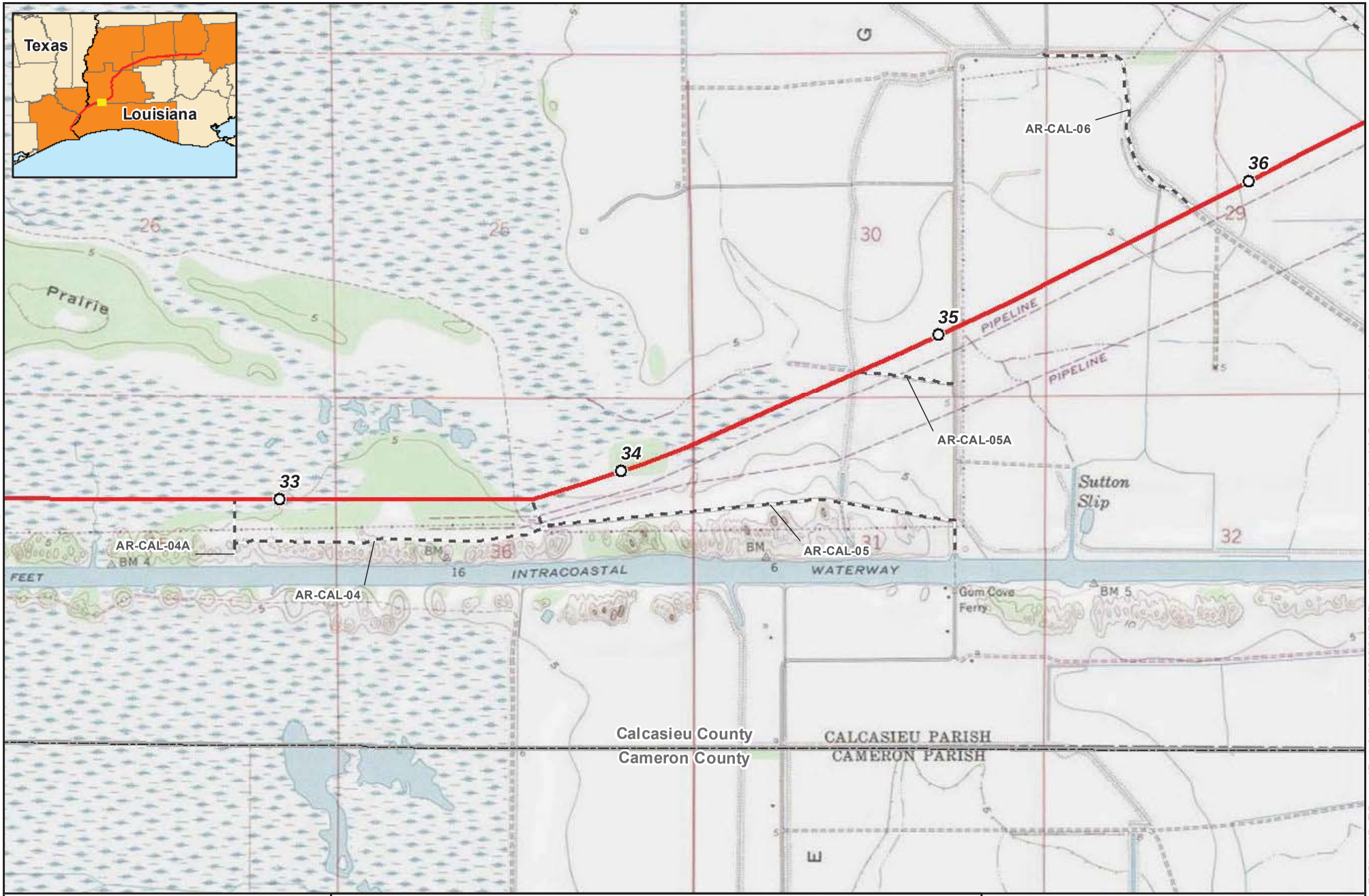
Route Map

Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

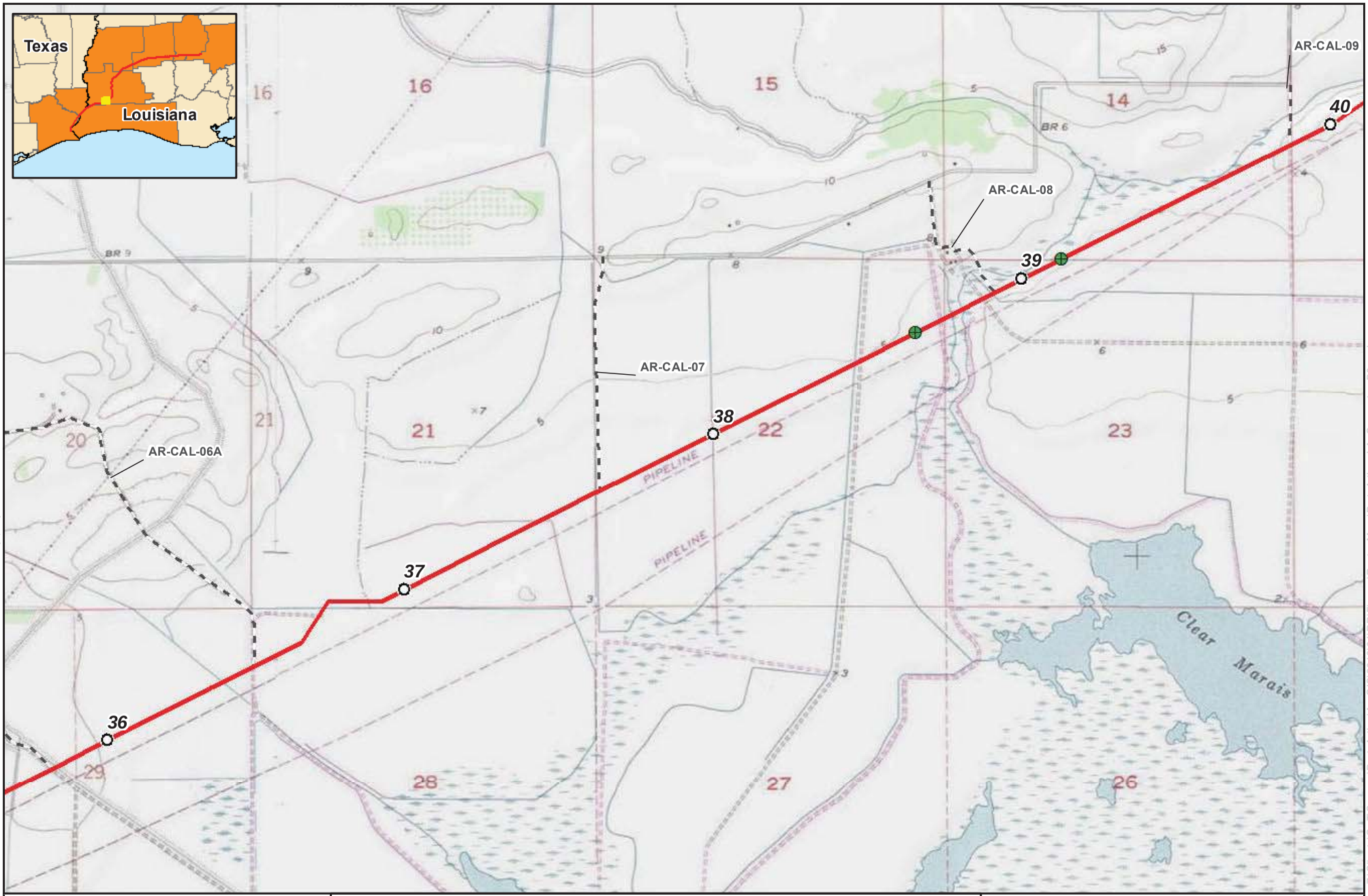
Page 11 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-12

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

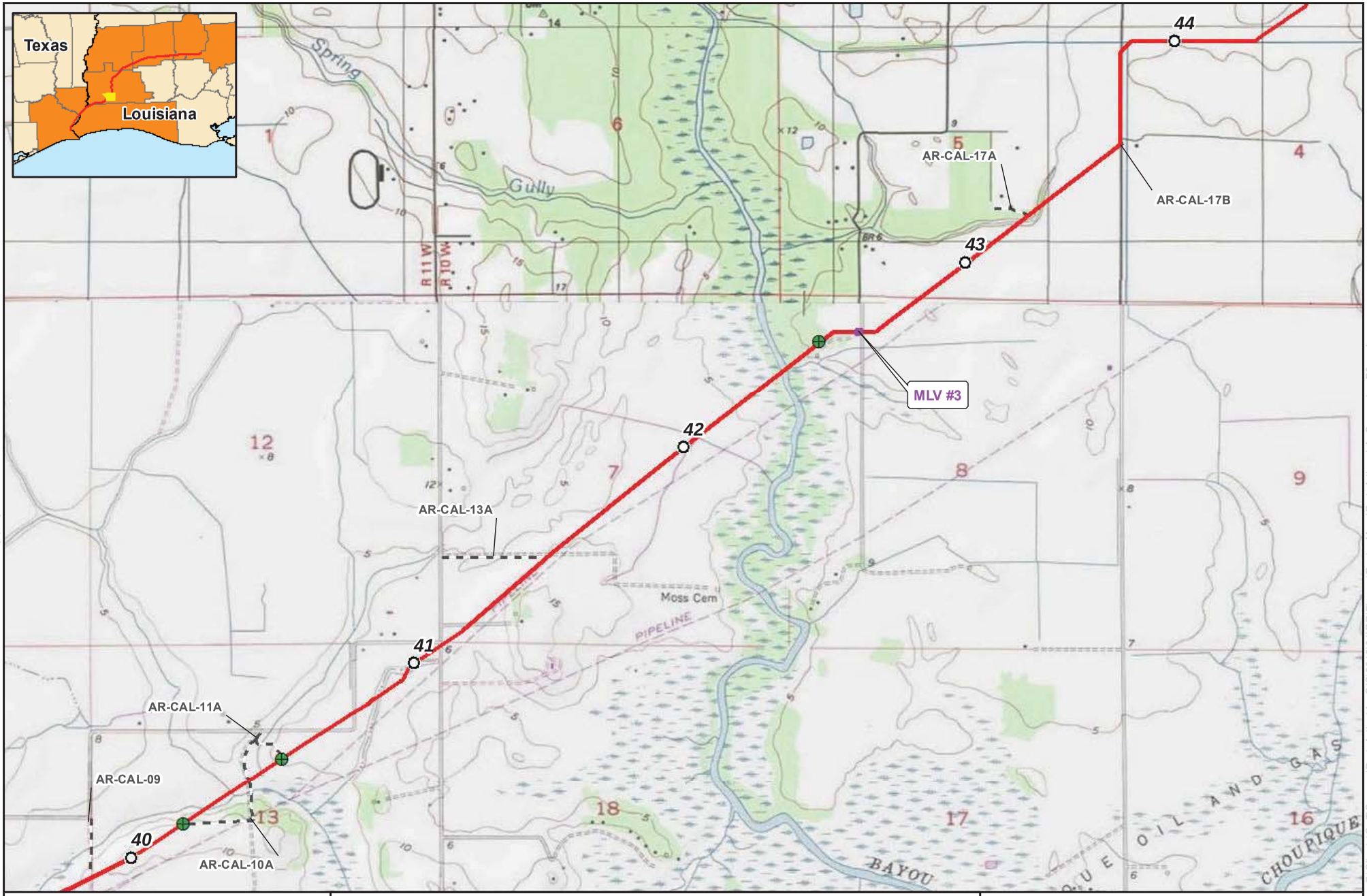
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

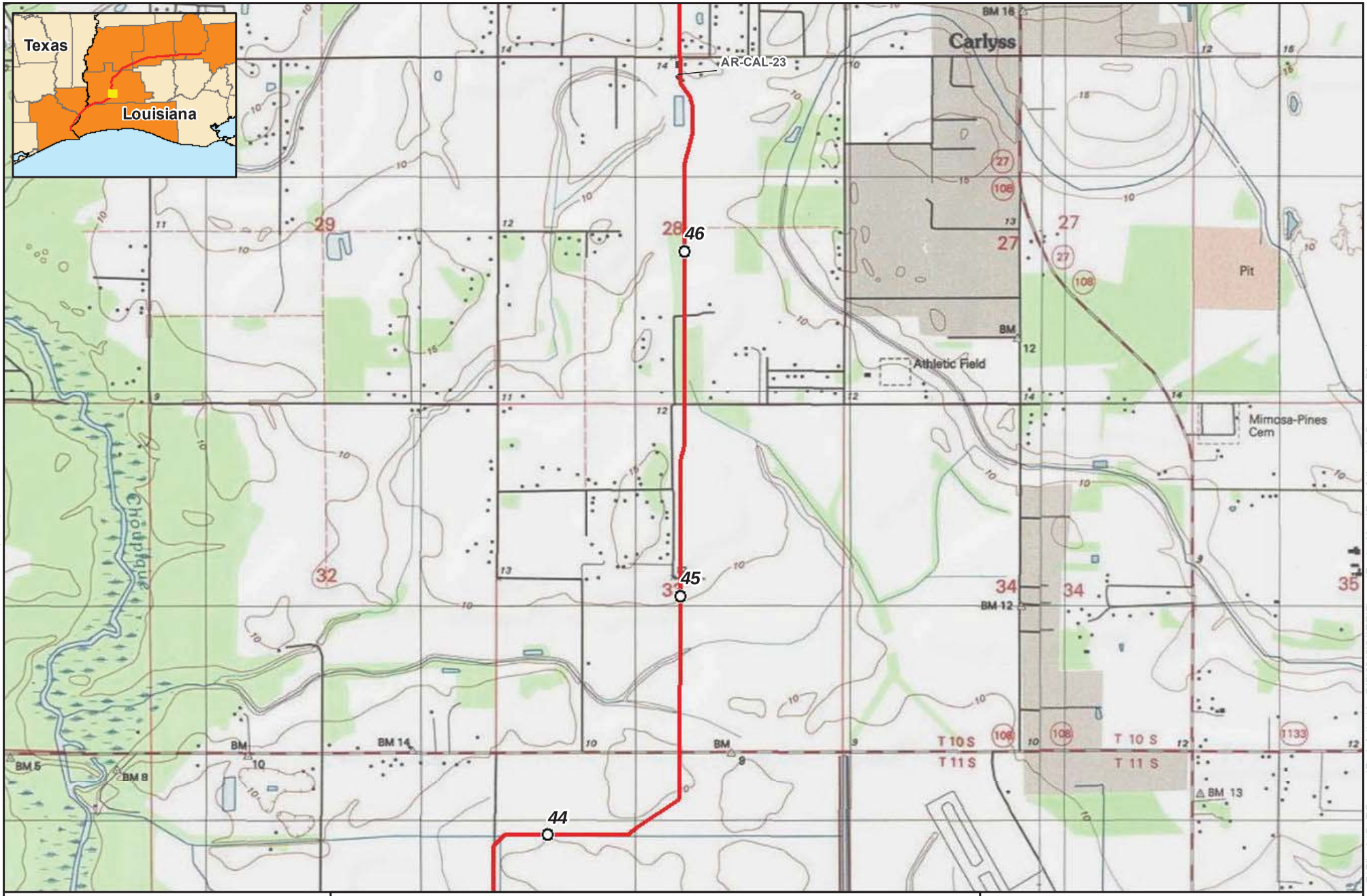
Page 13 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

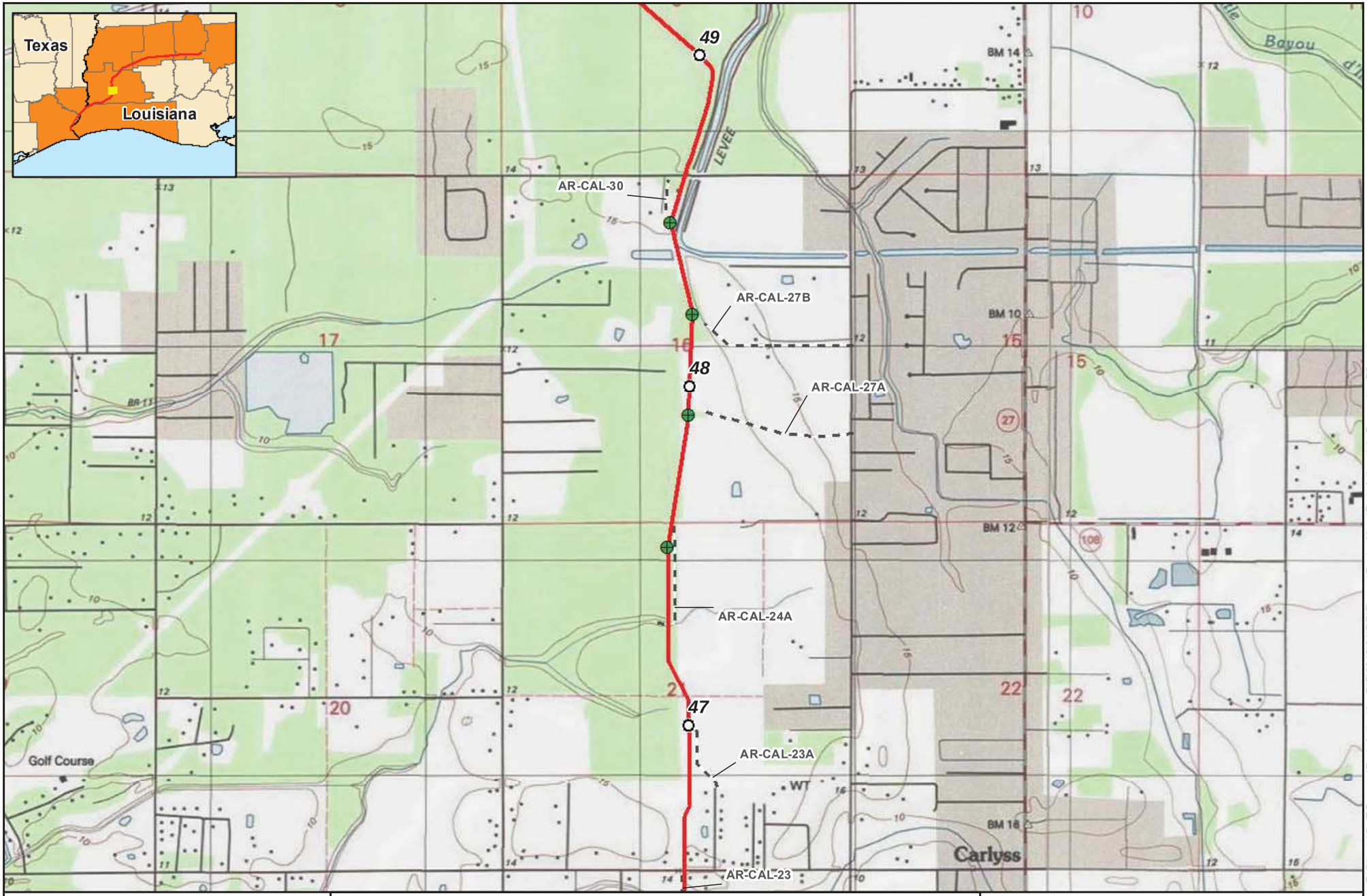
Page 14 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TSempra\Port_ArthurArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

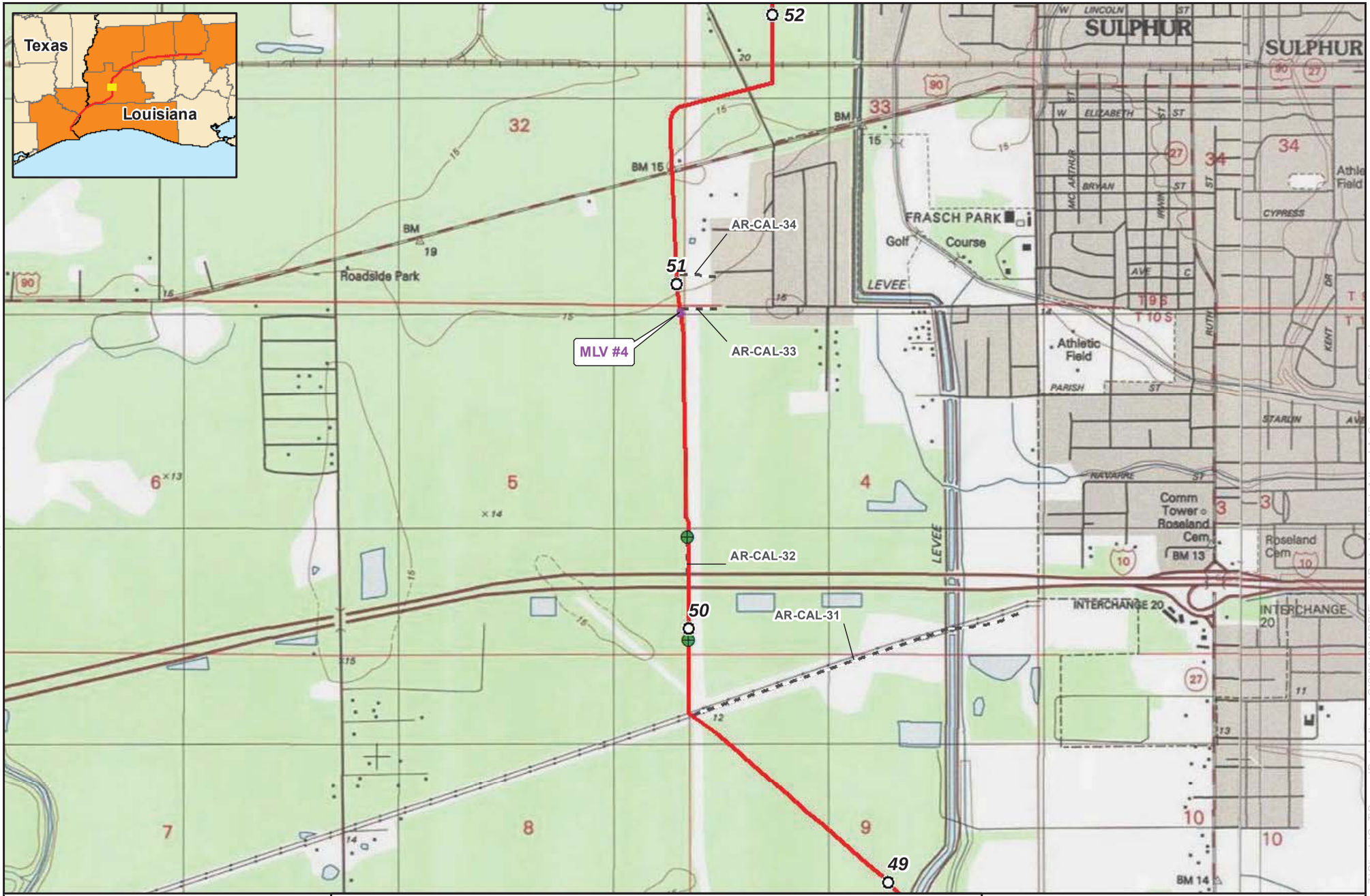
Page 15 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TiSempra\Port_ArthurArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

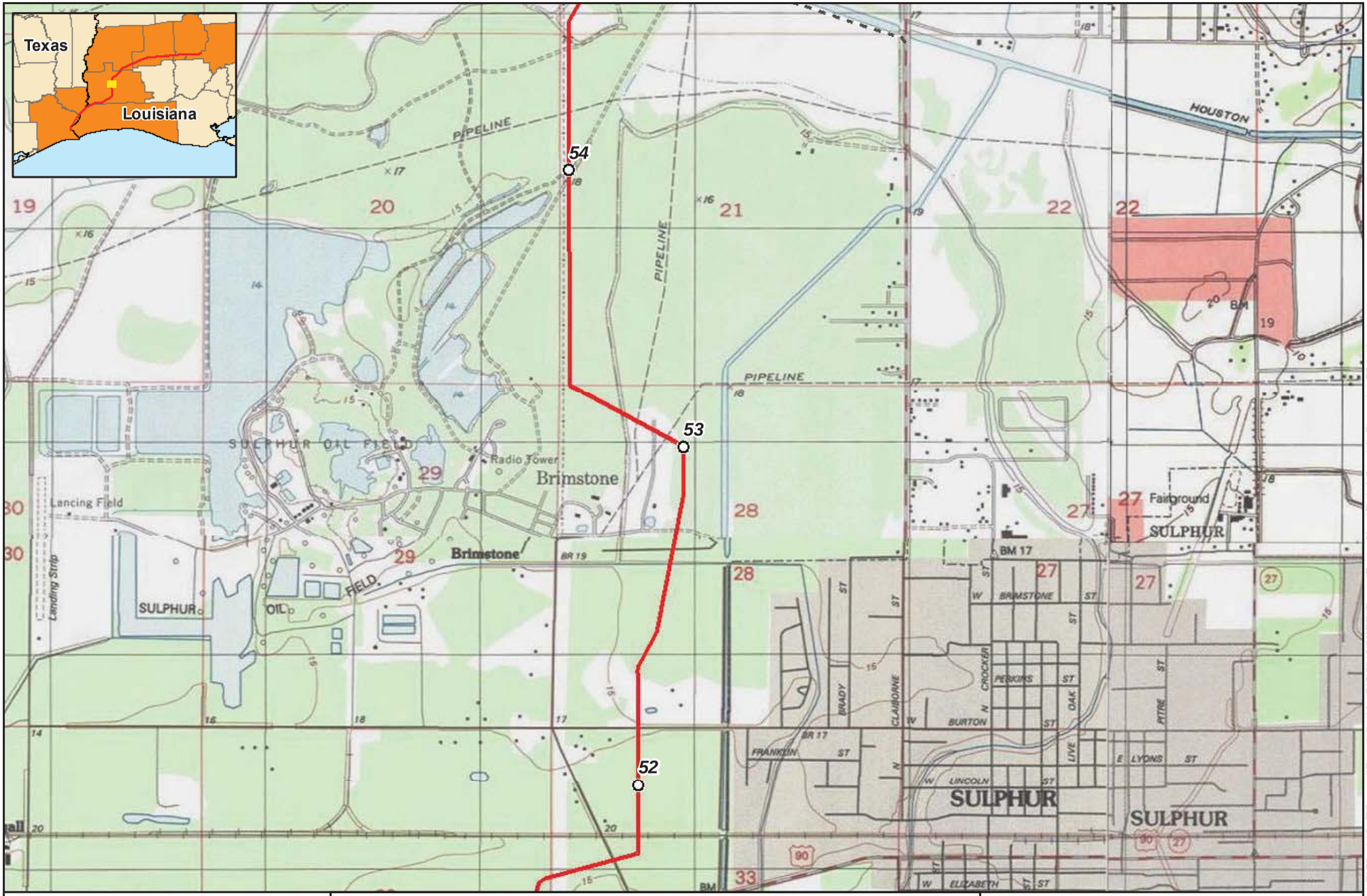
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

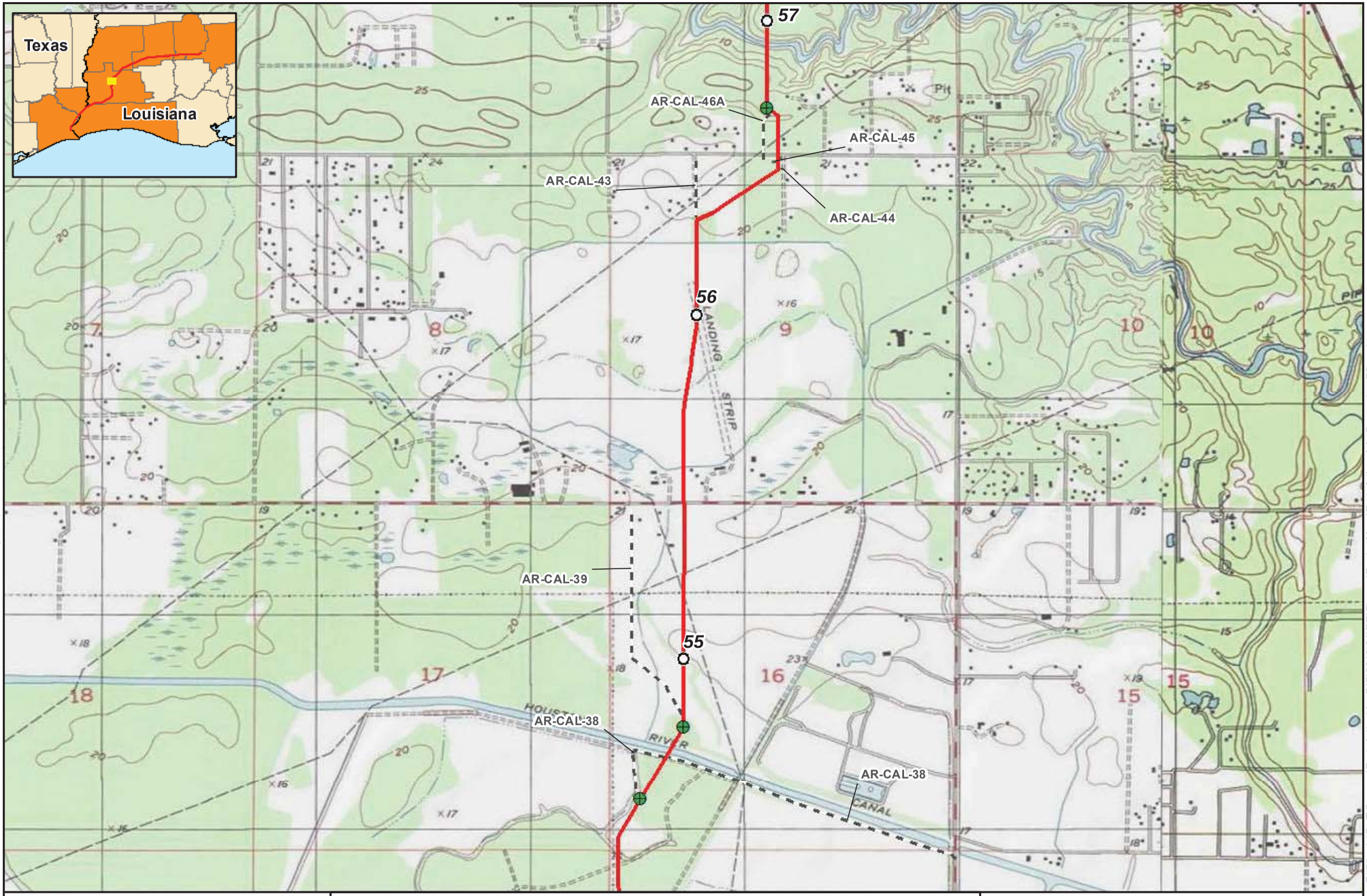
Page 17 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 18 of 38

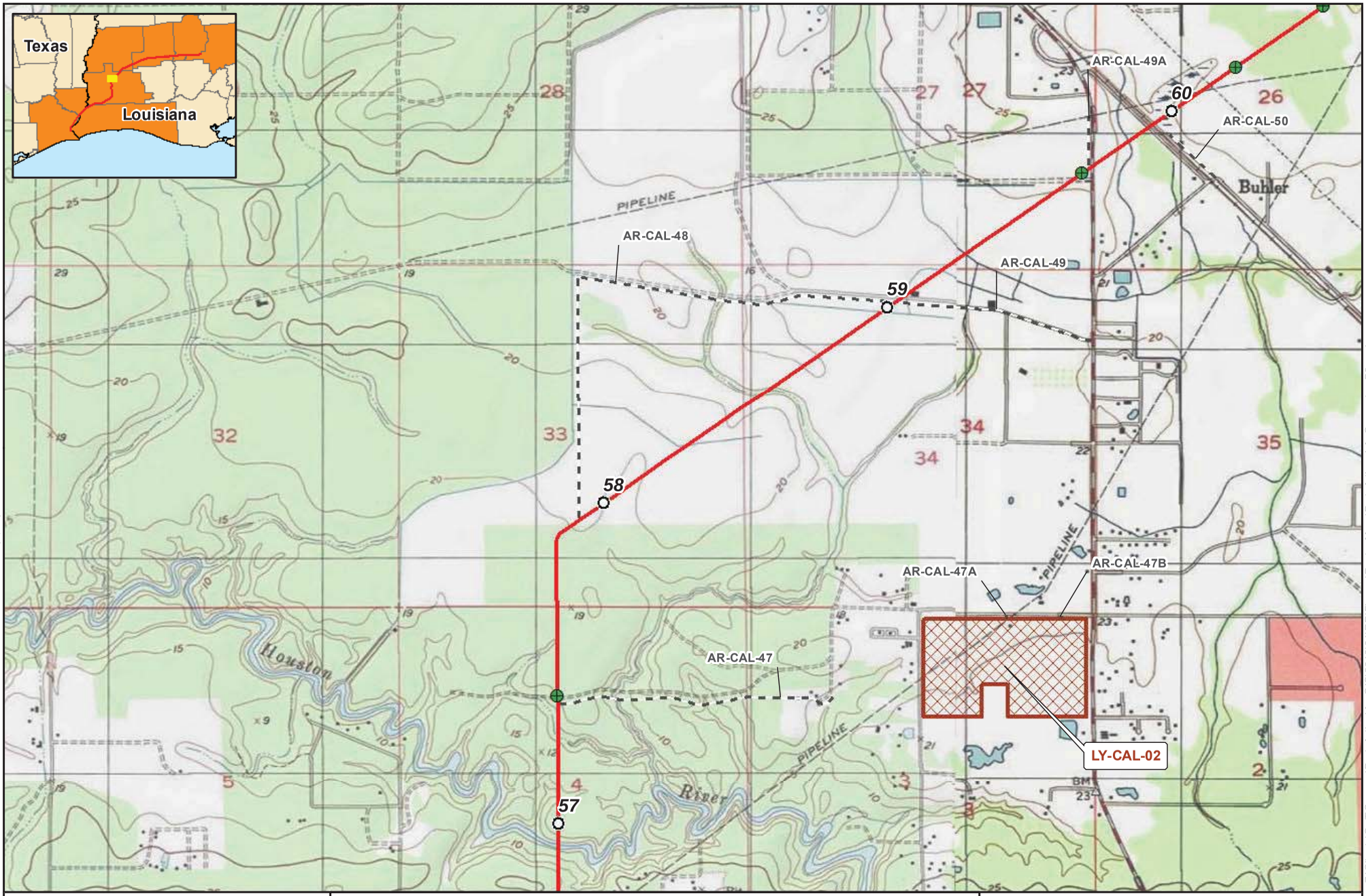
Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

B-3-18

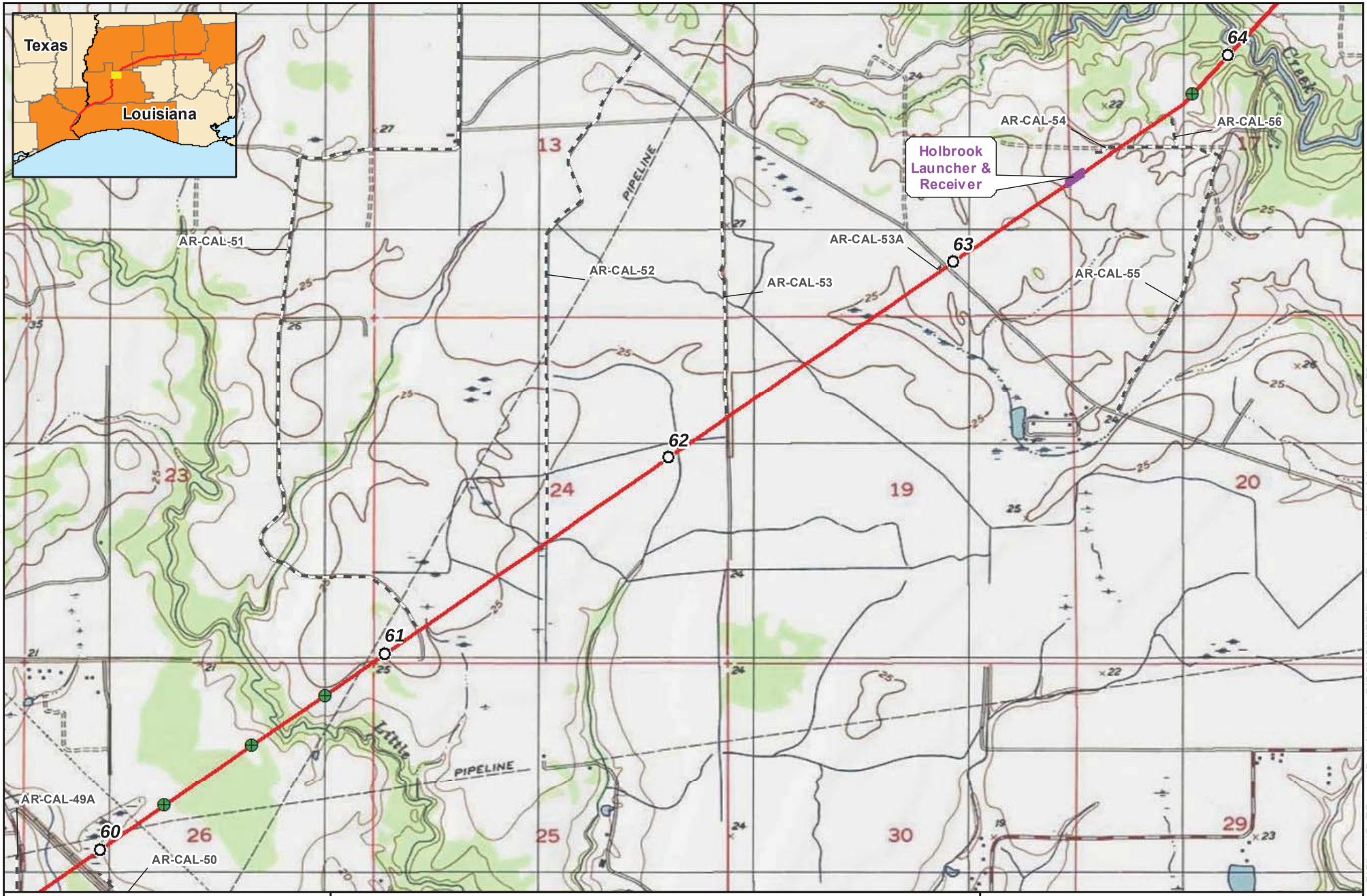


Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3

Louisiana Connector Project

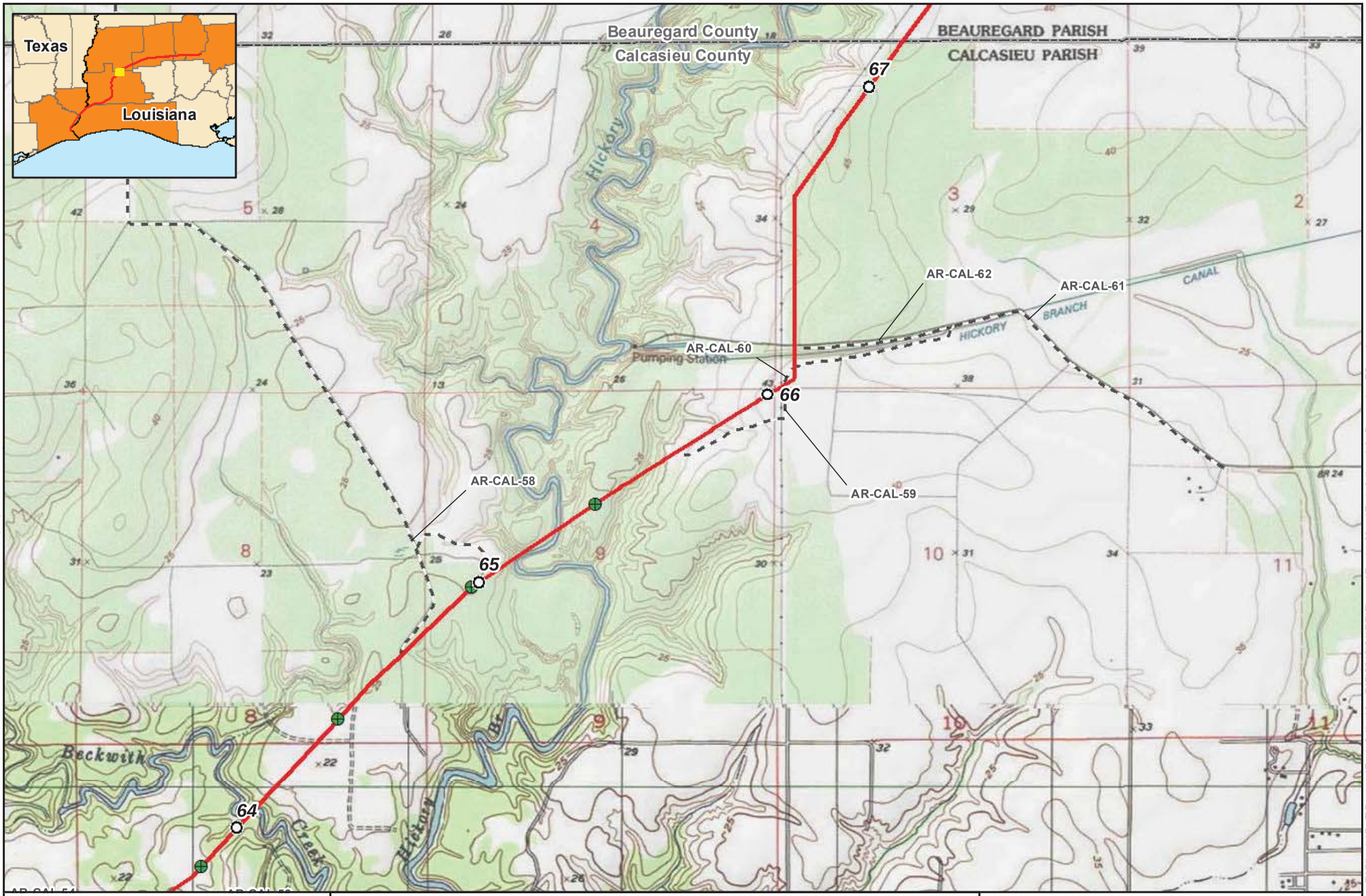
Route Map

Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 21 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Calcasieu Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TSempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

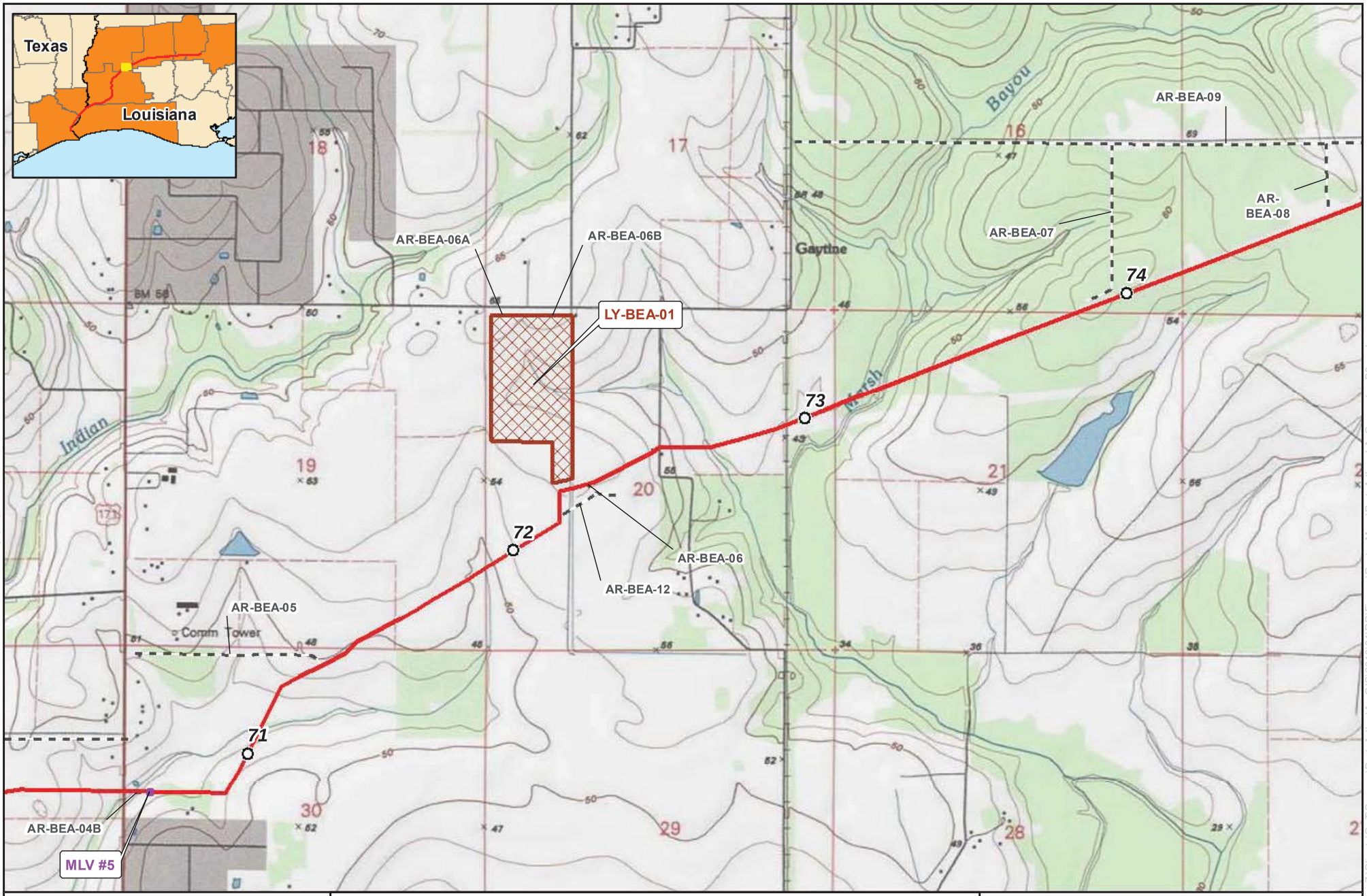
Page 22 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Beauregard Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 23 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Beauregard Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

B-3-24

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

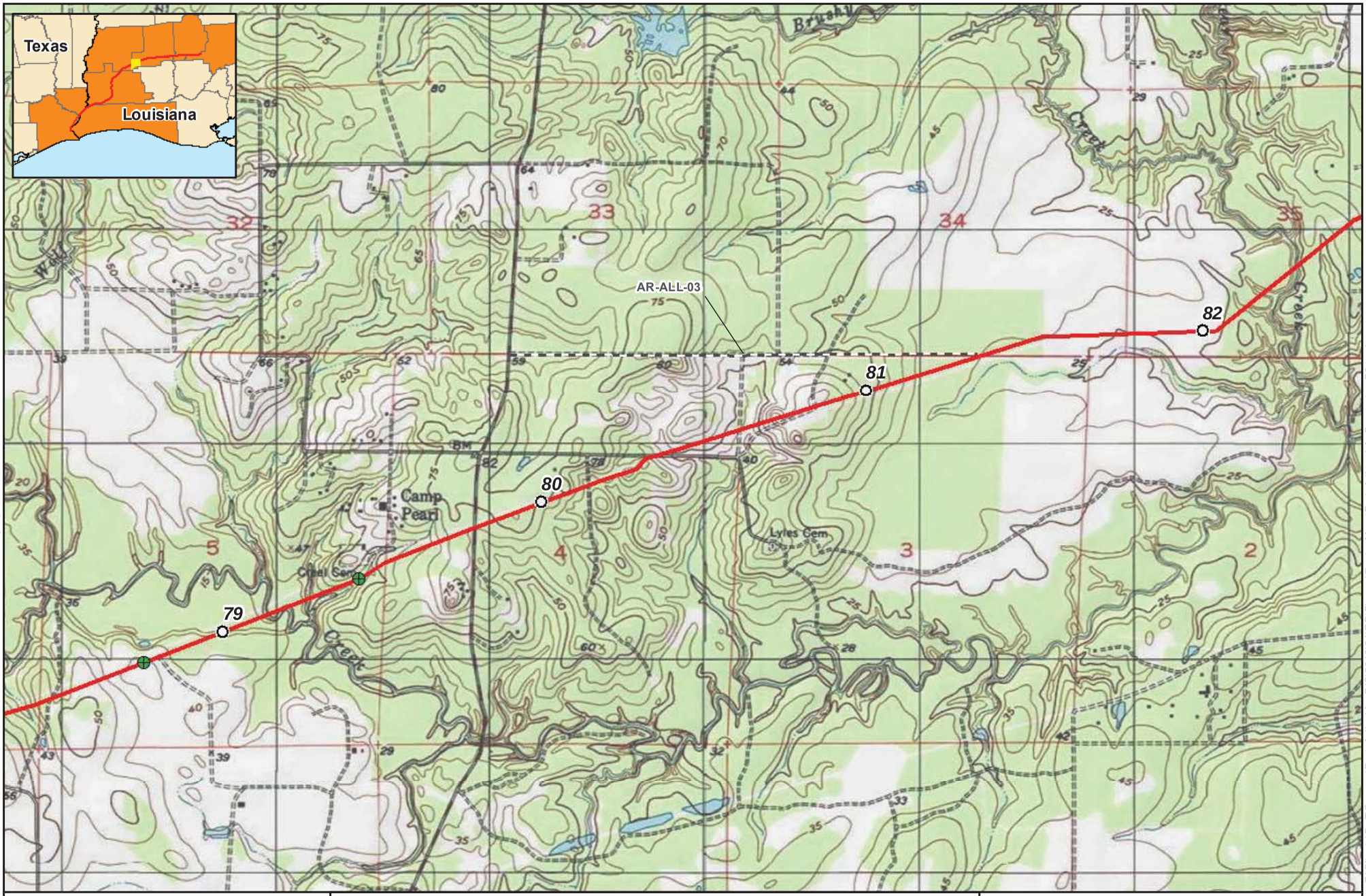
Page 24 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Beauregard and Allen Parishes, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

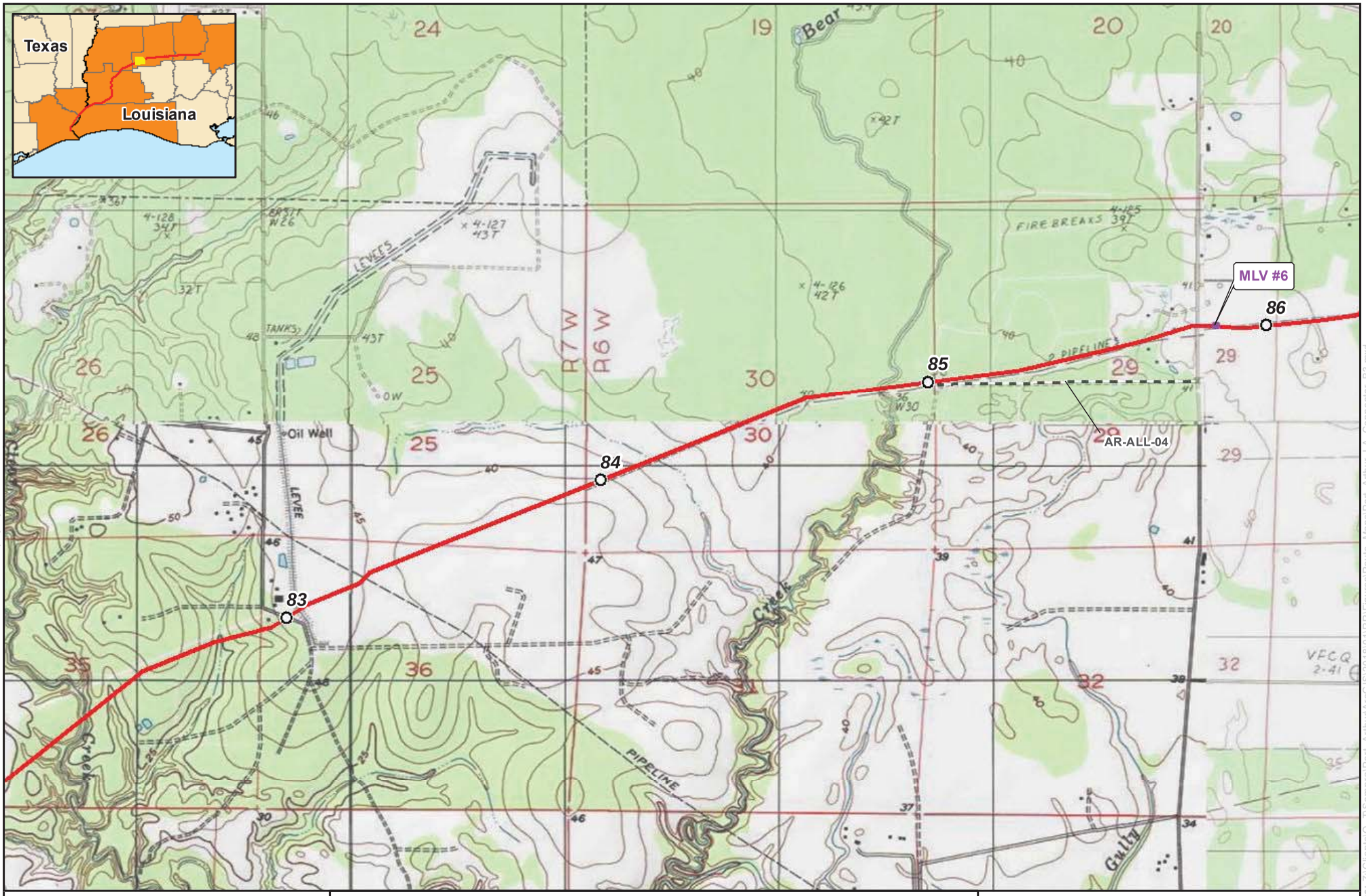
Page 25 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-26

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3

Louisiana Connector Project

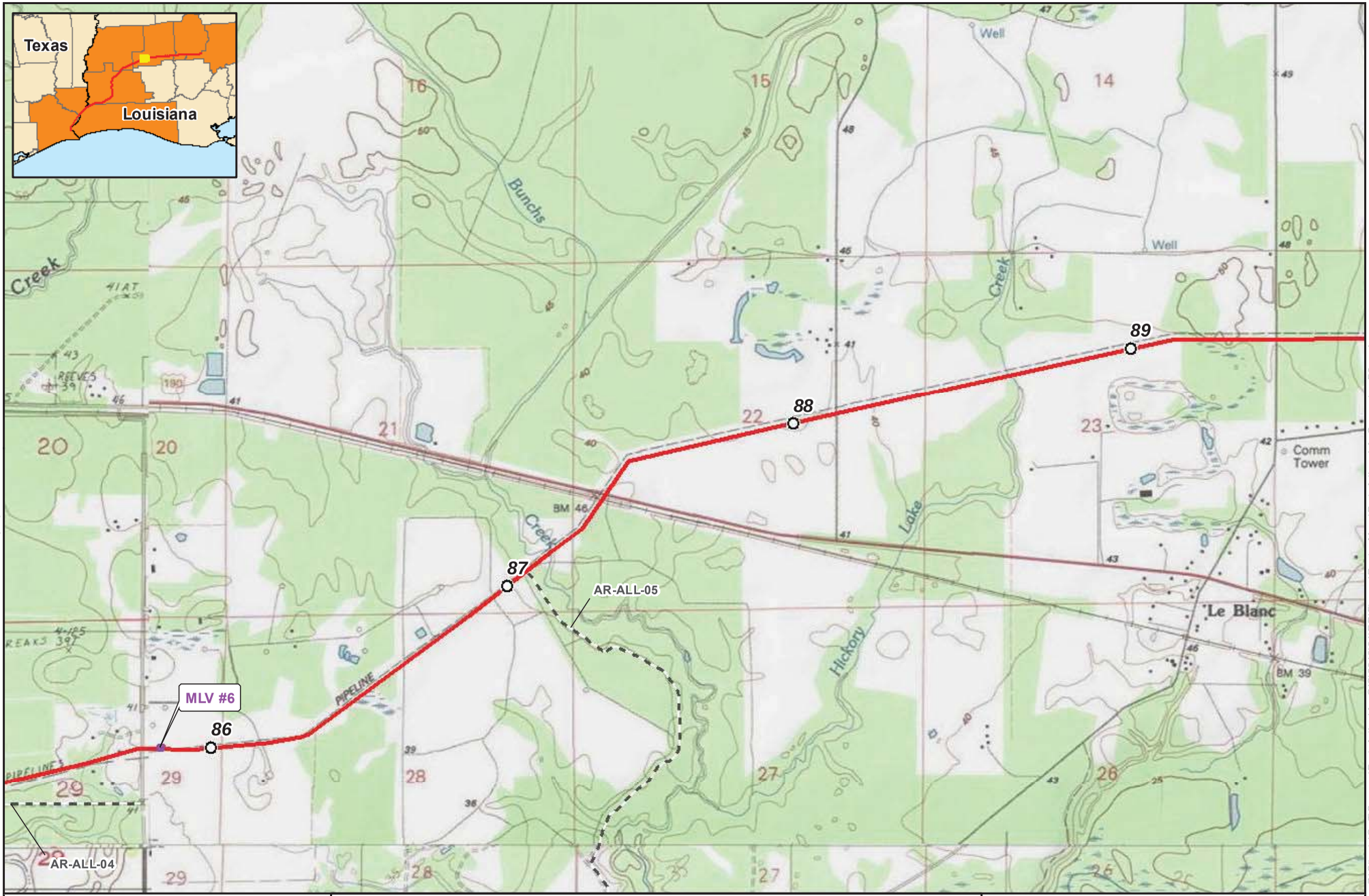
Route Map

Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-27

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

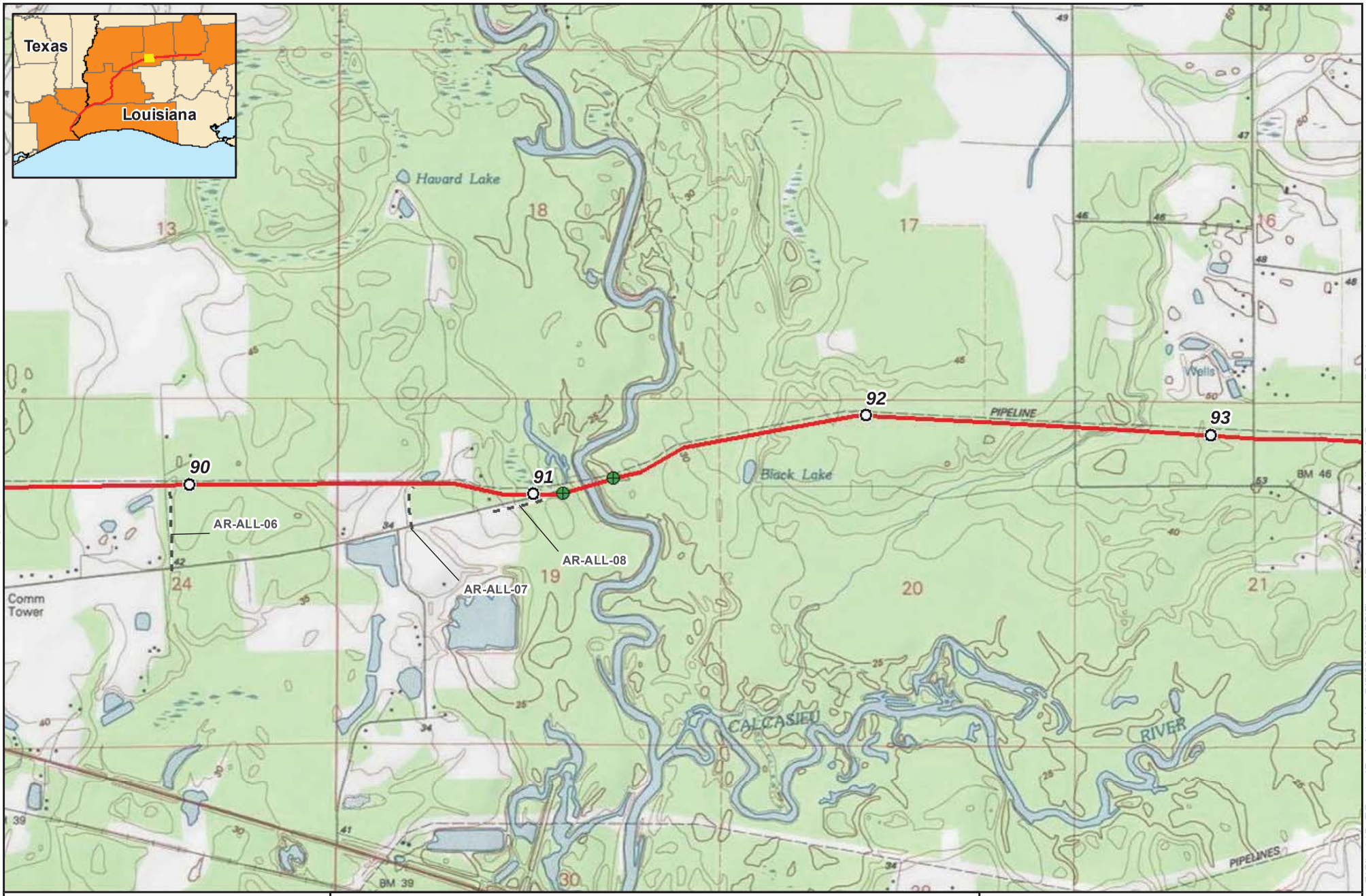
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-28

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

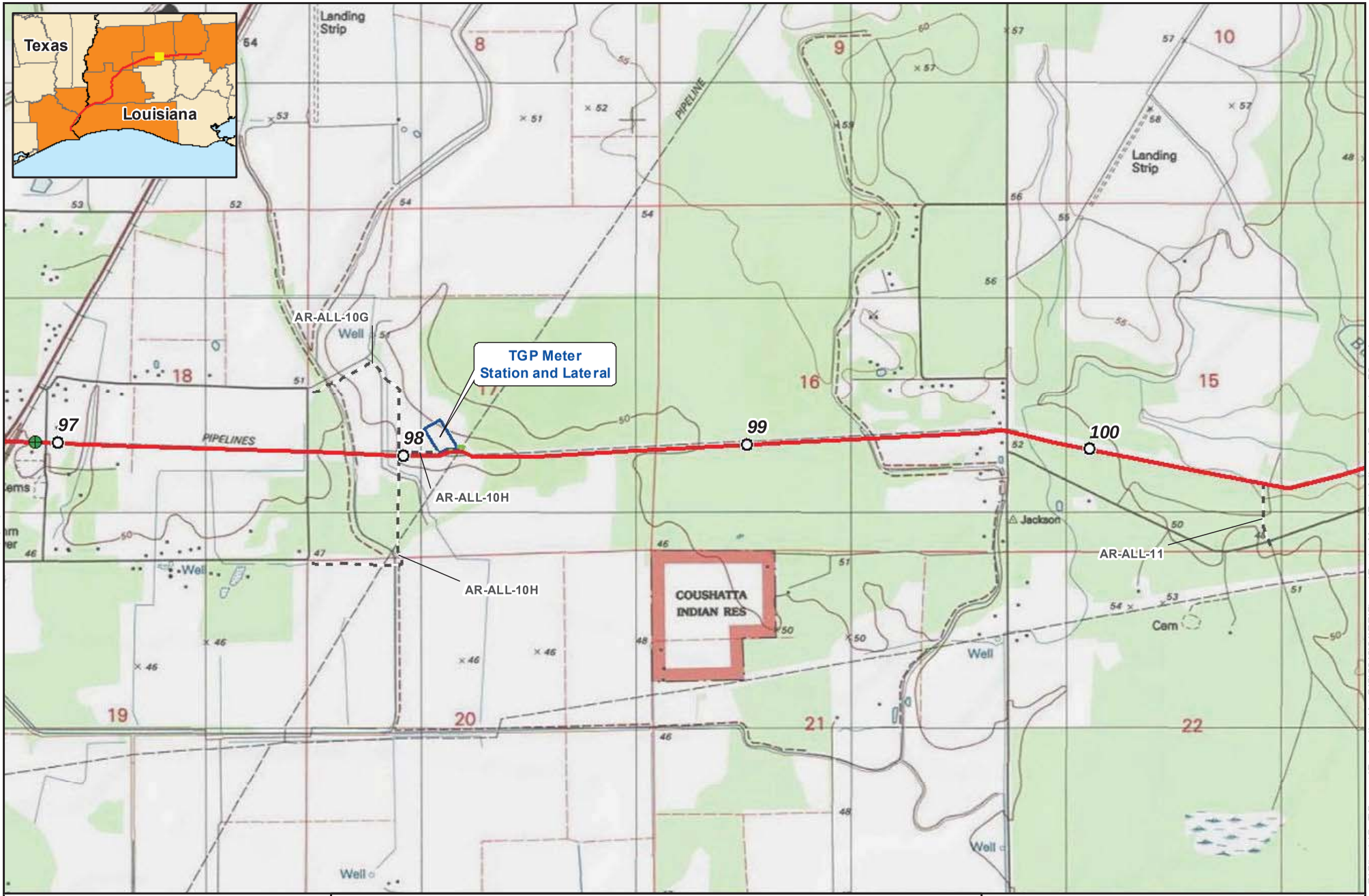
Page 29 of 38

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (2/7/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

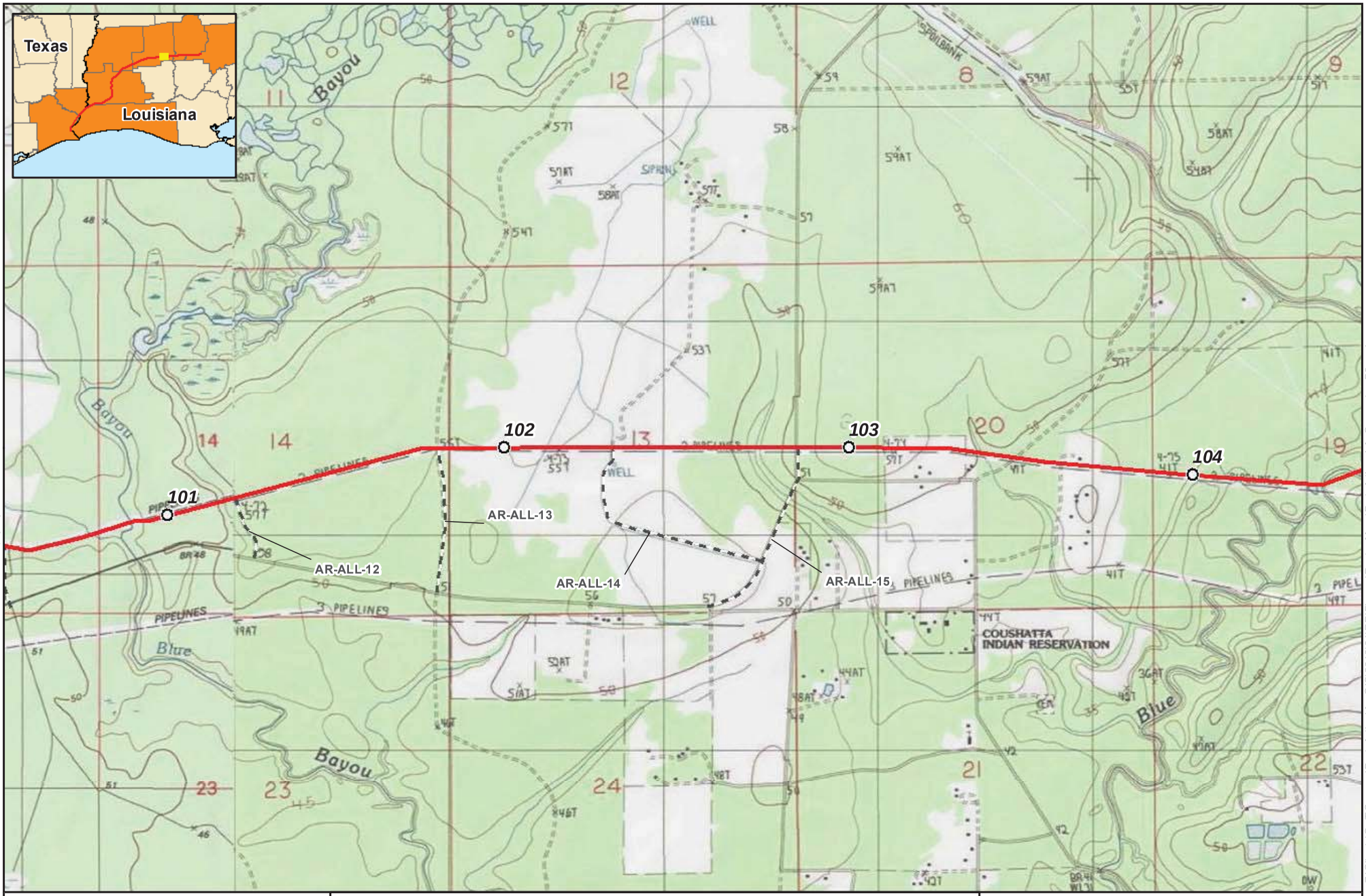
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-31

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

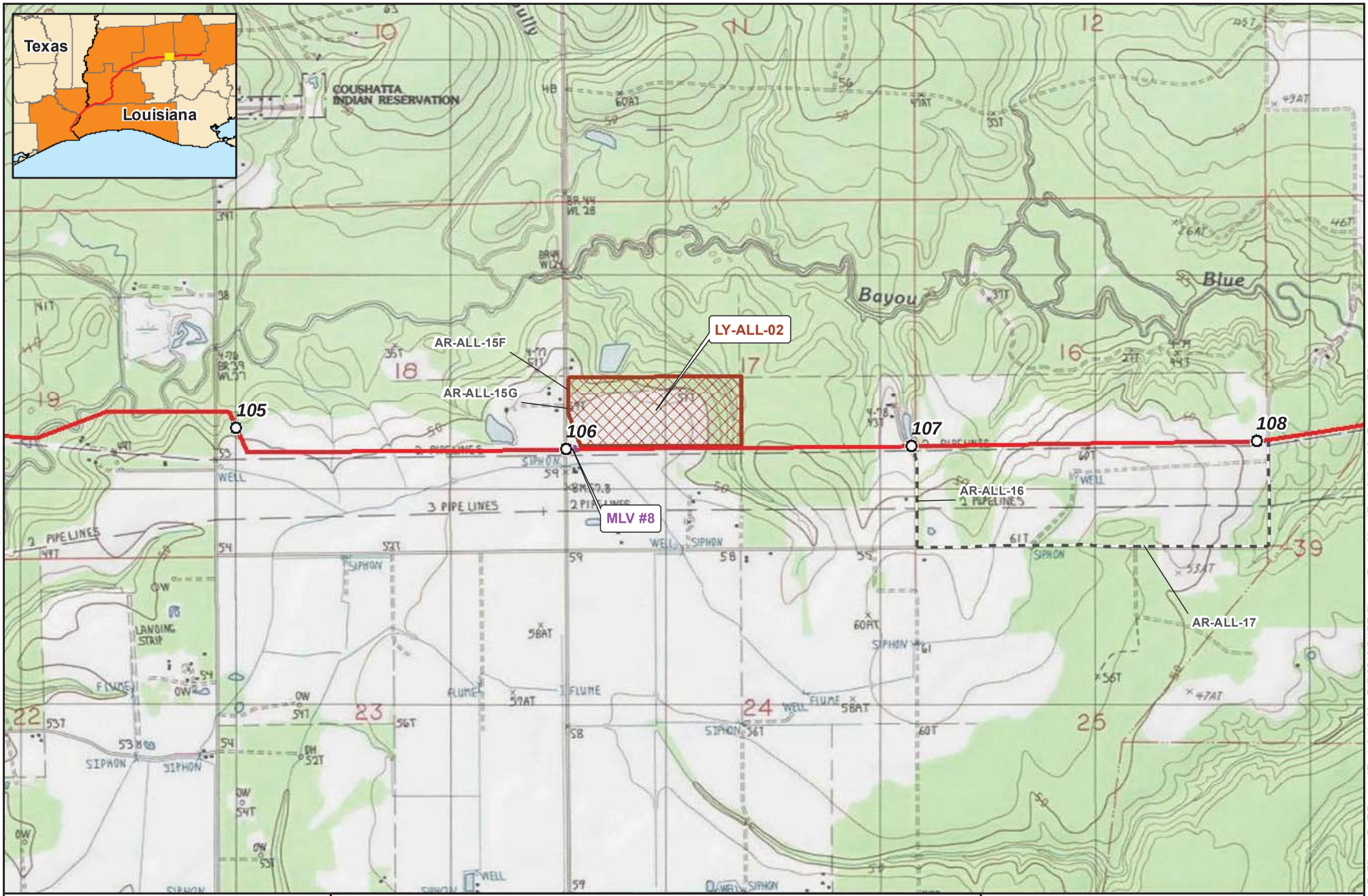
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TiSempra\Port_ArthurArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-32

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 32 of 38

Appendix B-3

Louisiana Connector Project

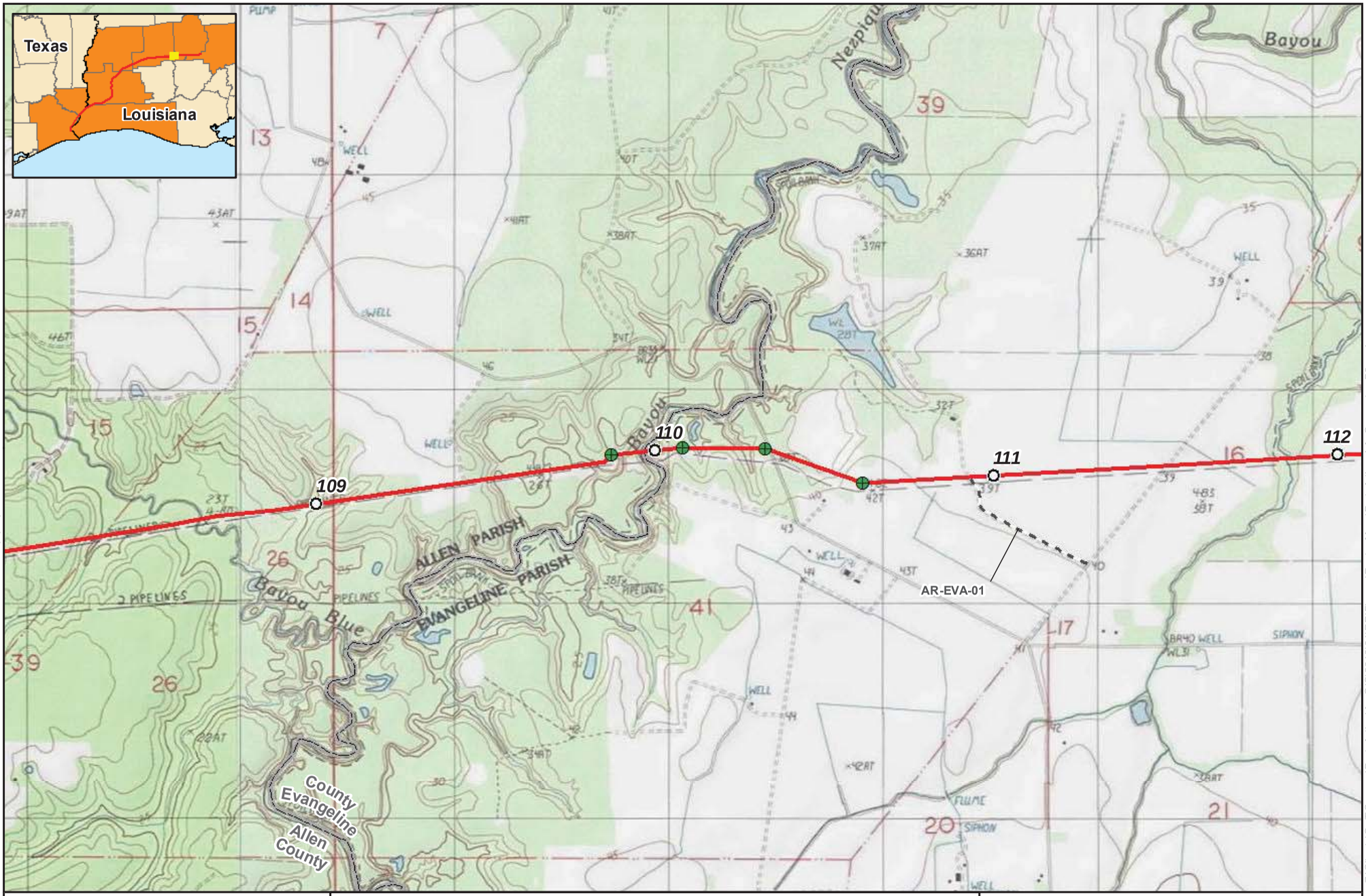
Route Map

Allen Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



B-3-33

0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Page 33 of 38

Appendix B-3

Louisiana Connector Project

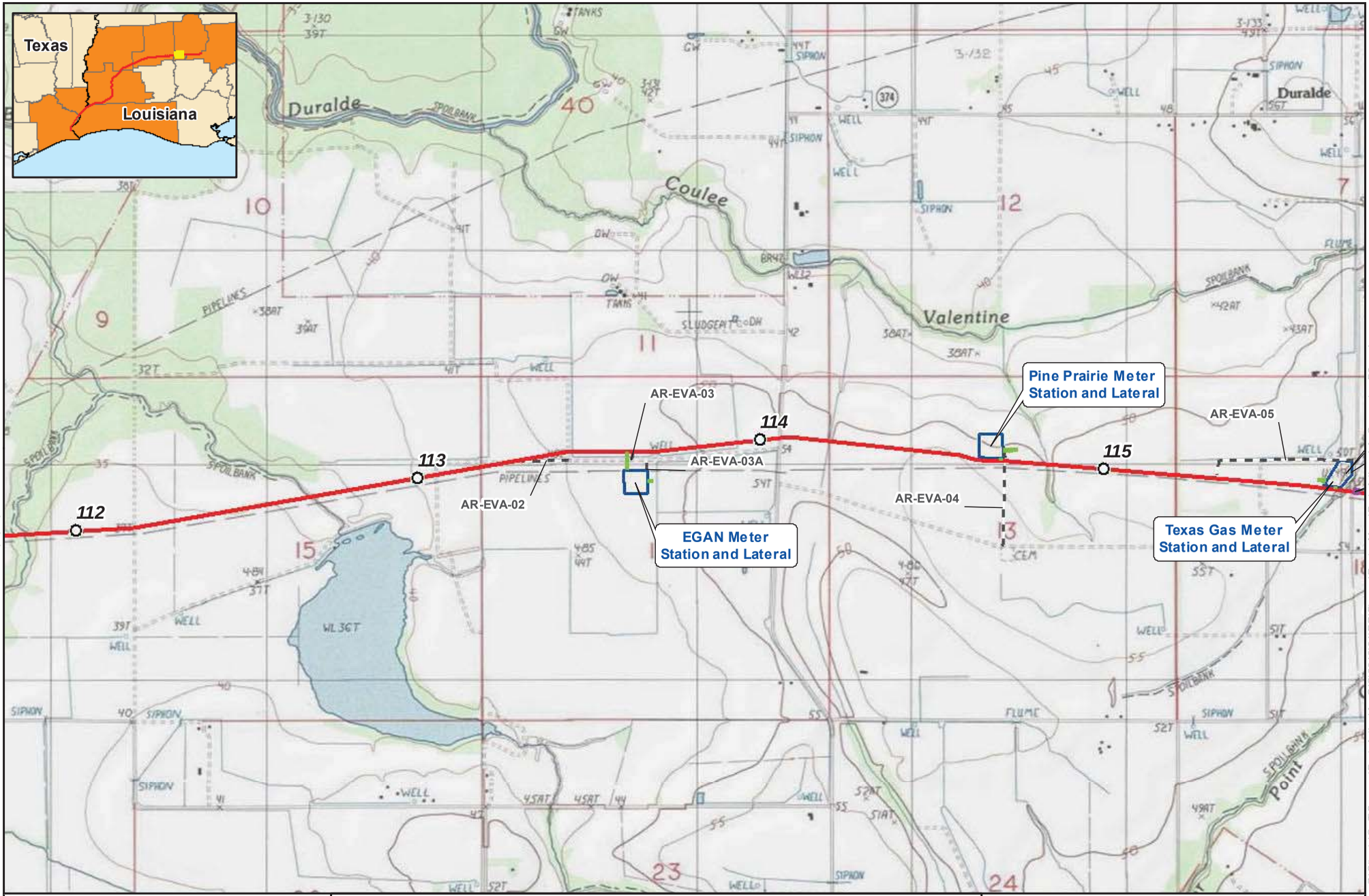
Route Map

Allen and Evangeline Parishes, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\20180101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

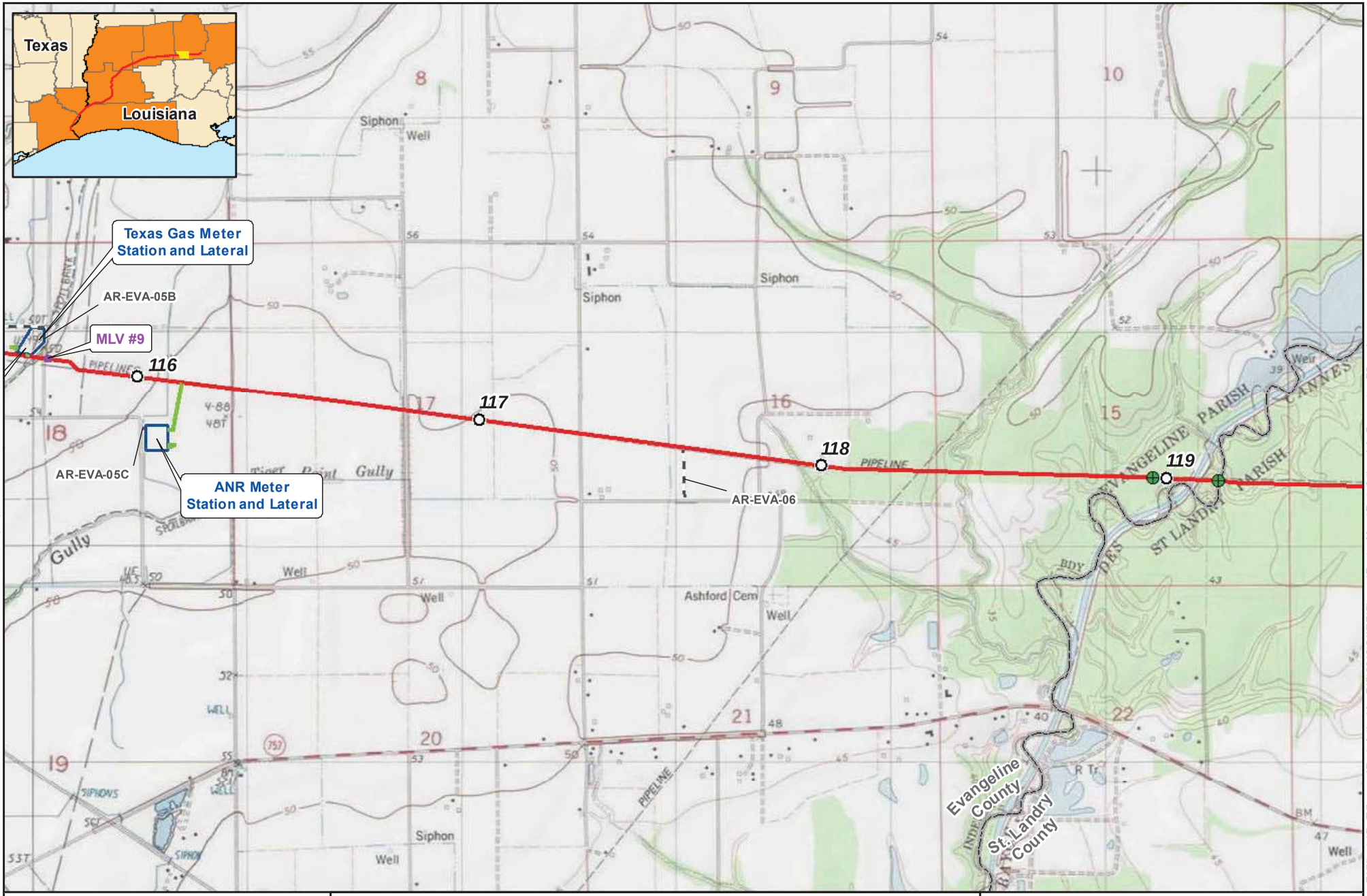
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Evangeline Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TiSempra\Port_ArthurArcGIS\2018101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

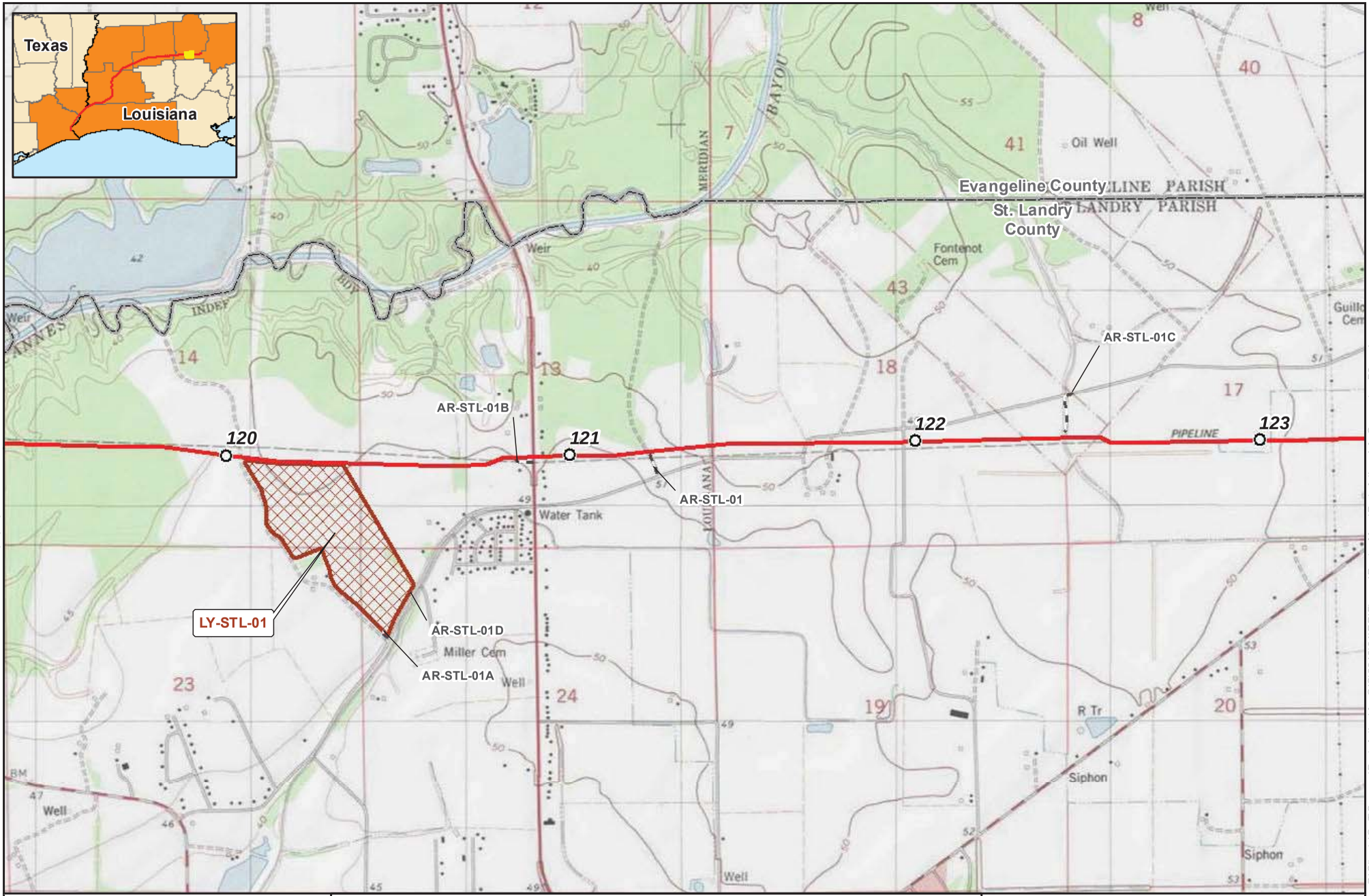
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
Evangeline Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TiSempra\Port_Arthur\ArcGIS\2018101\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

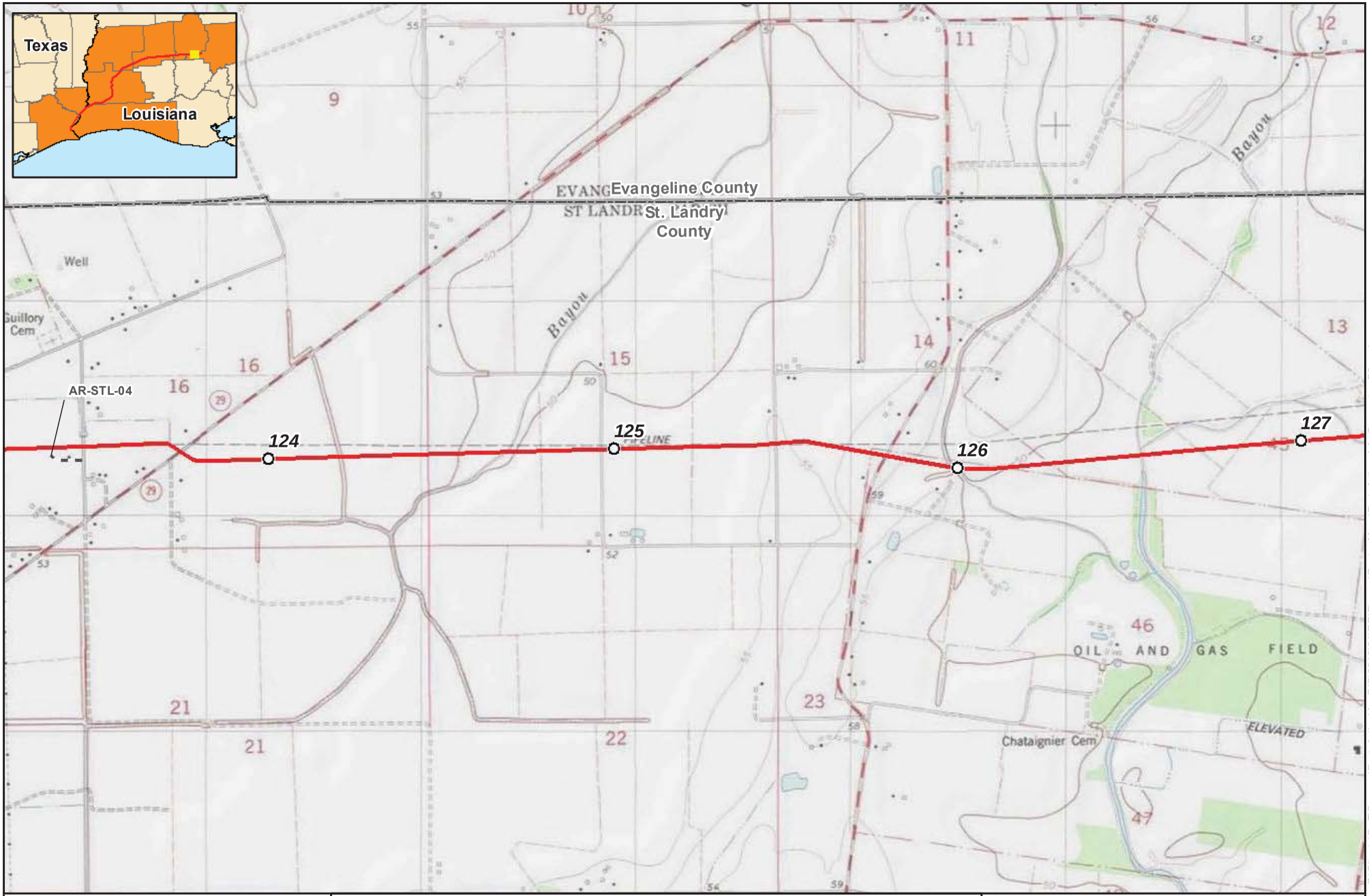
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
St. Landry Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_T\Sempra\Port_Arthur\ArcGIS\2018\01\RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

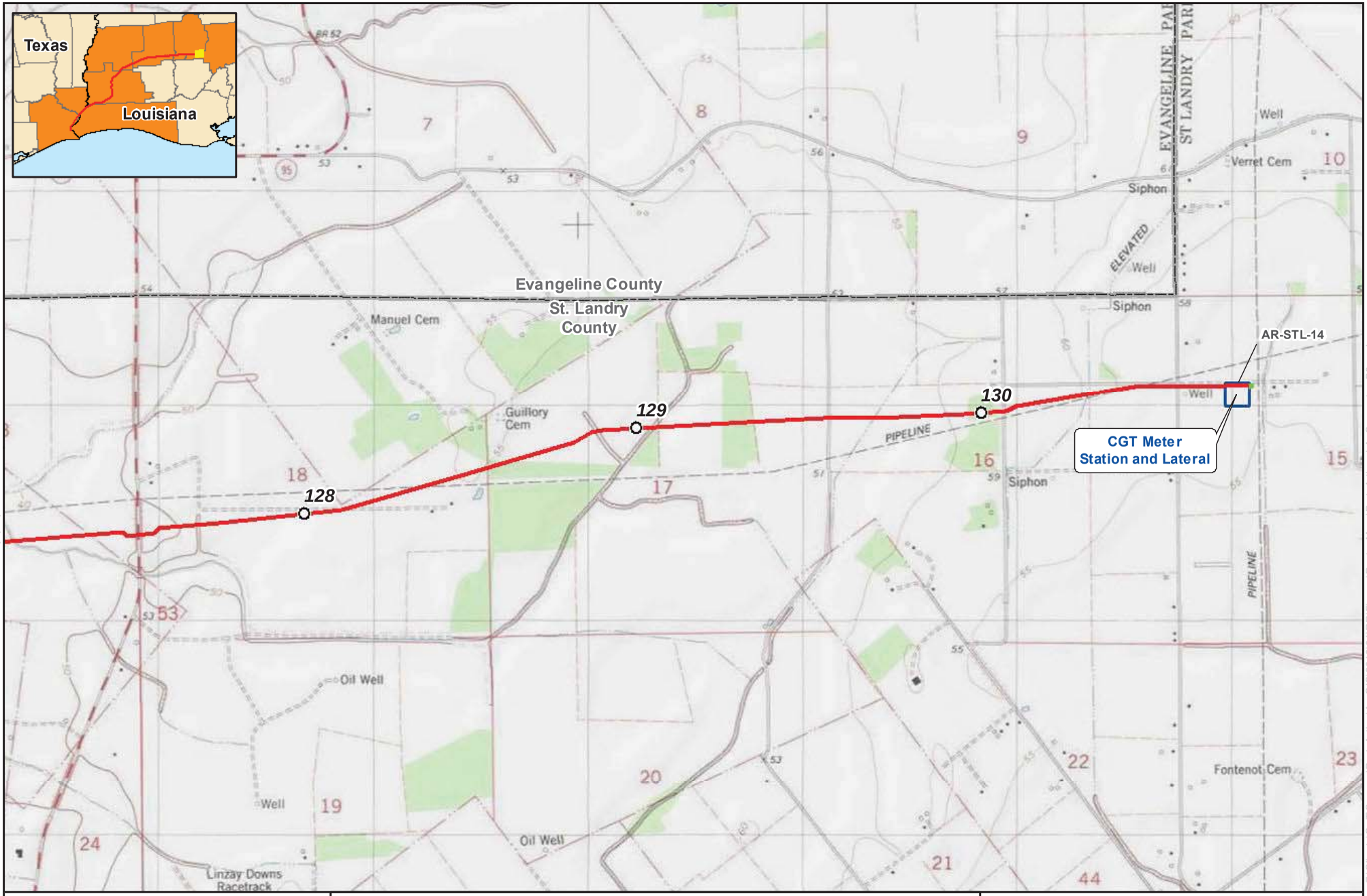
For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
St. Landry Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TiSempra\Port_ArthurArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)



0 1,000 2,000 Feet

1 inch = 2,000 feet

N W E S

For Environmental Review Purposes Only

Appendix B-3
Louisiana Connector Project
Route Map
St. Landry Parish, Louisiana

- Milepost
- Proposed HDD Entry/Exit
- Proposed Pipeline
- Proposed Lateral
- Proposed Access Road
- Proposed Valve
- Proposed Compressor Station
- Proposed Contractor Yard
- Proposed Meter Station
- County Boundary

Source: Z:\Clients\Q_TSempra\Port_Arthur\ArcGIS\20180101RR\Figures\Route_Maps\Port_Arthur_LA_Connector_B3.mxd

Date: (1/15/2018)

APPENDIX C

PIPELINE CONSTRUCTION RIGHT-OF-WAY WIDTHS FOR THE TEXAS CONNECTOR PROJECT

APPENDIX C

Pipeline Construction Right-of-Way Widths for the Texas Connector Project

Pipeline Milepost Range	Proposed Construction Right-of-way Width	Conditions or Construction Method
Northern Pipeline		
0.0 – 1.5	125 feet	Saturated wetlands
1.5 – 2.4	0 feet	HDD crossing
2.4 – 4.1	125 feet	Saturated wetlands
4.1 – 6.2	0 feet	HDD crossing
6.2 – 8.3	125 feet	Saturated wetlands
8.3 – 8.9	0 feet	HDD crossing
8.9 – 10.0	125 feet	Saturated wetlands
10.0 – 10.9	0 feet	HDD crossing
10.9 – 11.6	125 feet	Saturated wetlands
11.6 – 12.2	0 feet	HDD crossing
12.2 – 12.4	100 feet	Non-saturated wetlands
12.4 – 12.7	125 feet	Upland
12.7 – 12.8	100 feet	Non-saturated wetlands
12.7 – 13.0	125 feet	Upland
13.0 – 13.2	0 feet	HDD crossing
13.2 – 14.2	125 feet	Upland and non-saturated wetlands
14.2 – 14.4	0 feet	HDD crossing
14.4 – 15.9	125 feet	Upland and non-saturated wetlands
15.9 – 16.7	100 feet	Upland and non-saturated wetlands
16.7 – 16.7	125 feet	Upland
16.7 – 16.9	100 feet	Upland and non-saturated wetlands
16.9 – 17.2	125 feet	Upland and non-saturated wetlands
17.2 – 17.3	100 feet	Upland and non-saturated wetlands
17.3 – 17.6	125 feet	Upland and non-saturated wetlands
17.6 – 18.1	0 feet	HDD crossing
18.1 – 18.2	125 feet	Upland and non-saturated wetlands
18.2 – 18.5	0 feet	HDD crossing
18.5 – 18.6	125 feet	Upland and non-saturated wetlands
18.6 – 18.9	0 feet	HDD crossing
18.9 – 19.1	125 feet	Upland and non-saturated wetlands
19.1 – 19.3	100 feet	Upland and non-saturated wetlands
19.3 – 19.4	125 feet	Upland and non-saturated wetlands
19.4 – 19.5	100 feet	Upland and non-saturated wetlands
19.5 – 19.6	125 feet	Upland and non-saturated wetlands
19.6 – 20.2	0 feet	HDD crossing
20.2 – 20.3	125 feet	Upland and non-saturated wetlands
20.3 – 20.7	0 feet	HDD crossing
20.7 – 20.8	125 feet	Upland and non-saturated wetlands
20.8 – 21.3	100 feet	Upland and non-saturated wetlands
21.3 – 21.5	125 feet	Upland and non-saturated wetlands
21.5 – 21.5	100 feet	Upland and non-saturated wetlands
21.5 – 21.6	125 feet	Upland and non-saturated wetlands
21.6 – 22.4	0 feet	HDD crossing
22.4 – 22.5	125 feet	Upland
22.5 – 22.6	100 feet	Upland and non-saturated wetlands
22.6 – 22.9	125 feet	Upland and non-saturated wetlands
22.9 – 22.9	100 feet	Upland and non-saturated wetlands
22.9 – 23.7	0 feet	HDD crossing

APPENDIX C (cont'd)

Pipeline Construction Right-of-Way Widths for the Texas Connector Project

Pipeline Milepost Range	Proposed Construction Right-of-way Width	Conditions or Construction Method
23.7 – 24.4	125 feet	Upland and saturated wetlands
24.4 – 24.4	100 feet	Upland and non-saturated wetlands
24.4 – 24.5	125 feet	Upland
24.5 – 24.5	100 feet	Upland and non-saturated wetlands
24.5 – 24.6	125 feet	Upland and non-saturated wetlands
24.6 – 25.2	0 feet	HDD crossing
25.2 – 26.6	125 feet	Upland
Southern Pipeline		
0.0 – 0.1	125 feet	Upland and saturated wetlands
0.1 – 1.0	0 feet	HDD crossing
1.0 – 2.2	125 feet	Upland and saturated wetlands
2.2 – 2.5	0 feet	HDD crossing
2.5 – 2.9	125 feet	Saturated wetlands
2.9 – 3.7	0 feet	HDD crossing
3.7 – 6.2	125 feet	Upland and saturated wetlands
7.0 – 7.2	125 feet	Upland
7.5 – 7.6	125 feet	Saturated wetlands
NGPL Lateral		
0.0 – 0.1	125 feet	Upland and saturated wetlands
KMLP Lateral		
0.0 – 0.2	125 feet	Saturated wetlands
GTS Lateral		
0.0 – 0.2	125 feet	Upland
0.2 – 0.5	100 feet	Upland and non-saturated wetlands
0.5 – 0.5	125 feet	Upland and non-saturated wetlands
0.5 – 0.8	0 feet	HDD crossing
0.8 – 0.8	125 feet	Upland
0.8 – 1.1	0 feet	HDD crossing
1.1 – 1.3	125 feet	Upland
HPL Lateral		
0.0 – 0.1	125 feet	Upland
TETCO Lateral		
0.0 – 0.1	125 feet	Upland
FGT Lateral		
0.0 – 0.3	125 feet	Upland and non-saturated wetland
0.3 – 0.3	0 feet	HDD crossing
0.3 – 0.3	125 feet	Upland
0.3 – 0.3	75 feet	Upland (avoids electric transmission pole)
0.3 – 0.5	125 feet	Upland
0.5 – 0.6	100 feet	Upland and non-saturated wetland
0.6 – 0.7	125 feet	Upland
0.7 – 0.8	100 feet	Upland and non-saturated wetland
0.8 – 0.9	125 feet	Upland and non-saturated wetland
0.9 – 1.2	0 feet	HDD crossing
1.2 – 1.3	125 feet	Upland and non-saturated wetland
1.3 – 1.4	100 feet	Upland and non-saturated wetland
1.4 – 1.7	125 feet	Upland
1.7 – 1.8	0 feet	HDD crossing
1.8 – 1.8	125 feet	Upland

APPENDIX D

ADDITIONAL TEMPORARY WORKSPACE FOR THE TEXAS CONNECTOR AND LOUISIANA CONECTOR PROJECTS

ADDITIONAL TEMPORARY WORKSPACE FOR THE TEXAS CONNECTOR PROJECT

APPENDIX D-1

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands: Within ATWS	Wetlands: Within 50 ft. of ATWS	Site-Specific Justification
Northern Pipeline						
28290	1.5	3.2	Intracoastal Waterway	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28211	1.5	5.9	Intracoastal Waterway	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28203	1.5	0.4	Intracoastal Waterway	Y	Y	Water Access
						Necessary to tie-in pipeline at a point of intersection (PI), after a long HDD across Intracoastal Waterway; additional spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28198	1.5	0.8	Intracoastal Waterway	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28202	1.6	0.4	Intracoastal Waterway	Y	Y	Water Access
						Necessary to tie-in pipeline at a PI, after a long HDD across Intracoastal Waterway; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28204	2.6	0.3	Taylor Bayou	Y	Y	Water Access
						Necessary to tie-in pipeline at a PI, after a long HDD across Taylor Bayou; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28199	2.7	1.8	Taylor Bayou	Y	Y	HDD Entry/Push Section
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for push: staging the bore machine for the push construction, backhoe machine(s), and pipe material staging. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28244	4.1	0.7	Big Hill Reservoir	Y	Y	Water Access
						Necessary to tie-in pipeline at a PI, after a long HDD across Taylor Bayou; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28243	4.1	0.8	Big Hill Reservoir	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28200	5.2	2.0	Big Hill Reservoir	Y	Y	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28205	5.2	0.7	Big Hill Reservoir	Y	Y	Water Access
						Necessary to tie-in pipeline at a PI, after a long HDD across JD Murphee and Big Hill Bayou; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28206	5.2	0.6	Big Hill Reservoir	Y	Y	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28209	5.3	1.1	Big Hill Reservoir	Y	Y	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28236	6.2	0.2	Unnamed stream	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28208	6.2	0.5	Unnamed stream	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28286	7.7	2.8	Unnamed road	Y	Y	Push Section
						Additional staging area and equipment needs includes staging the bore machine for the push construction, backhoe machine(s), and pipe material staging. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28155	7.8	0.2		Y	Y	Road

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
			Unnamed wetland			Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Wetland impacts required due to the road located on the North side of the pipeline. Moving the ATWS to the South side would not assist with the road crossing and is restricted by foreign pipelines and valve sites.
28201	7.9	0.1	Unnamed road	Y	Y	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28241	8.2	0.2	State Hwy 73	Y	Y	PI/Pull String
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. ATWS is required on this portion due to the many construction activities taking place in the area. Shifting this ATWS to any other workable configuration would not reduce the wetland impacts.
28156	8.2	3.9	State Hwy 73	Y	Y	PI/Pull String
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The wetland impacts here are unavoidable since the pull-string must be adjacent to the other pipeline ATWS.
28289	8.3	1.9	State Hwy 73	Y	Y	HDD Exit/Access
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. Maintain through access for equipment and personnel. The HDD pad in this area was placed so that it would have the least impact on surrounding wetlands. The surrounding wetlands were unavoidable in the area.
28165	8.9	0.6	Unnamed road	Y	Y	HDD Entry/Push Section
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for push: staging the bore machine for the push construction, backhoe machine(s), and pipe material staging.The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28157	8.9	2.8	Unnamed road	Y	Y	HDD Entry/Push Section
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for push: staging the bore machine for the push construction, backhoe machine(s), and pipe material staging. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28291	9.6	0.5	Unnamed wetland	Y	Y	Staging Area
						Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28166	10.0	0.8	Unnamed stream	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28440	10.9	0.4	Unnamed wetland	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. A large canal and Texas Prairie Wetland Program seasonal wetlands to the south, a wetland area to the west, wetlands and the Hillebrandt Unit of the J.D. Murphree Wildlife Management Area to the east, and the location of the HDD restricts the workspace to be placed in this area.
28441	10.9	0.2	Unnamed wetland	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. A large canal and Texas Prairie Wetland Program seasonal wetlands to the south, a wetland area to the west, wetlands and the Hillebrandt Unit of the J.D. Murphree Wildlife Management Area to the east, and the location of the HDD restricts the workspace to be placed in this area.
28294	11.3	0.3	Unnamed pond	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28158	11.6	0.7	Unnamed road	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.The location of the HDD in the area and a valve site for foreign pipelines restricts the HDD pad to be placed over the wetlands in the area.
28268	12.2	0.8	Unnamed canal/ditch	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28328	12.4	0.1	Unnamed canal/ditch	Y	Y	Canal/Road
						Additional staging area and equipment needs for water crossing. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28319	12.4	0.3	Unnamed canal/ditch	Y	Y	Canal/Road
						Additional staging area and equipment needs for water crossing. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28164	12.5	0.3	Unnamed stream	N	N	Canal/Road
						Additional staging area and equipment needs for water crossing. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28242	12.6	1.9	Unnamed canal/ditch	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The area of the location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
28320	12.6	1.2	Unnamed canal/ditch	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28329	12.7	0.2	Unnamed canal/ditch	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
31641	13.0	0.8	Unnamed road	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
31644	13.3	0.8	Unnamed stream	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28210	13.6	0.2	Unnamed road	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
28167	13.7	0.2	Unnamed road	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
28161	14.2	0.8	Gallier Canal	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28162	14.4	0.8	Gallier Canal	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28169	14.5	0.2	Gallier Canal	Y	Y	Foreign Pipeline

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28168	14.5	0.2	Gallier Canal	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28171	14.9	1.1	Unnamed canal	Y	Y	Road/Foreign Pipeline/PI
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and canals in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.
28172	15.0	0.1	Unnamed canal	N	N	Canal
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28173	15.1	0.2	Unnamed canal	N	N	Canal
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28174	15.2	0.3	Knauth Road	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
28170	15.3	0.1	Knauth Road	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28177	15.3	0.1	Knauth Road	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28178	15.4	0.2	Unnamed canal/ditch	N	N	Canal
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28179	15.4	0.2	Unnamed canal/ditch	N	N	Canal
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28238	15.6	0.1	Hebert Rd	N	N	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28237	15.6	0.1	Hebert Rd	N	N	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28175	15.7	0.1	Hebert Rd	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28176	15.7	0.1	Hebert Rd	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28269	16.2	0.3	Unnamed wetland	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28270	16.4	0.3	Unnamed wetland	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28181	16.6	0.2	Unnamed wetland	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28182	16.7	0.3	Unnamed wetland	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign line crossing and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28330	16.9	0.2	Unnamed stream	Y	Y	Canal/Foreign Pipeline
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28321	16.9	0.5	Unnamed stream	Y	Y	Canal/Foreign Pipeline
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28180	16.9	0.4	Unnamed stream	N	Y	Canal/FPL
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28184	17.1	0.1	Hebert Road	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28183	17.2	0.3	Hebert Road	N	N	Road/Foreign Pipeline
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28331	17.2	0.1	Unnamed road	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign line crossing and wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
28196	17.3	0.3	Unnamed road	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28187	17.3	0.1		N	N	Road

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
			Unnamed road			Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28186	17.3	0.2	Unnamed road	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28193	17.5	0.3	State Spur 93	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
28188	17.5	0.8	Unnamed road	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28262	18.1	0.3	Johns Gully	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28263	18.1	1.0	Johns Gully	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28257	18.1	2.0	Johns Gully	Y	Y	HDD Exit/Pull String
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. Additional staging area and equipment needs includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28264	18.2	0.3	Johns Gully	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28261	18.2	3.5	Johns Gully	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The wetland impacts here are unavoidable since the pull-string must be adjacent to the other pipeline ATWS.
28260	18.5	1.9	Johns Gully	Y	Y	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDDs and the foreign pipeline restricts the location of the ATWS. Therefore, the wetlands in this area are unavoidable.
28190	19.0	1.0	Unnamed wetland	N	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28323	19.1	0.3	Unnamed wetland	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and the multitude of wetlands in the surrounding area restrict the placement of this ATWS pad. Therefore, the wetland is unavoidable.
28194	19.4	0.2	Unnamed canal/ditch	Y	Y	Canal
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28185	19.4	2.6	Unnamed canal/ditch	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28195	19.4	0.3	Unnamed canal/ditch	Y	Y	Canal/PI
						Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28191	19.6	0.3	Unnamed stream	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28192	19.6	0.5	Unnamed stream	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28189	20.2	1.0	US Hwy 287	N	N	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28197	20.2	0.4	US Hwy 287	N	Y	HDD Entry/Exit
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for HDD exit: aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28251	20.8	1.5	State Hwy 347	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28252	20.9	0.4	State Hwy 347	N	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
28249	21.3	0.5	Neches River	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This and the construction conditions due to the industrial area makes wetland impacts unavoidable by any ATWS configuration in this location.
28325	21.4	1.7	Neches River	N	Y	Construction Conditions
						Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to land/owner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28250	21.6	0.2	Neches River	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28276	21.6	0.6	Neches River	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD in the area restrict the placement of the ATWS and make the wetland impact unavoidable.
28253	22.4	0.6	Neches River	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28254	22.4	0.2	Neches River	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28346	22.5	0.4	Neches River	Y	Y	Construction Conditions
						Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to land/owner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions. The entire surrounding area is wetlands. This and the construction conditions make wetland impacts unavoidable by any ATWS configuration in this location.
28258	22.8	3.8	Neches River	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the pipestring restrict the placement of this ATWS pad and makes wetland impacts unavoidable for this pull string.
28259	22.9	1.7	Neches River	N	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
28347	22.9	0.1	Neches River	Y	Y	Construction Conditions
						Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to land/owner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28255	23.0	0.5	Neches River	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28256	23.0	0.2	Neches River	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28207	23.7	1.8	Unnamed swamp	Y	Y	HDD Entry/Push
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for push: staging the bore machine for the push construction, backhoe machine(s), and pipe material staging. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28337	24.4	0.2	Unnamed wetland	Y	Y	Tie-In
						Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28313	24.6	0.8	Unnamed stream	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28217	25.2	0.8	Pipeline corridor	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28221	25.6	0.1	Anderson Gully	N	N	Bore Existing Utility Line
						Additional staging area and equipment needed for boring construction method include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28231	25.7	0.4	Church House Rd	N	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
28232	26.0	0.4	NA	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
31242	26.1	<0.1	Avoid Cemetery	N	N	Construction Conditions
						Additional staging area and equipment needs. Temporary workspace is necked down due to land/owner constraints; therefore, ATWS was added to compensate for restricted existing conditions.
31243	26.2	<0.1	Avoid Cemetery	N	N	Construction Conditions
						Additional staging area and equipment needs. Temporary workspace is necked down due to land/owner constraints; therefore, ATWS was added to compensate for restricted existing conditions.
28230	26.4	0.1	S Mansfield Ferry Rd	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28234	26.4	0.1	S Mansfield Ferry Rd	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area.
Southern Pipeline						
28318[a]	0.0	0.9	Unnamed canal/ditch	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28308[a]	0.1	<0.1	Unnamed canal/ditch	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28307[a]	0.1	<0.1		Y	Y	PI

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
			Unnamed canal/ditch			Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28306[a]	1.0	<0.1	Unnamed canal/ditch	Y	Y	PI/HDD Entry
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for HDD. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28305[a]	1.0	<0.1	Unnamed canal/ditch	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28304[a]	1.7	0.0	Port Arthur Canal	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28311[a]	2.1	0.0	Port Arthur Canal	Y	Y	Southern Pipeline Staging
						Additional spoil storage, timber mat storage, assembly of pipeline segment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28301[a]	2.2	0.1	Port Arthur Canal	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28302[a]	2.2	0.0	Port Arthur Canal	Y	Y	Southern Pipeline Staging
						Additional spoil storage, timber mat storage, assembly of pipeline segment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28842	2.6	0.4		Y	Y	HDD Exit

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
			Port Arthur Canal			Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28843	2.6	0.1	Port Arthur Canal	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28248	2.6	1.8	Port Arthur Canal	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28246	2.9	0.4	Port Arthur Canal	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28245	2.9	0.0	Port Arthur Canal	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28284	3.8	2.8	State Hwy 87	Y	Y	HDD Exit/ Push Section
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. Area needs also include staging the bore machine for the push construction, backhoe machine(s), and pipe material staging. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28278	5.0	0.2	Unnamed canal/ditch	Y	Y	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands: Within ATWS	Wetlands: Within 50 ft. of ATWS	Site-Specific Justification
28281	5.0	0.1	Unnamed canal/ditch	Y	Y	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28277	6.0	0.8	Sabine Pass	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28443	7.0	0.1	Sabine Pass	N	N	HDD Entry/Pull String
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for pull string: includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
29240	7.0	0.5	Sabine Pass	N	N	HDD Entry/Pull String
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for pull string: includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
28442	7.1	1.2	Sabine Pass	N	N	HDD Entry/Pull String
						Additional staging area and equipment needs for HDD entry: worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for pull string: includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
28215	7.1	0.7	Sabine Pass	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28214	7.5	0.8	Unnamed stream	Y	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
GTS/CIPCO Lateral						
28216	0.1	0.1	NA	N	N	PI

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
28271	0.2	0.3	Unnamed Wetland	N	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
28333	0.5	1.6	Amco Road	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28213	0.5	0.8	Amco Road	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
28222	0.8	0.8	Amco Road	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28226	0.8	0.2	Amco Road	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28223	1.1	0.2	Unnamed lake	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28224	1.1	0.5	Unnamed lake	N	N	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28225	1.1	1.7	Unnamed lake	N	N	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.
28218	1.2	0.2	Unnamed lake	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands: Within ATWS	Wetlands: Within 50 ft. of ATWS	Site-Specific Justification
28275	1.3	0.2	Unnamed lake	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
HPL Lateral						
28220	1.0	0.3	Anderson Gully	Y	Y	Pull String
						Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the pipestring restrict the placement of the ATWS and makes the wetland impact unavoidable.
TETCO Lateral						
28233	0.0	0.1	S Mansfield Ferry Rd	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area.
FGT Lateral						
28228	0.3	0.1	State Road 105	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
28340	0.6	0.2	Unnamed wetland	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipelines that are crossed in the area restricts the area of the ATWS in this location which makes the wetland impacts unavoidable.
28339	0.6	0.1	Unnamed wetland	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipelines that are crossed in the area restricts the area of the ATWS in this location which makes the wetland impacts unavoidable.
28341	0.6	0.2	Unnamed wetland	N	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
28342	0.6	0.2	Unnamed wetland	N	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
28343	0.7	0.0	Unnamed wetland	Y	Y	Foreign Pipeline
						Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipelines that are crossed in the area restricts the area of the ATWS in this location which makes the wetland impacts unavoidable.
28315	0.8	0.2	Unnamed stream	Y	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and foreign pipelines in the area restrict the location of the ATWS and make the wetland impacts unavoidable.
28266	0.8	0.5	Unnamed stream	N	Y	HDD Exit
						Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
28239	1.2	0.1	Unnamed stream	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
32047	1.2	0.1	Unnamed stream	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
32054	1.2	0.1	Unnamed stream	N	N	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28265	1.3	0.4	Unnamed stream	N	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28314	1.3	0.1	Unnamed stream	N	Y	HDD Entry
						Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
28235	1.6	0.3	Unnamed stream	N	N	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-1 (cont'd)

Additional Temporary Workspace for the Texas Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands: Within ATWS	Wetlands: Within 50 ft. of ATWS	Site-Specific Justification
28227	1.8	0.1	State Road 105	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area.
28229	1.8	0.1	State Road 105	N	N	Road
						Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area.
NGPL Lateral						
28240	0.1	0.4	State Hwy 87	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
28219	0.1	0.2	State Hwy 87	Y	Y	PI
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
KMLP Lateral						
28267	0.1	0.5	Unnamed stream	Y	Y	PI/Foreign Pipeline
						Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

[a] ATWS is partially or completely within the Liquefaction Facility boundary, so affected acreage only represents ATWS occurring outside the facility boundary.

ADDITIONAL TEMPORARY WORKSPACE FOR THE LOUISIANA CONNECTOR PROJECT

APPENDIX D-2

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-JEF-001	0.0	0.1	Hwy 87/Pt Arthur Canal/Levee Rd	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment and parking. Pipeline initiation point is surrounded by wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-JEF-002	0.0	<0.1	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-JEF-003	0.1	<0.1	NA	N	N	Centana Tie-In Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area.
ATWS-JEF-006	1.0	24.8	NA	N	N	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area.
ATWS-CAM-003	18.0	0.2	AR-CAM-01	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-004	18.1	0.2	AR-CAM-01	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-005	18.1	<0.1	Sabine Lake	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-006	18.1	0.9	Sabine Lake	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAM-011	19.1	0.4	AR-CAM-01A	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, material staging, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-012	19.2	0.7	East Pass	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-013	19.6	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-014	20.4	0.3	AR-CAM-02	Y	Y	Access Road to Workspace Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-015	20.4	0.2	AR-CAM-02	Y	Y	Access Road to Workspace Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-016	20.4	0.2	AR-CAM-02	Y	Y	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-018	20.5	0.2	AR-CAM-02	Y	Y	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAM-020	20.8	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-023	21.9	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-024	22.2	0.1	Targa (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-025	22.2	0.1	Targa (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-026	22.3	0.1	Targa (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-027	22.3	0.1	Targa (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-029	22.6	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-030	23.5	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAM-031	24.2	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-032	24.9	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-033	25.7	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. Location is critical to allowing vehicles and equipment to turn around or pass on the working side of the ROW near the access road. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAM-034	25.7	0.9	NA	N	N	Access Road to Workspace Work Area Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAM-037	26.1	0.4	AR-CAM-03B	Y	Y	Access Road to Workspace Work Area Additional staging area and equipment needs including parking and equipment turn-around area. Location was selected in an existing, cleared ROW and existing access route from the Intercoastal Waterway to avoid vegetation clearing. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAM-039	26.2	0.4	NA	Y	Y	Point of Intersection (PI) Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. This location will also be used to stage material and equipment for the push/pull installation method. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-001	26.4	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-002	26.4	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-004	26.5	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-006	26.5	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAM-041	26.5	0.7	Foreign Pipelines	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAM-042	26.7	0.2	AR-CAM-03C	Y	Y	Access Road Turnaround Additional staging area and equipment needs including parking and equipment turn-around area as well as material staging to construct the access road to the West. Site was selected to utilize existing raised berm and road. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-007	26.9	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-008	27.0	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-010	27.2	0.5	Foreign Pipelines	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-011	27.2	0.5	Foreign Pipelines	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-013	27.4	0.4	Intracoastal Waterway	Y	Y	HDD Entry Additional staging area and equipment needs for HDD entry and at end of access road. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-014	27.5	0.5	Intracoastal Waterway	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-015	27.5	<0.1	Intracoastal Waterway	Y	Y	HDD Entry Additional staging area and equipment needs for HDD entry and at end of access road. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-016	27.5	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-017	27.6	0.2	NA	N	N	Work Area from Water Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-021	28.3	0.2	AR-CAL-01B	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. Location was selected for shortest path between HDD exit and Intercoastal Waterway to reduce vegetation clearing and wetland impacts. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-022	28.3	0.2	AR-CAL-01B	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. Location was selected for shortest path between HDD exit and Intercoastal Waterway to reduce vegetation clearing and wetland impacts. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-023	28.4	0.2	Intracoastal Waterway	Y	Y	HDD Exit/PI Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area, it is unavoidable for the location of the ATWS pad to not impact wetlands.
ATWS-CAL-024	28.4	0.4	Intracoastal Waterway	Y	Y	HDD Exit/PI Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area it is unavoidable for the location of the ATWS pad to not impact wetlands.
ATWS-CAL-025	28.4	0.1	Intracoastal Waterway	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area it is unavoidable for the location of the ATWS pad to not impact wetlands.
ATWS-CAL-026	28.4	7.8	Intracoastal Waterway	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-CAL-027	28.7	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-028	29.5	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-029	30.0	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-031	30.6	0.6	Vinton Drainage Canal	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. Due to the multitude of wetlands in the area it is unavoidable for the location of the ATWS pad to not impact wetlands.
ATWS-CAL-033	30.8	0.6	AR-CAL-02A	Y	Y	Boat Access Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-036	30.8	0.6	AR-CAL-03	Y	Y	Boat Access Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-037	30.9	1.0	Vinton Drainage Canal	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. Additional staging and area for equipment is required for the installation of MLV #2. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-038	31.5	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-039	32.3	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-040	32.9	0.1	NA	N	N	Boat Access Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-041	32.9	0.2	AR-CAL-04	N	Y	Access Road Additional staging area and equipment needs including parking, materials, and equipment turn-around area. Location was selected in an existing, cleared ROW to reduce tree clearing. The additional area is also required to assist stringing trucks going around the 90° turn in access road AR-CAL-04. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAL-043	32.9	0.2	AR-CAL-04	N	Y	Access Road Additional staging area and equipment needs including parking, materials, and equipment turn-around area. Location was selected in an existing, cleared ROW to reduce tree clearing. The additional area is also required to assist stringing trucks going around the 90° turn in access road AR-CAL-04. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAL-044	32.9	0.1	NA	N	N	Boat Access Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-045	32.9	0.1	NA	N	N	Boat Access Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section.
ATWS-CAL-046	33.0	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-047	33.7	0.6	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-048	34.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-050	34.8	0.2	AR-CAL-05	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. This location was selected to utilize existing road and dock to reduce clearing and the need for a new dock. The surrounding area is mostly wetlands. This makes wetland impacts nearly unavoidable by any ATWS configuration in this location.
ATWS-CAL-051	34.8	0.2	AR-CAL-05	Y	Y	Work Area from Water Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. This location was selected to utilize existing road and dock to reduce clearing and the need for a new dock. The surrounding area is mostly wetlands. This makes wetland impacts nearly unavoidable by any ATWS configuration in this location.
ATWS-CAL-052	35.0	0.2	Gum Cove Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road, powerline, and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAL-053	35.1	0.3	Gum Cove Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road, powerline, and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.
ATWS-CAL-054	35.5	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The pad is located outside the wetlands but is surrounded by wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-055	35.8	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, spoil storage, and temporary bypass equipment. The pad is located to abut the road ROW. Moving farther away would reduce the benefit for nearby spoil storage for the road crossing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-056	35.8	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, spoil storage, and temporary bypass equipment. The pad is located to abut the road ROW. Moving farther away would reduce the benefit for nearby spoil storage for the road crossing.
ATWS-CAL-058	36.3	0.6	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-059	36.4	0.7	CAL-WB-014	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-060	36.5	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-061	36.5	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-062	36.6	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-063	36.7	0.1	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-064	36.7	0.1	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-065	36.8	0.5	NA	Y	Y	PI / Turnaround Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-067	36.9	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-068	37.4	0.1	CAL-WB-015	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-069	37.4	0.2	CAL-WB-015	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-071	37.5	0.2	CAL-WB-016	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-073	37.6	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-074	37.7	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-075	38.5	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-076	38.5	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-078	38.6	1.1	Waterbodies	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-079	39.2	0.7	Waterbodies	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and surrounding wetlands restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-081	39.5	0.7	CAL-WB-023	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-082	39.8	0.7	CAL-WB-023	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-083	39.9	0.2	Unnamed Road	Y	Y	Road Open Cut Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location is limited to the north side of the pipeline ROW due to foreign pipelines. Wetlands are all around the proposed ATWS pad. This makes wetland impacts unavoidable.
ATWS-CAL-084	39.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-086	40.2	0.6	Waterbody / Unnamed Road	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD, foreign pipeline to the south, and multiple wetlands in the area restrict the location of the ATWS pad.
ATWS-CAL-089	40.5	0.2	Waterbody / Unnamed Road	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-090	40.6	0.7	Waterbody / Unnamed Road	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-091	40.6	0.1	Charlie Moss Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.
ATWS-CAL-092	40.7	0.2	Charlie Moss Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-093	40.8	0.2	Charlie Moss Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.
ATWS-CAL-094	40.8	0.4	Charlie Moss Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.
ATWS-CAL-095	40.9	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-096	41.0	0.3	Equistar	N	Y	PI Additional staging area and equipment needs for multiple PIs which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PIs, and extra track hoe requirements. ATWS pad is located between foreign pipelines and wetland on the south side of the ROW. The north side of the ROW is restricted by multiple residences making the wetland impact unavoidable.
ATWS-CAL-097	41.1	0.2	Choupique Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. ATWS pad is located between on the north side of the ROW. The south side of the ROW is restricted by foreign pipelines and an existing above grade facility/valve site. Due to this restriction and the multiple wetlands and residences in the area, impacts to the wetland are unavoidable.
ATWS-CAL-098	41.1	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-099	41.2	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-100	41.5	0.1	Unnamed Road	N	Y	Road Open Cut Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.
ATWS-CAL-101	41.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-315	41.7	0.5	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-102	42.0	0.7	Choupique Bayou	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-103	42.5	0.5	Choupique Bayou	Y	Y	HDD Entry / Foreign Pipeline Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-104	42.5	0.6	Choupique Bayou	Y	Y	HDD Entry / Foreign Pipeline Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-105	42.6	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-106	42.6	0.2	Murl Ellender Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-107	42.7	0.3	Murl Ellender Rd	Y	Y	Road Bore / PI Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-108	43.0	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-109	43.1	0.5	CAL-WB-032	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The surrounding area includes a multitude of wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-110	43.2	0.5	CAL-WB-032	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-112	43.3	1.2	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-113	43.4	0.6	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-114	43.5	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-115	43.8	0.3	John Brannon Rd	Y	Y	PI / Road Bore Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.
ATWS-CAL-314	43.9	0.1	John Brannon Rd	N	Y	PI / Road Bore Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-116	43.9	0.6	John Brannon Rd	Y	Y	PI / Road Bore Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.
ATWS-CAL-119	44.2	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-120	44.4	0.3	NA	Y	Y	PI / Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-121	44.4	0.2	NA	Y	Y	PI / Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-122	44.5	0.2	State Route 108	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-124	44.6	0.2	State Route 108	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-125	44.6	0.2	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-126	44.7	0.2	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-127	44.8	0.2	CAL-WB-033	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-128	44.9	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-129	44.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-130	45.1	0.2	Augie Lyons Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-131	45.5	0.9	W Cotton Vincent Rd	Y	Y	Road Bore Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-133	45.6	0.1	W Cotton Vincent Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-134	45.7	0.1	NA	N	Y	Waterbody / Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The location was selected near the transition to TWS neckdown area for vehicle/equipment to be able to pass on the working side and assist with an open cut water crossing. Additional area includes parallel foreign pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-135	45.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-136	45.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-137	46.0	0.1	CITGO	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. ATWS pad location was restricted to the east side due to the paralleling foreign pipeline on the west side. Moving the ATWS further to the south would hinder its ability to aid in construction as the distance from the foreign pipeline would be too far to transfer spoil.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-138	46.0	<0.1	CITGO	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. ATWS pad location was restricted to the east side due to the paralleling foreign pipeline on the west side. Moving the ATWS further to the south would hinder its ability to aid in construction as the distance from the foreign pipeline would be too far to transfer spoil.
ATWS-CAL-139	46.1	0.2	CITGO	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-140	46.1	0.1	DOW	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-142	46.2	0.1	Phillips 66	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-143	46.3	0.3	Phillips 66	Y	Y	Foreign Pipeline / PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-144	46.4	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-141	46.4	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-145	46.5	0.4	CenterPoint	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-147	46.6	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-148	46.6	0.3	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-149	46.8	0.5	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-150	47.1	0.6	Creole Trail/ Sempra/Phillips 66/Targa/CITGO	Y	Y	PI / Bore / Foreign Pipeline Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-151	47.1	0.1	Creole Trail/ Sempra/Phillips 66/Targa	Y	Y	PI / Bore / Foreign Pipeline Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-152	47.1	0.1	CITGO	Y	Y	Turnaround / Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs including parking and equipment turn-around area. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-153	47.2	0.2	Creole Trail/ Sempra/Phillips 66/Targa/CITGO	Y	Y	PI / Bore / Foreign Pipeline Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-154	47.2	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-155	47.5	1.9	Walker Rd	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. In addition, the area is surrounded with a multitude of wetlands. The wetland impact is unavoidable.
ATWS-CAL-156	47.5	0.3	Walker Rd	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-157	47.5	0.4	Walker Rd	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-159	47.9	1.1	Walker Rd	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-CAL-160	48.2	1.4	Foreign Pipeline	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-CAL-162	48.2	0.7	Foreign Pipeline	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-163	48.5	0.5	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-164	48.5	0.6	Foreign Pipeline	Y	Y	HDD Entry/PI Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-316	48.6	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-165	48.6	0.1	NA	N	N	Road Bore/Turnaround Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, equipment turn-around area, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-166	48.6	0.1	Currie Dr	N	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-167	48.6	0.1	Currie Dr	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-168	48.6	0.1	Currie Dr	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-327	48.9	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-169	49.4	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-170	49.8	0.6	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-172	49.9	0.1	PetroLogistics / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-173	50.0	1.0	Interstate Hwy 10	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-174	50.3	0.6	Interstate Hwy 10	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-175	50.3	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-176	50.4	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-177	50.5	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-181	51.3	0.1	US Hwy 90 / W Napoleon St	N	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-182	51.3	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-183	51.3	0.1	US Hwy 90 / W Napoleon St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-184	51.3	0.1	US Hwy 90 / W Napoleon St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-186	51.5	0.4	Creole Trail / Sempra (42" CIP)	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-185	51.5	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-187	51.6	0.1	Creole Trail/Sempra / PetroLogistics(2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-188	51.6	<0.1	Creole Trail/Sempra / PetroLogistics(2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-189	51.6	0.1	PetroLogistics (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-190	51.6	0.1	PetroLogistics (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-191	51.7	0.1	Kim St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-192	51.7	0.1	Kim St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-193	51.8	0.1	Kim St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-194	51.8	0.1	Kim St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-320	51.8	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-197	51.9	0.2	Union Pacific RR	Y	Y	Railroad Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the railroad and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-198	52.1	0.2	W Burton St	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-199	52.2	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-200	52.3	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-201	52.4	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-202	52.5	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-203	52.5	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-204	52.6	0.1	PetroLogistics / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-205	52.6	0.1	PetroLogistics / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-206	52.7	0.1	PetroLogistics / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-207	52.7	0.1	PetroLogistics / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-209	53.0	0.2	UCAR	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-208	53.0	0.2	UCAR	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-210	53.1	0.1	UCAR	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-211	53.1	0.1	UCAR	Y	Y	Foreign Pipeline / Open Cut Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-CAL-212	53.1	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-325	53.2	0.2	CAL-WB-052	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-326	53.2	0.2	CAL-WB-052	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-214	53.4	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-213	53.4	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-215	53.8	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-216	53.9	<0.1	CAL-WB-042	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-217	54.0	0.1	CAL-WB-042	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-328	54.1	0.3	CAL-WB-042	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-218	54.2	0.1	Bluegrass / Dixie	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-219	54.2	0.1	Bluegrass / Dixie	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-220	54.4	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-222	54.5	0.5	Houston River Canal	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-221	54.6	0.8	Houston River Canal	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-223	54.8	0.4	Houston River Canal	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-224	54.8	0.2	Houston River Canal	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-225	54.9	1.3	Houston River Canal	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-CAL-226	54.9	0.1	Houston River Canal	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-227	55.1	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-229	55.2	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-228	55.2	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-230	55.3	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-231	55.4	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-232	55.5	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-CAL-233	55.8	0.2	CAL-WB-048	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-234	55.8	0.2	CAL-WB-048	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-235	56.1	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-236	56.3	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-239	56.5	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-238	56.5	0.4	NA	N	N	Bore Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, testing equipment and pipe string, and travel lanes for other equipment.
ATWS-CAL-240	56.5	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-317	56.6	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-242	56.7	0.2	Houston River	Y	Y	HDD Entry / PI Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-243	56.7	<0.1	Houston River	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-244	57.4	0.7	NA	N	N	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
ATWS-CAL-245	57.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-247	57.8	1.1	NA	N	N	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area.
ATWS-CAL-246	57.9	0.6	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-CAL-249	58.3	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-323	58.5	0.2	Unnamed Waterbody	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-324	58.6	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-252	58.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-253	59.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-254	59.1	0.2	NA	N	N	Road/Foreign Pipeline Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-255	59.1	0.1	Bluegrass	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-256	59.6	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-257	59.7	0.6	State Route 27 / Bankens Rd / Unnamed Rr	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-258	59.7	0.2	State Route 27 / Bankens Rd / Unnamed Rr	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-319	60.0	1.5	Bankens Rd / Kansas City Southern Rr	Y	Y	Slope Equipment Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-CAL-318	60.1	0.4	NA	Y	Y	Slope Equipment Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-CAL-259	60.3	0.2	State Route 27 / Bankens Rd / Unnamed Road	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-260	60.3	0.9	State Route 27 / Bankens Rd / Unnamed Rr	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-261	60.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-262	60.5	1.0	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-CAL-263	60.8	0.7	Little River	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-264	60.9	0.3	NA	N	N	Foreign Pipeline/Waterbody Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment.
ATWS-CAL-265	61.0	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-267	61.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-268	61.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-269	61.6	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-271	61.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-272	61.9	0.2	CAL-WB-053	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-273	62.0	0.1	CAL-WB-053	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-274	62.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-275	62.7	0.2	CAL-WB-054	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-276	62.8	0.2	CAL-WB-054	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-277	63.0	0.2	Holbrook Park Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-279	63.0	0.2	Holbrook Park Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-280	63.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-283	63.8	<0.1	Beckwith Creek	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-284	63.8	0.9	Beckwith Creek	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-285	64.5	0.7	NA	N	N	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.
ATWS-CAL-286	64.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-287	64.7	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-288	64.7	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-CAL-289	64.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-290	65.0	1.0	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-CAL-292	65.4	0.7	NA	N	N	HDD Exit

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-293	65.5	0.2	CAL-WB-061	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-294	65.6	0.2	CAL-WB-061	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-296	65.8	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-297	66.0	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-298	66.1	0.1	NA	N	N	Road/Foreign Pipeline Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-299	66.1	0.5	Creole Trail / Unnamed Road	N	Y	Foreign Pipeline / PI / Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-300	66.1	<0.1	Creole Trail / Unnamed Road	Y	Y	Foreign Pipeline / PI / Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.
ATWS-CAL-301	66.1	0.2	Creole Trail / Unnamed Road	N	Y	Foreign Pipeline / PI / Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.
ATWS-CAL-302	66.1	<0.1	Creole Trail / Unnamed Road	Y	Y	Foreign Pipeline / PI / Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.
ATWS-CAL-304	66.2	0.1	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-305	66.2	0.1	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-CAL-307	66.3	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-CAL-308	66.4	0.1	Gulf South	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-309	66.4	<0.1	Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-CAL-310	66.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-CAL-311	66.6	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-CAL-312	66.8	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-CAL-313	66.9	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-001	67.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-003	67.9	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-BEA-004	67.9	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-BEA-006	68.0	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-BEA-008	68.0	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-BEA-009	68.0	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-010	68.2	0.1	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-011	68.2	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-012	68.4	0.3	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-BEA-013	68.4	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-BEA-014	68.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-015	68.8	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-BEA-016	69.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-017	69.7	0.2	BEA-WB-009	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-018	69.8	0.2	BEA-WB-009	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-020	69.9	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-021	69.9	0.1	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-BEA-022	69.9	0.2	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-BEA-023	70.0	0.2	NA	N	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-024	70.0	0.1	NA	N	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-025	70.1	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-026	70.3	0.1	Creole Trail	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-027	70.4	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-028	70.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-029	70.5	0.5	US Hwy 171	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-030	70.5	0.2	US Hwy 171	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-031	70.7	0.5	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-BEA-032	70.8	0.1	Targa	Y	Y	Foreign Pipeline / PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, Foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-033	70.8	0.1	Targa	Y	Y	Foreign Pipeline / PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, Foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-034	70.9	0.3	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-035	71.0	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-BEA-036	71.1	0.2	BEA-WB-014	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-037	71.1	0.2	BEA-WB-014	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-038	71.2	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-039	71.2	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-040	71.4	0.3	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-041	71.5	0.2	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-042	71.8	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-043	72.2	0.3	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-044	72.3	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-046	72.3	<0.1	NA	N	N	Bore Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, testing equipment and pipe string, and travel lanes for other equipment.
ATWS-BEA-048	72.4	0.3	NA	N	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-051	72.6	0.4	NA	N	N	PI/Road Bore Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-BEA-052	72.6	0.2	NA	N	N	Road Bore/Foreign Pipeline Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-053	72.7	0.3	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-054	72.7	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-055	72.7	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-056	72.8	<0.1	Targa	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-057	72.8	0.2	Targa	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-058	72.8	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-059	73.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-060	73.2	0.2	BEA-WB-017	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-BEA-061	73.3	0.2	BEA-WB-017	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-BEA-062	73.6	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-BEA-063	73.6	0.2	BEA-WB-018	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-BEA-064	73.9	0.5	NA	N	N	Access Road to Workspace Work Area Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-066	74.1	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-BEA-067	74.1	0.1	BEA-WL-038, BEA-WL-039	N	Y	Wetland Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-BEA-068	74.2	0.1	BEA-WL-039, BEA-WL-040	N	Y	Wetland Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-070	74.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-071	75.1	0.1	Gulf South	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-072	75.1	<0.1	NA	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-073	75.1	0.2	Gulf South	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and paralleling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-074	75.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-BEA-075	76.0	0.1	Trunkline (3)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-076	76.0	0.1	Trunkline (3)	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-077	76.0	<0.1	NA	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-078	76.1	<0.1	NA	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-079	76.1	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-080	76.1	0.1	Trunkline (3)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-BEA-082	76.4	0.2	NA	N	N	Road Bore/Foreign Pipeline/Turnaround Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, equipment turn-around area, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-081	76.4	0.1	NA	N	N	Road Bore/Turnaround Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, equipment turn-around area, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-BEA-083	76.4	0.1	NA	N	N	Road Bore/Foreign Pipeline Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-086	76.5	0.1	Starks Header	Y	Y	Foreign Pipeline / PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-085	76.5	0.1	Parish Rd 152 / Texas Eastern Rd	Y	Y	Road Bore / PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-087	76.6	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-089	76.6	0.1	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-BEA-088	76.6	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-BEA-090	76.7	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-BEA-091	76.7	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-BEA-092	77.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-001	77.6	0.3	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-002	77.8	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-004	78.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-230	78.7	<0.1	Barnes Creek HDD	N	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-005	78.7	0.7	Barnes Creek HDD	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-006	79.4	1.1	Barnes Creek HDD	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Moving the ATWS would reduce the benefit for nearby spoil storage for the road crossing.
ATWS-ALL-007	79.5	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-008	79.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-009	79.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-010	80.1	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-011	80.3	0.5	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-012	80.3	0.2	NA	N	N	Road/PI/Foreign Pipeline Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-014	80.4	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-ALL-015	81.3	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-224	81.5	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-226	81.6	<0.1	TETCO (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-ALL-016	81.6	0.1	TETCO (2)	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-ALL-017	81.7	0.1	TETCO (2)	Y	Y	Foreign Pipeline / Turnaround Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional staging area, equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-ALL-019	82.1	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Moving the would reduce the benefit for nearby spoil storage for the road crossing.
ATWS-ALL-018	82.1	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Moving the ATWS would reduce the benefit for nearby spoil storage for the road crossing.
ATWS-ALL-021	82.1	0.1	ALL-WB-004	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-ALL-022	82.2	0.2	ALL-WB-004	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-025	82.3	0.2	ALL-WB-006	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable
ATWS-ALL-026	82.4	0.2	ALL-WB-006	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing.
ATWS-ALL-027	82.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-028	82.4	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-029	82.5	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-030	82.6	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-ALL-031	83.0	0.5	NA	N	N	PI/Road Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
ATWS-ALL-032	83.1	0.5	NA	N	N	PI/Road Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-034	83.2	0.3	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-035	83.3	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-036	83.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-038	84.6	0.4	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-ALL-229	84.8	0.1	Unnamed Waterbody	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-ALL-039	84.8	<0.1	ALL-WB-008	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-040	84.9	0.2	ALL-WB-008	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-041	85.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-042	85.8	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-043	85.8	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-044	85.8	0.1	Snooky's Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-045	85.8	0.1	Snooky's Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-046	86.1	<0.1	Getter Parker Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-047	86.1	0.2	Geeter Parker Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-048	86.2	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-049	86.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-050	86.3	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-051	86.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-052	87.1	0.1	ALL-WB-010	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-053	87.2	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-054	87.3	0.5	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-055	87.4	0.5	Unnamed RR / US Hwy 190	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-056	87.5	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-057	87.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-058	88.1	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-059	88.2	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-060	88.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-233	89.1	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-061	89.3	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-062	89.4	0.2	Methodist Camp Rd	N	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-063	89.5	0.2	Methodist Camp Rd	N	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-064	89.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-065	90.0	0.3	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-067	90.6	<0.1	Shorty Rawlings Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-068	90.6	0.2	Shorty Rawlings Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-069	90.7	0.2	Shorty Rawlings Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-071	90.8	0.5	NA	N	N	PI/Road Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.
ATWS-ALL-073	90.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-074	90.9	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-075	91.1	1.1	Whisky Chitto Creek	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-076	91.3	0.7	Whisky Chitto Creek	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-077	91.3	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-078	91.4	0.3	Whisky Chitto Creek	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-ALL-079	91.5	0.4	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-080	91.5	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-081	92.0	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-082	92.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-083	92.6	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-084	92.6	0.2	Carpenters Bridge Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-085	92.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-086	93.1	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-087	93.2	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-088	93.3	0.1	Tennessee Gas	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-ALL-089	93.3	0.1	Tennessee Gas	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-090	93.5	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-091	93.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-092	93.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-093	94.2	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-094	94.5	0.7	Calcasieu River	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-095	94.7	1.0	Calcasieu River	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-096	94.8	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI, foreign pipeline crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-098	94.8	0.4	TETCO (2)	N	Y	Foreign Pipeline / PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, foreign pipeline crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-099	95.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-100	95.3	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-101	95.3	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-102	95.7	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-103	95.7	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-105	96.0	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-108	96.1	0.1	ALL-WB-018	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-109	96.2	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-110	96.4	0.2	Unnamed Road	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-111	96.5	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-112	96.6	1.1	US Hwy 165 / Unnamed RR	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-ALL-113	96.6	0.3	Gulf South	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-114	96.7	0.5	US Hwy 165 / Unnamed RR	N	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-115	97.0	0.9	US Hwy 165 / Unnamed RR	N	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-116	97.0	<0.1	US Hwy 165 / Unnamed RR	N	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-117	97.0	<0.1	Botley Cemetery Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Existing structures and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-118	97.0	0.2	Botley Cemetery Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Existing structures and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-222	97.1	0.1	ALL-WB-024	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-119	97.1	0.2	ALL-WB-024	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-223	97.1	0.1	ALL-WB-024	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-120	97.1	0.2	ALL-WB-024	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-227	97.3	0.2	NA	N	N	Wetland Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment.
ATWS-ALL-228	97.6	0.2	Botley Cemetery Rd	N	Y	Wetland Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-ALL-121	97.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-122	97.7	0.1	Botley Cemetery Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-ALL-123	97.8	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-124	97.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-125	97.9	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-127	98.1	0.2	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-128	98.1	0.1	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-129	98.1	<0.1	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-130	98.2	<0.1	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-ALL-131	98.2	0.3	Tennessee Gas	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, foreign pipelines paralleling the Sempra pipeline and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-132	98.2	0.1	Tennessee Gas	Y	Y	PI / Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, foreign pipelines paralleling the Sempra pipeline and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-231	98.3	0.2	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-232	98.4	0.2	Unnamed Waterbody	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-133	98.6	0.1	NA	Y	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-134	99.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-135	99.3	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-136	99.4	0.2	ALL-WB-026	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-ALL-137	99.7	0.2	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-138	99.8	0.1	Parish Rd 4-190e / Lauderdale Woodyard Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-139	99.9	0.1	NA	N	Y	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-140	100.6	0.1	Left	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-141	100.6	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-142	100.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-143	100.7	0.1	ALL-WB-028	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-144	100.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-145	100.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-146	100.9	0.5	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-147	100.9	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-148	101.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-149	101.8	0.4	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-ALL-151	102.1	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-153	102.7	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-154	102.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-155	102.8	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-156	102.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-157	102.9	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-158	103.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-159	103.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-160	103.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-161	103.5	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-162	103.5	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-163	103.6	<0.1	LaFleur Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the road crossing and is restricted by foreign pipelines.
ATWS-ALL-164	103.6	0.1	LaFleur Rd	N	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the road crossing and is restricted by foreign pipelines.
ATWS-ALL-165	103.6	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-166	104.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-167	104.3	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-168	104.4	0.1	Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-171	104.4	0.1	Gulf South / Texas Gas	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-173	104.5	<0.1	Texas Gas / Gulf South	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-177	104.6	0.2	NA	N	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-178	104.7	0.1	ALL-WB-034	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-179	104.7	0.2	ALL-WB-034	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-180	104.7	0.1	ALL-WB-035	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-181	104.8	0.1	ALL-WB-035	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-182	104.9	0.1	Bel Oil Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-183	104.9	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-184	105.0	0.2	Bel Oil Rd	Y	Y	Road Bore / PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-185	105.0	0.1	NA	N	N	Road Bore/PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-ALL-186	105.1	0.3	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-187	105.1	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-188	105.3	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-189	105.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-190	106.0	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-193	106.0	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-194	106.5	<0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-195	106.5	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-196	106.6	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-197	107.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-198	107.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-200	107.1	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-201	107.1	0.1	ALL-WB-038	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-202	107.3	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-203	107.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-ALL-204	107.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-ALL-205	108.0	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-206	108.1	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-ALL-207	108.1	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-208	108.4	0.2	ALL-WB-043	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-209	108.5	0.2	ALL-WB-043	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-210	108.6	0.2	ALL-WB-044	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-211	108.7	0.2	ALL-WB-044	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-212	108.8	0.2	ALL-WB-045	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-213	108.8	0.2	ALL-WB-045	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-ALL-214	109.1	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-ALL-215	109.7	0.2	Nezpique Bayou	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-ALL-216	109.7	0.5	Nezpique Bayou	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-ALL-217	109.8	0.1	Nezpique Bayou	Y	Y	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.
ATWS-ALL-218	109.8	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-219	109.9	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-220	109.9	0.6	Nezpique Bayou	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-ALL-221	109.9	0.1	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-001	110.1	0.2	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-EVA-002	110.1	1.1	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-EVA-003	110.2	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-004	110.3	0.2	EVA-WB-002	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would reduce the benefit for nearby spoil storage for the waterbody crossing.
ATWS-EVA-005	110.3	0.6	NA	N	N	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.
ATWS-EVA-006	110.6	1.9	NA	N	N	HDD Pullback Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area.
ATWS-EVA-007	110.7	0.9	Pond	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-EVA-008	110.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-009	110.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-010	111.0	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-011	111.1	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-012	111.3	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-EVA-013	111.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-014	111.6	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-015	111.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-016	111.9	0.2	EVA-WB-005	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would reduce the benefit for nearby spoil storage for the waterbody crossing.
ATWS-EVA-017	111.9	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-018	112.2	0.2	Ruby Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-EVA-019	112.2	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-020	112.6	0.2	EVA-WB-006	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.
ATWS-EVA-021	112.7	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-022	112.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-EVA-023	113.4	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-025	113.5	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-024	113.5	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-072	113.6	0.1	NA	N	N	Proposed Egan Lateral Additional staging area and equipment needs for construction of lateral.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-073	113.6	0.1	NA	N	N	Proposed Egan Lateral Additional staging area and equipment needs for construction of lateral.
ATWS-EVA-074	113.6	0.1	NA	N	N	Proposed Egan Lateral Additional staging area and equipment needs for construction of lateral.
ATWS-EVA-027	113.7	0.1	NA	N	N	Egan Tie-In Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area.
ATWS-EVA-028	114.0	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-EVA-029	114.0	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-EVA-030	114.1	0.1	NA	N	N	Road Bore/PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-EVA-031	114.1	0.2	NA	N	N	Road Bore/PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-EVA-032	114.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-EVA-033	114.7	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-071	114.7	<0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-034	114.8	0.1	NA	N	N	Pine Prairie Tie-In Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area.
ATWS-EVA-035	114.8	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-070	114.8	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-036	114.8	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-037	114.9	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-038	115.0	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-EVA-039	115.6	0.2	Texas Gas	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-040	115.6	0.1	Texas Gas	N	Y	Texas Gas Tie-In Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area. The location of the tie-in and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-EVA-041	115.7	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-042	115.8	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-043	115.8	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-044	116.1	0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-045	116.1	0.1	NA	N	N	ANR Tie-Ins Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area.
ATWS-EVA-046	116.2	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-EVA-047	116.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-048	116.8	0.2	NA	N	N	Road Open Cut Additional staging area and equipment needs for open cut crossing.
ATWS-EVA-049	116.8	0.2	NA	N	N	Road Open Cut Additional staging area and equipment needs for open cut crossing.
ATWS-EVA-050	117.3	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-EVA-051	117.3	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-EVA-052	117.3	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-EVA-053	117.6	0.1	NA	N	N	Foreign Pipeline/Road Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-054	117.6	0.2	NA	N	N	Foreign Pipeline/Road Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-055	117.8	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-056	117.8	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-057	117.9	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-058	118.0	0.2	EVA-WB-010	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.
ATWS-EVA-059	118.2	0.1	Targa (2) / Phillips 66	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-EVA-060	118.3	0.2	Targa (2) / Phillips 66	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-EVA-061	118.4	0.2	EVA-WB-011	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.
ATWS-EVA-062	118.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-063	118.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-EVA-064	118.7	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-EVA-065	118.8	0.2	EVA-WB-012	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-EVA-067	118.8	<0.1	Phillips 66	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-EVA-068	118.8	0.1	Phillips 66	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-EVA-069	118.9	1.0	Des Cannes Bayou	Y	Y	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-STL-001	119.2	0.7	Des Cannes Bayou	Y	Y	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.
ATWS-STL-002	119.5	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-003	120.0	0.2	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-STL-004	120.1	<0.1	NA	N	N	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-STL-007	120.7	0.1	Lion Oil	N	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-STL-010	120.7	0.2	Lion Oil	Y	Y	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.
ATWS-STL-011	120.8	0.5	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-STL-012	120.8	0.3	TETCO (2)	N	Y	Foreign Pipeline / PI / Road Bore Additional staging area and equipment needs for Bore entry/exit and PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI,: personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, daylighting foreign pipeline spoil. Moving the ATWS farther away would reduce the benefit pipeline construction.
ATWS-STL-014	120.9	0.1	State Route 13	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the road crossing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-015	121.0	0.3	State Route 13	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the road crossing.
ATWS-STL-016	121.0	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-STL-017	121.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-018	121.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-019	121.7	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-020	121.7	0.1	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-021	121.8	0.1	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-082	121.8	<0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-022	121.8	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-023	121.8	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-STL-024	121.9	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-025	122.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-026	122.4	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-027	122.5	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-029	122.5	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.
ATWS-STL-030	122.6	0.4	NA	N	N	PI/Foreign Pipeline Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-031	123.4	0.2	Parish Rd 6-270 / Carl Loewer Rd	Y	Y	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. Moving the ATWS to the East is restricted by existing structures. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-033	123.5	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-034	123.7	0.3	NA	N	N	PI/Road Bore Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-035	123.8	0.7	NA	N	N	PI/Road Bore Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-036	124.2	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-STL-037	124.6	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-038	124.7	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-039	124.7	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-040	125.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-041	125.0	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-042	125.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-043	125.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-044	125.5	0.1	NA	N	N	Turnaround/Road/PI Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, equipment turn-around area, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-STL-045	125.6	0.3	NA	N	N	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.
ATWS-STL-046	125.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-047	125.8	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-048	125.9	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-049	126.0	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-050	126.1	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-052	126.5	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-053	126.6	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-055	127.1	0.2	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-056	127.4	0.2	STL-WB-010	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-057	127.5	0.5	State Route 95 / Etienne Rd	Y	Y	Road Bore / PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-058	127.6	0.6	State Route 95 / Etienne Rd	Y	Y	Road Bore / PI Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-060	128.1	0.5	STL-WB-011	Y	Y	Waterbody/PI Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-061	128.3	0.2	STL-WB-011	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-063	128.8	0.6	NA	Y	Y	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-064	129.0	0.1	STL-WB-015	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-065	129.0	0.1	STL-WB-016	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-066	129.1	0.2	STL-WB-016	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-067	129.4	0.1	NA	N	N	Turnaround Additional staging area and equipment needs including parking and equipment turn-around area.
ATWS-STL-068	129.5	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-069	129.6	0.2	NA	N	N	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-070	129.6	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-071	129.7	0.1	STL-WB-017	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-072	129.8	0.1	STL-WB-018	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.

APPENDIX D-2 (cont'd)

Additional Temporary Workspace for the Louisiana Connector Project

ATWS ID	Milepost	Affected Acreage	Feature Crossed	Wetlands		Site-Specific Justification
				Within ATWS	Within 50 ft. of ATWS	
ATWS-STL-073	129.9	0.2	STL-WB-018	Y	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-074	130.0	0.2	Parish Rd 6-105 / Belleau Rd	Y	Y	Road Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.
ATWS-STL-075	130.1	0.5	NA	N	N	Road/PI
ATWS-STL-077	130.3	0.1	NA	N	N	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing.
ATWS-STL-078	130.3	0.1	STL-WB-019	N	Y	Waterbody Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS to the North side would not assist with the waterbody crossing and is restricted by foreign pipelines.
ATWS-STL-079	130.6	0.2	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-080	130.6	0.3	NA	N	N	Road Bore Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.
ATWS-STL-081	130.8	0.1	NA	N	N	CGT Tie-Ins Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area.

APPENDIX E

PROPOSED ACCESS ROADS FOR THE TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS

PROPOSED ACCESS ROADS FOR THE TEXAS CONNECTOR PROJECT

APPENDIX E-1

Proposed Access Roads for the Texas Connector Project

Segment/Access Road Name	Milepost	Existing Land Uses	New/Existing	Temporary/ Permanent	Ownership	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
Southern Pipeline									
AR-S-1	0.1	Roads/Transportation	Partially Existing	Temporary	Private/State	4.1	0.0	0.9	Widen/Regrade
AR-S-2	2.2	Roads/Transportation	Existing	Temporary	Local/State	0.8	0.0	0.2	Widen/Regrade
AR-S-3	2.9	Roads/Transportation, Open Land	New	Temporary	Private	0.7	0.0	0.2	To be constructed
AR-S-4	3.6	Roads/Transportation	Existing	Temporary	Private	1.1	0.0	0.2	Widen/Regrade
AR-S-5	3.7	Roads/Transportation	New	Permanent	Private	0.0	0.2	<0.1	Widen/Regrade
AR-S-6	4.9	Roads/Transportation	Existing	Temporary	Private	1.3	0.0	0.3	Widen/Regrade
AR-S-7	7.2	Roads/Transportation	Existing	Temporary	Private	0.9	0.0	0.2	Widen/Regrade
AR-S-8	7.4	Roads/Transportation	Existing	Temporary	Private	0.8	0.0	0.2	Widen/Regrade
AR-S-9	7.6	Roads/Transportation	Existing	Temporary	Private	0.6	0.0	0.1	Widen/Regrade
AR-S-10	7.6	Roads/Transportation	Existing	Permanent	Private	0.0	1.2	0.2	Widen/Regrade
Southern Pipeline Subtotal						**10.3**	**1.3**	**2.4**	
Northern Pipeline									
AR-N-1	1.5	Roads/Transportation	Existing	Temporary	Private	4.5	0.0	0.9	Widen/Regrade
AR-N-2	6.0	Roads/Transportation	Existing	Temporary	Private/State	11.1	0.0	2.3	Widen/Regrade
AR-N-3	7.2	Roads/Transportation	Existing	Temporary	Private	5.2	0.0	1.1	Widen/Regrade
AR-N-4	7.9	Roads/Transportation	Existing	Temporary	Private	1.4	0.0	0.3	Widen/Regrade
AR-N-5	8.2	Roads/Transportation	Existing	Temporary	Private	0.3	0.0	0.1	Widen/Regrade
AR-N-6	9.6	Roads/Transportation	Existing	Temporary	Private/Local	6.0	0.0	1.3	Widen/Regrade
AR-N-7	9.6	Open Land, Wetland	New	Temporary	Private	0.1	0.0	<0.1	To be constructed
AR-N-8	11.3	Roads/Transportation	Existing	Temporary	Private	2.6	0.0	0.5	Widen/Regrade
AR-N-9	11.6	Roads/Transportation	Existing	Temporary	Private	0.3	0.0	0.1	Widen/Regrade
AR-N-10	12.4	Roads/Transportation	Existing	Temporary	Private	3.5	0.0	0.7	Widen/Regrade
AR-N-11	12.9	Roads/Transportation	Existing	Temporary	Private/Other	2.3	0.0	0.5	Widen/Regrade
AR-N-12	13.6	Roads/Transportation	Partially Existing	Temporary	Private/Other	8.0	0.0	1.6	Widen/Regrade
AR-N-13	14.2	Roads/Transportation	Existing	Temporary	Private/Other	0.9	0.0	0.2	Widen/Regrade
AR-N-14	14.8	Roads/Transportation	Existing	Temporary	Private/Other	1.4	0.0	0.3	Widen/Regrade
AR-N-15	15.7	Roads/Transportation	Existing	Temporary	Private	0.1	0.0	<0.1	Widen/Regrade
AR-N-16	17.3	Roads/Transportation	Existing	Temporary	Private	1.1	0.0	0.2	Widen/Regrade
AR-N-17	18.1	Open Land, Open Water	New	Temporary	Private	0.1	0.0	<0.1	To be constructed
AR-N-20	18.2	Roads/Transportation	Existing	Temporary	Private	8.5	0.0	1.8	Widen/Regrade
AR-N-18	18.8	Roads/Transportation	Existing	Temporary	Private	2.3	0.0	0.5	Widen/Regrade

APPENDIX E-1 (cont'd)

Proposed Access Roads for the Texas Connector Project

Segment/Access Road Name	Milepost	Existing Land Uses	New/Existing	Temporary/ Permanent	Ownership	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
AR-N-19	19.3	Roads/Transportation	Existing	Temporary	Private	4.1	0.0	0.9	Widen/Regrade
AR-N-21	19.6	Roads/Transportation	Partially Existing	Temporary	Private	1.9	0.0	0.4	Widen/Regrade
AR-N-22	20.2	Forest/Woodland, Open Land	New	Permanent	Private	0.0	0.3	0.1	To be constructed
AR-N-28	20.8	Roads/Transportation	Partially Existing	Temporary	Private	0.9	0.0	0.2	Widen/Regrade
AR-N-23	21.5	Roads/Transportation	Existing	Temporary	Private	4.3	0.0	0.9	Widen/Regrade
AR-N-24	22.4	Roads/Transportation	Existing	Temporary	Private	8.6	0.0	1.8	Widen/Regrade
AR-N-25	23.6	Roads/Transportation	Existing	Temporary	Private	8.9	0.0	1.8	Widen/Regrade
AR-N-26	23.7	Roads/Transportation	Partially Existing	Temporary	Private	0.7	0.0	0.2	Widen/Regrade
AR-N-27	25.2	Roads/Transportation	Existing	Temporary	Private	3.1	0.0	0.7	Widen/Regrade
AR-N-29	25.7	Forest/Woodland, Open Land	New	Permanent	Private	0.3	0.3	0.1	To be constructed
Northern Pipeline Subtotal						**92.3**	**0.5**	**19.2**	
Laterals									
GTS Lateral									
AR-GTS-1	0.5	Roads/Transportation	Partially Existing	Temporary	Private	0.8	0.0	0.2	Widen/Regrade
AR-GTS-2	1.3	Roads/Transportation	Partially Existing	Permanent	Private/Unknown	1.0	1.0	0.2	Widen/Regrade
FGT Lateral									
AR-FGT-1	0.8	Roads/Transportation	Existing	Temporary	Private	0.8	0.0	0.2	Widen/Regrade
AR-FGT-2	1.2	Roads/Transportation	Existing	Temporary	Private	0.9	0.0	0.2	Widen/Regrade
AR-FGT-3 [a]	1.8	Forest/Woodland, Open Land	New	Permanent	Private	0.0	0.0	0.1	To be constructed
HPL Lateral									
AR-HPL-1	1.0	Roads/Transportation	Existing	Temporary	Private	0.5	0.5	0.1	Widen/Regrade
NGPL Lateral									
AR-NGPL-1	0.2	Open Land, Roads/Transportation, Open Water	New	Temporary	Private	0.1	0.0	<0.1	To be constructed
TETCO Lateral									
AR-TETCO-1	0.1	Roads/Transportation	Existing	Permanent	Private	0.7	0.7	0.2	Widen/Regrade
Laterals Subtotal						**4.8**	**2.2**	**1.0**	
Access Road Totals						**107.4**	**4.1**	**22.7**	

[a] AR-FGT-3 is located inside the permanent right-of-way.

Note: Addends may not sum due to rounding.

PROPOSED ACCESS ROADS FOR THE LOUISIANA CONNECTOR PROJECT

APPENDIX E-2

Proposed Access Roads for the Louisiana Connector Project

Segment/Access Road Name	Milepost	Existing Surface	Status of Improvement/Type [a]	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
WR-JEF-07	0.3	Water	NA	0.0	0.0	11.5	NA
WR-JEF-01	12.8	Water	NA	0.0	0.0	3.2	NA
WR-CAM-02A	17.5	Water	NA	0.0	0.0	0.6	NA
AR-CAM-01	18.1	New	Temporary Improvements/ Restored	0.7	0.0	0.1	Grade, Widen, Gravel
WR-CAM-07	19.0	Water	NA	0.0	0.0	0.3	NA
WR-CAM-01	19.0	Water	NA	0.0	0.0	2.5	NA
AR-CAM-01A	19.2	New	Temporary Improvements/ Restored	0.7	0.0	0.1	Grade, Widen, Gravel
AR-CAM-02	20.3	New	Temporary Improvements/ Restored	1.5	0.0	0.3	Grade, Widen, Gravel
WR-CAM-03	20.5	Water	NA	0.0	0.0	0.1	NA
WR-CAM-02	22.3	Water	NA	0.0	0.0	1.0	NA
WR-CAM-02	22.3	Water	NA	0.0	0.0	3.9	NA
AR-CAM-03A	25.7	New	Temporary Improvements/ Restored	5.1	0.0	1.1	Grade, Widen, Gravel
AR-CAM-03B	26.1	Dirt	No Improvements/ Temporary Use	1.2	0.0	0.8	NA
AR-CAM-03B	26.1	Dirt	Temporary Improvements/ Restored	0.2	0.0	0.0	Grade, Widen, Gravel
WR-CAL-01	26.4	Water	NA	0.0	0.0	0.1	NA
AR-CAM-03C	26.5	Dirt	No Improvements/ Temporary Use	0.7	0.0	0.5	NA
AR-CAM-03C	26.5	New	Permanently Improved	1.0	1.0	0.2	Grade, Widen, Gravel
WR-CAL-02	26.5	Water	NA	0.0	0.0	0.1	NA
WR-CAL-03	27.0	Water	NA	0.0	0.0	0.1	NA
AR-CAL-01A	27.5	New	Permanently Improved	1.0	1.0	0.2	Grade, Widen, Gravel
WR-CAL-04	27.5	Water	NA	0.0	0.0	0.1	NA
WR-CAM-04	27.9	Water	NA	0.0	0.0	17.7	NA
WR-CAL-05	28.2	Water	NA	0.0	0.0	0.2	NA
AR-CAL-01B	28.4	New	Temporary Improvements/ Restored	0.7	0.0	0.2	Grade, Widen, Gravel
AR-CAL-02A	30.7	New	No Improvements/ Temporary Use	0.6	0.0	0.1	NA
WR-CAL-06	30.8	Water	NA	0.0	0.0	0.4	NA
AR-CAL-03	30.8	New	Temporary Improvements/ Restored	0.3	0.0	0.1	Grade, Widen, Gravel
AR-CAL-04	32.9	Gravel	No Improvements/ Temporary Use	1.5	0.0	1.1	NA
AR-CAL-04A	32.9	New	Permanently Improved	0.2	0.2	0.0	Grade, Widen, Gravel
WR-CAL-07	32.9	Water	NA	0.0	0.0	0.1	NA
AR-CAL-05	33.7	Dirt	No Improvements/ Temporary Use	2.3	0.0	1.3	NA
AR-CAL-05	33.7	Dirt	Temporary Improvements/ Restored	0.5	0.0	0.1	Grade, Widen, Gravel

APPENDIX E-2 (cont'd)

Proposed Access Roads for the Louisiana Connector Project

Segment/Access Road Name	Milepost	Existing Surface	Status of Improvement/Type [a]	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
WR-CAL-08	34.7	Water	NA	0.0	0.0	0.2	NA
AR-CAL-05A	34.8	Dirt	Temporary Improvements/ Restored	1.3	0.0	0.3	Grade, Widen, Gravel
AR-CAL-06	35.8	Gravel	No Improvements/ Temporary Use	0.8	0.0	0.8	NA
AR-CAL-06A	36.5	Dirt	Temporary Improvements/ Restored	7.1	0.0	1.5	Grade, Widen, Gravel
AR-CAL-07	37.6	Gravel	No Improvements/ Temporary Use	0.8	0.0	0.7	NA
AR-CAL-08	38.9	Gravel	No Improvements/ Temporary Use	0.4	0.0	0.3	NA
AR-CAL-08	38.9	Dirt	Temporary Improvements/ Restored	0.9	0.0	0.2	Grade, Widen, Gravel
AR-CAL-09	39.9	Gravel	No Improvements/ Temporary Use	0.2	0.0	0.2	NA
AR-CAL-10A	40.4	Gravel	No Improvements/ Temporary Use	0.3	0.0	0.3	NA
AR-CAL-10A	40.4	New	Temporary Improvements/ Restored	1.0	0.0	0.2	Grade, Widen, Gravel
AR-CAL-11A	40.5	Gravel	No Improvements/ Temporary Use	<0.1	0.0	0.0	NA
AR-CAL-11A	40.5	Dirt	Temporary Improvements/ Restored	0.6	0.0	0.1	Grade, Widen, Gravel
AR-CAL-13A	41.5	Gravel	No Improvements/ Temporary Use	0.4	0.0	0.3	NA
AR-CAL-17A	43.2	Dirt	Temporary Improvements/ Restored	0.5	0.0	0.1	Grade, Widen, Gravel
AR-CAL-17B	43.6	New	Permanently Improved	<0.1	<0.1	0.0	Grade, Widen, Gravel
AR-CAL-23	46.5	New	Temporary Improvements/ Restored	0.3	0.0	0.1	Grade, Widen, Gravel
AR-CAL-23A	47.0	New	Permanently Improved	1.0	1.0	0.2	Grade, Widen, Gravel
AR-CAL-24A	47.3	Dirt	Temporary Improvements/ Restored	1.6	0.0	0.3	Grade, Widen, Gravel
AR-CAL-27A	47.9	New	Temporary Improvements/ Restored	2.2	0.0	0.4	Grade, Widen, Gravel
AR-CAL-27B	48.2	Asphalt	No Improvements/ Temporary Use	0.2	0.0	0.2	NA
AR-CAL-27B	48.2	New	Temporary Improvements/ Restored	1.0	0.0	0.2	Grade, Widen, Gravel
AR-CAL-30	48.5	Dirt	No Improvements/ Temporary Use	0.2	0.0	0.1	NA
AR-CAL-31	49.8	Dirt	Temporary Improvements/ Restored	4.8	0.0	1.0	Grade, Widen, Gravel
AR-CAL-32	50.1	New	Temporary Improvements/ Restored	0.6	0.0	0.1	Grade, Widen, Gravel
AR-CAL-33	50.9	New	Permanently Improved	0.5	0.5	0.1	Grade, Widen, Gravel
AR-CAL-34	51.0	Gravel	No Improvements/ Temporary Use	0.1	0.0	0.1	NA
AR-CAL-38	54.6	Gravel	No Improvements/ Temporary Use	0.2	0.0	0.1	NA
AR-CAL-38	54.6	Dirt	No Improvements/ Temporary Use	0.8	0.0	0.7	NA
AR-CAL-38	54.6	Dirt	Temporary Improvements/ Restored	1.6	0.0	0.3	Grade, Widen, Gravel
AR-CAL-39	54.8	Gravel	No Improvements/ Temporary Use	0.9	0.0	0.5	NA
AR-CAL-39	54.8	New	Permanently Improved	1.0	1.0	0.2	Grade, Widen, Gravel
AR-CAL-43	56.3	Gravel	No Improvements/ Temporary Use	0.1	0.0	0.1	NA
AR-CAL-43	56.3	New	Temporary Improvements/ Restored	0.2	0.0	0.0	Grade, Widen, Gravel

APPENDIX E-2 (cont'd)

Proposed Access Roads for the Louisiana Connector Project

Segment/Access Road Name	Milepost	Existing Surface	Status of Improvement/Type [a]	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
AR-CAL-44	56.6	Dirt	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-CAL-45	56.6	Gravel	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-CAL-46A	56.7	Dirt	Temporary Improvements/ Restored	0.7	0.0	0.1	Grade, Widen, Gravel
AR-CAL-47	57.4	Dirt	Temporary Improvements/ Restored	4.0	0.0	0.8	Grade, Widen, Gravel
AR-CAL-47A	58.8	Gravel	No Improvements/ Temporary Use	<0.1	0.0	0.0	NA
AR-CAL-47B	58.9	New	Temporary Improvements/ Restored	0.1	0.0	0.0	Grade, Widen, Gravel
AR-CAL-48	59.0	Gravel	No Improvements/ Temporary Use	2.8	0.0	1.6	NA
AR-CAL-49	59.0	Gravel	No Improvements/ Temporary Use	1.0	0.0	0.6	NA
AR-CAL-49A	59.7	Dirt	Temporary Improvements/ Restored	0.8	0.0	0.2	Grade, Widen, Gravel
AR-CAL-50	60.0	Dirt	Temporary Improvements/ Restored	0.9	0.0	0.2	Grade, Widen, Gravel
AR-CAL-51	61.1	Gravel	No Improvements/ Temporary Use	8.7	0.0	2.9	NA
AR-CAL-52	61.6	Gravel	No Improvements/ Temporary Use	1.9	0.0	1.5	NA
AR-CAL-53	62.2	Gravel	No Improvements/ Temporary Use	1.2	0.0	0.9	NA
AR-CAL-53A	63.0	Dirt	No Improvements/ Temporary Use	<0.1	0.0	0.0	NA
AR-CAL-54	63.6	Dirt	Temporary Improvements/ Restored	0.4	0.0	0.1	Grade, Widen, Gravel
AR-CAL-55	63.6	Gravel	No Improvements/ Temporary Use	1.5	0.0	0.8	NA
AR-CAL-55	63.6	Dirt	Temporary Improvements/ Restored	1.3	0.0	0.3	Grade, Widen, Gravel
AR-CAL-56	63.8	Dirt	Temporary Improvements/ Restored	0.4	0.0	0.1	Grade, Widen, Gravel
AR-CAL-57	64.7	Gravel	No Improvements/ Temporary Use	9.7	0.0	4.0	NA
AR-CAL-58	65.1	Gravel	No Improvements/ Temporary Use	0.4	0.0	0.2	NA
AR-CAL-58	65.1	New	Temporary Improvements/ Restored	0.2	0.0	0.1	Grade, Widen, Gravel
AR-CAL-59	65.7	Gravel	No Improvements/ Temporary Use	0.1	0.0	0.1	NA
AR-CAL-59	65.7	Dirt	Temporary Improvements/ Restored	1.6	0.0	0.3	Grade, Widen, Gravel
AR-CAL-60	66.1	Gravel	No Improvements/ Temporary Use	0.1	0.0	0.0	NA
AR-CAL-61	66.1	Gravel	No Improvements/ Temporary Use	1.7	0.0	1.4	NA
AR-CAL-62	66.2	Dirt	Temporary Improvements/ Restored	2.1	0.0	0.4	Grade, Widen, Gravel
AR-BEA-01	68.2	Gravel	No Improvements/ Temporary Use	0.7	0.0	0.4	NA
AR-BEA-01	68.2	Dirt	Temporary Improvements/ Restored	1.4	0.0	0.3	Grade, Widen, Gravel
AR-BEA-02	68.2	Gravel	No Improvements/ Temporary Use	0.2	0.0	0.1	NA
AR-BEA-03	69.3	Dirt	Temporary Improvements/ Restored	2.2	0.0	0.5	Grade, Widen, Gravel
AR-BEA-04	69.9	Gravel	No Improvements/ Temporary Use	1.4	0.0	0.8	NA
AR-BEA-04	69.9	New	Temporary Improvements/ Restored	0.4	0.0	0.1	Grade, Widen, Gravel
AR-BEA-04B	70.6	New	Permanently Improved	1.0	1.0	0.0	Grade, Widen, Gravel

APPENDIX E-2 (cont'd)

Proposed Access Roads for the Louisiana Connector Project

Segment/Access Road Name	Milepost	Existing Surface	Status of Improvement/Type [a]	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
AR-BEA-05	71.4	Gravel	No Improvements/ Temporary Use	0.9	0.0	0.5	NA
AR-BEA-12	72.2	New	Permanently Improved	0.5	0.5	0.1	Grade, Widen, Gravel
AR-BEA-06A	72.3	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-BEA-06	72.3	New	Permanently Improved	0.45	0.5	0.1	Grade, Widen, Gravel
AR-BEA-06B	72.5	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-BEA-07	73.9	Dirt	Temporary Improvements/ Restored	2.4	0.0	0.5	Grade, Widen, Gravel
AR-BEA-08	74.6	Dirt	Temporary Improvements/ Restored	0.9	0.0	0.2	Grade, Widen, Gravel
AR-BEA-09	75.2	Gravel	No Improvements/ Temporary Use	3.3	0.0	2.1	NA
AR-BEA-10	75.7	Dirt	No Improvements/ Temporary Use	1.0	0.0	0.6	NA
AR-BEA-11	76.7	New	Permanently Improved	0.2	0.2	0.0	Grade, Widen, Gravel
AR-ALL-01	77.6	Dirt	Temporary Improvements/ Restored	2.9	0.0	0.6	Grade, Widen, Gravel
AR-ALL-01A	77.9	Dirt	Temporary Improvements/ Restored	0.5	0.0	0.1	Grade, Widen, Gravel
AR-ALL-03	81.3	Gravel	No Improvements/ Temporary Use	3.0	0.0	1.4	NA
AR-ALL-04	85.0	Dirt	No Improvements/ Temporary Use	0.9	0.0	0.8	NA
AR-ALL-05	87.1	Gravel	No Improvements/ Temporary Use	3.5	0.0	1.8	NA
AR-ALL-05	87.1	New	Permanently Improved	1.6	1.6	0.3	Grade, Widen, Gravel
AR-ALL-06	89.9	Asphalt	No Improvements/ Temporary Use	0.6	0.0	0.2	NA
AR-ALL-07	90.7	Dirt	No Improvements/ Temporary Use	0.8	0.0	0.1	NA
AR-ALL-08	91.0	Dirt	No Improvements/ Temporary Use	0.2	0.0	0.2	NA
AR-ALL-09	93.9	Dirt	Temporary Improvements/ Restored	1.1	0.0	0.2	Grade, Widen, Gravel
AR-ALL-10A	96.0	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-ALL-10D	96.1	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-ALL-09C	96.1	Dirt	No Improvements/ Temporary Use	0.1	0.0	0.0	NA
AR-ALL-10E	96.2	New	Permanently Improved	<0.1	<0.1	0.0	Grade, Widen, Gravel
AR-ALL-10B	96.3	New	Permanently Improved	<0.1	<0.1	0.0	Grade, Widen, Gravel
AR-ALL-10F	96.4	New	Permanently Improved	0.2	0.2	0.1	Grade, Widen, Gravel
AR-ALL-10	96.4	Gravel	No Improvements/ Temporary Use	0.5	0.0	0.3	NA
AR-ALL-10G	98.0	Dirt	No Improvements/ Temporary Use	0.9	0.0	0.5	NA
AR-ALL-10H	98.0	Dirt	Temporary Improvements/ Restored	3.3	0.0	0.7	Grade, Widen, Gravel
AR-ALL-11	100.5	Dirt	Temporary Improvements/ Restored	0.9	0.0	0.2	Grade, Widen, Gravel
AR-ALL-12	101.2	Dirt	No Improvements/ Temporary Use	0.2	0.0	0.2	NA
AR-ALL-13	101.8	Dirt	Temporary Improvements/ Restored	2.0	0.0	0.4	Grade, Widen, Gravel
AR-ALL-14	102.3	Dirt	Temporary Improvements/ Restored	3.3	0.0	0.7	Grade, Widen, Gravel

APPENDIX E-2 (cont'd)

Proposed Access Roads for the Louisiana Connector Project

Segment/Access Road Name	Milepost	Existing Surface	Status of Improvement/Type [a]	Construction Impacts (acres)	Operation Impacts (acres)	Length (miles)	Improvements Required
AR-ALL-15	102.9	Gravel	No Improvements/ Temporary Use	1.5	0.0	0.6	NA
AR-ALL-15F	106.0	Dirt	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-ALL-15G	106.0	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-ALL-16	107.0	Gravel	No Improvements/ Temporary Use	0.6	0.0	0.3	NA
AR-ALL-17	108.0	Gravel	No Improvements/ Temporary Use	3.5	0.0	1.3	NA
AR-EVA-01	110.9	Dirt	Temporary Improvements/ Restored	2.2	0.0	0.4	Grade, Widen, Gravel
AR-EVA-02	113.3	Gravel	No Improvements/ Temporary Use	0.2	0.0	0.1	NA
AR-EVA-03	113.6	Dirt	Temporary Improvements/ Restored	0.1	0.0	0.0	Grade, Widen, Gravel
AR-EVA-03A	113.7	New	Permanently Improved	0.1	0.1	0.0	Grade, Widen, Gravel
AR-EVA-04	114.7	Gravel	No Improvements/ Temporary Use	0.4	0.0	0.3	NA
AR-EVA-05	115.3	Dirt	No Improvements/ Temporary Use	0.5	0.0	0.4	NA
AR-EVA-05	115.3	New	Permanently Improved	0.2	0.2	0.0	Grade, Widen, Gravel
AR-EVA-05B	115.7	Dirt	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-EVA-05C	116.0	New	Permanently Improved	<0.1	<0.1	0.0	Grade, Widen, Gravel
AR-EVA-06	117.6	Gravel	No Improvements/ Temporary Use	0.2	0.0	0.1	NA
AR-STL-01A	120.5	Dirt	Temporary Improvements/ Restored	0.1	0.0	0.0	Grade, Widen, Gravel
AR-STL-01D	120.5	New	Temporary Improvements/ Restored	<0.1	0.0	0.0	Grade, Widen, Gravel
AR-STL-01B	120.8	Gravel	No Improvements/ Temporary Use	0.1	0.0	0.0	NA
AR-STL-01B	120.8	Dirt	Temporary Improvements/ Restored	0.1	0.0	0.0	Grade, Widen, Gravel
AR-STL-01	121.2	Dirt	Temporary Improvements/ Restored	0.3	0.0	0.1	Grade, Widen, Gravel
AR-STL-01C	122.4	Dirt	Temporary Improvements/ Restored	0.6	0.0	0.1	Grade, Widen, Gravel
AR-STL-04	123.4	New	Temporary Improvements/ Restored	0.5	0.0	0.1	Grade, Widen, Gravel
AR-STL-14	130.8	New	Permanently Improved	<0.1	<0.1	0.0	Grade, Widen, Gravel
Access Road Totals				**144.9**	**8.2**	**93.9**	

[a] Permanently Improved access roads require improvements, would be used during operations, and are considered permanent impacts. No Improvements/ Temporary Use access roads do not require improvements, would only be used during construction, and are considered temporary impacts. Temporary Improved/ Restored access roads only require improvements during construction, would be returned to pre-construction conditions, and are considered temporary impacts.

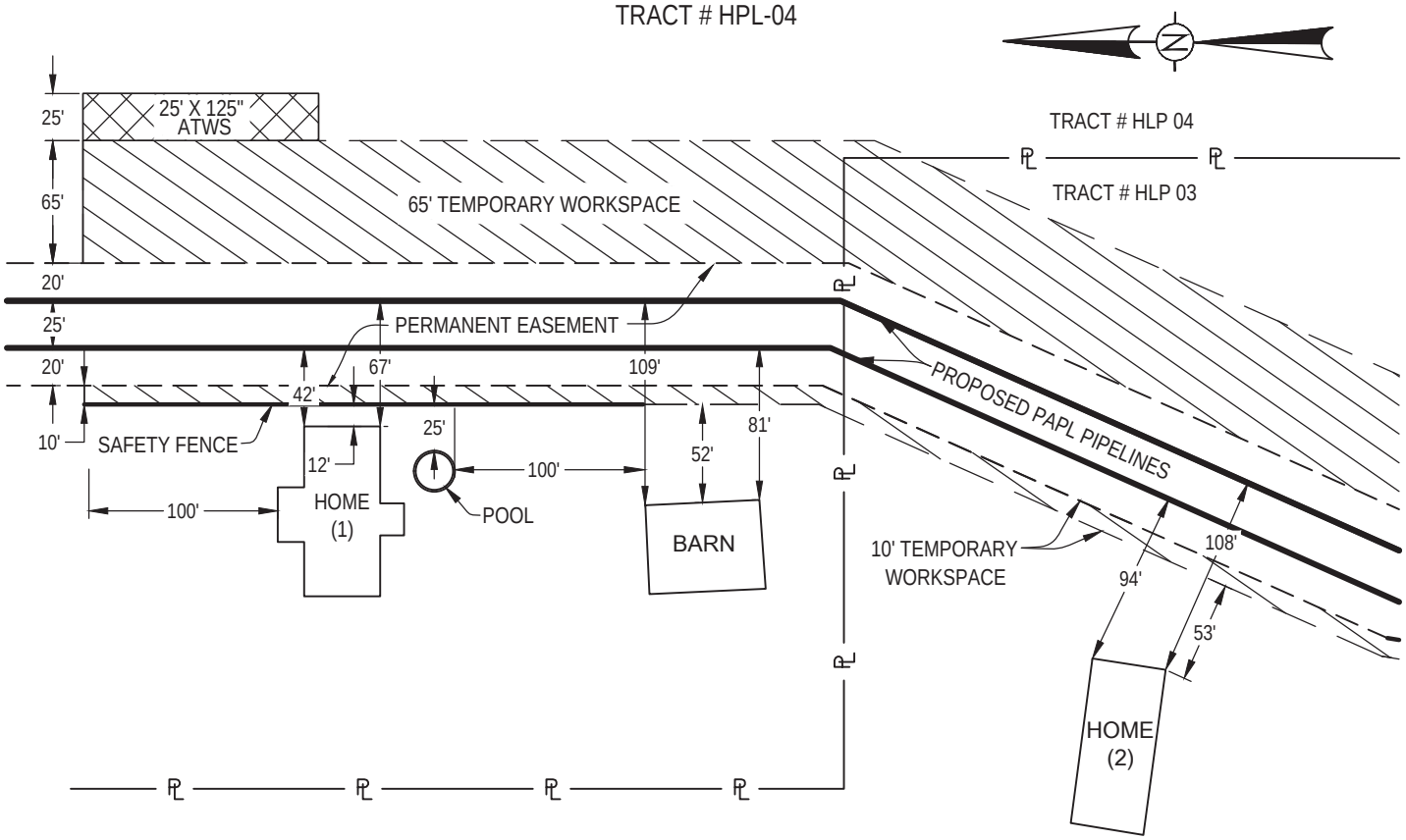
Note: Addends may not sum due to rounding.

APPENDIX F

RESIDENTIAL CONSTRUCTION PLANS

TEXAS CONNECTOR PROJECT

RESIDENTIAL IMPLEMENTATION PLAN
DEC ' D, A-169
TRACT # HPL-03
TRACT # HPL-04



STRUCTURE LOCATED 0' TO 50'
FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	N 26.4	12.0'
POOL	N 26.4	25.0'
BARN	N 26.3	52.0'
HOME (2)	N 26.3	53.0'

NOTES:
1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE
1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.

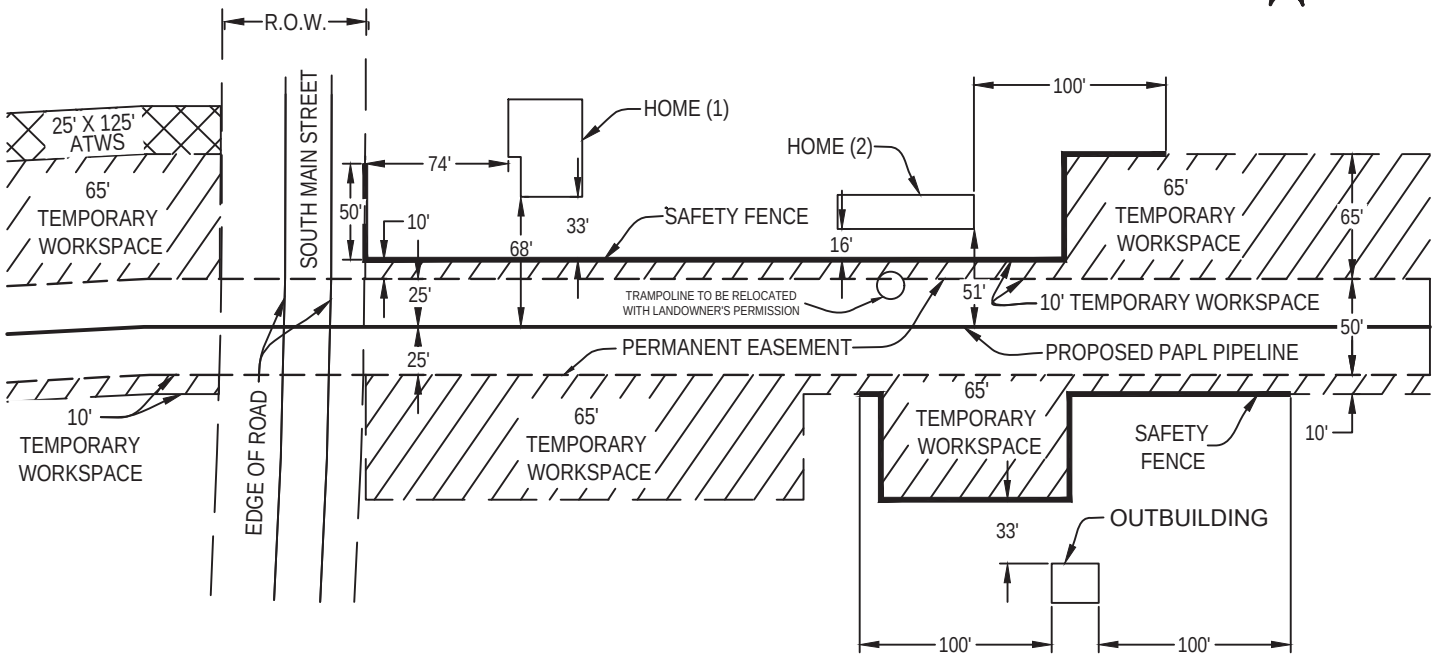
PORT ARTHUR PIPELINE

NO.	REVISION	DATE	APPR.
B	ISSUED FOR REVIEW	1/5/16	FAT
A	ISSUED FOR REVIEW	12/18/15	FAT

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA
ORANGE COUNTY, TEXAS

SCALE	DATE	DRAWN	CHECKED	APPROVED	PROJ. NO.	DRAWING NUMBER	SHEET
1"=100'	1/5/16	JBS	BJV	FAT	22670	22670-510-SSP-19004	1 OF 1

RESIDENTIAL IMPLEMENTATION PLAN
J. STEPHENSON SURVEY, A-169
TRACT # FGT-03



STRUCTURE LOCATED 0" TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (2)	FGT 0.3	16.0'
HOME (1)	FGT 0.3	33.0'
OUTBUILDING	FGT 0.3	33.0'

NOTES:
1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.
4. TRAMPOLINE TO BE RELOCATED WITH LANDOWNER'S PERMISSION.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE
1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.

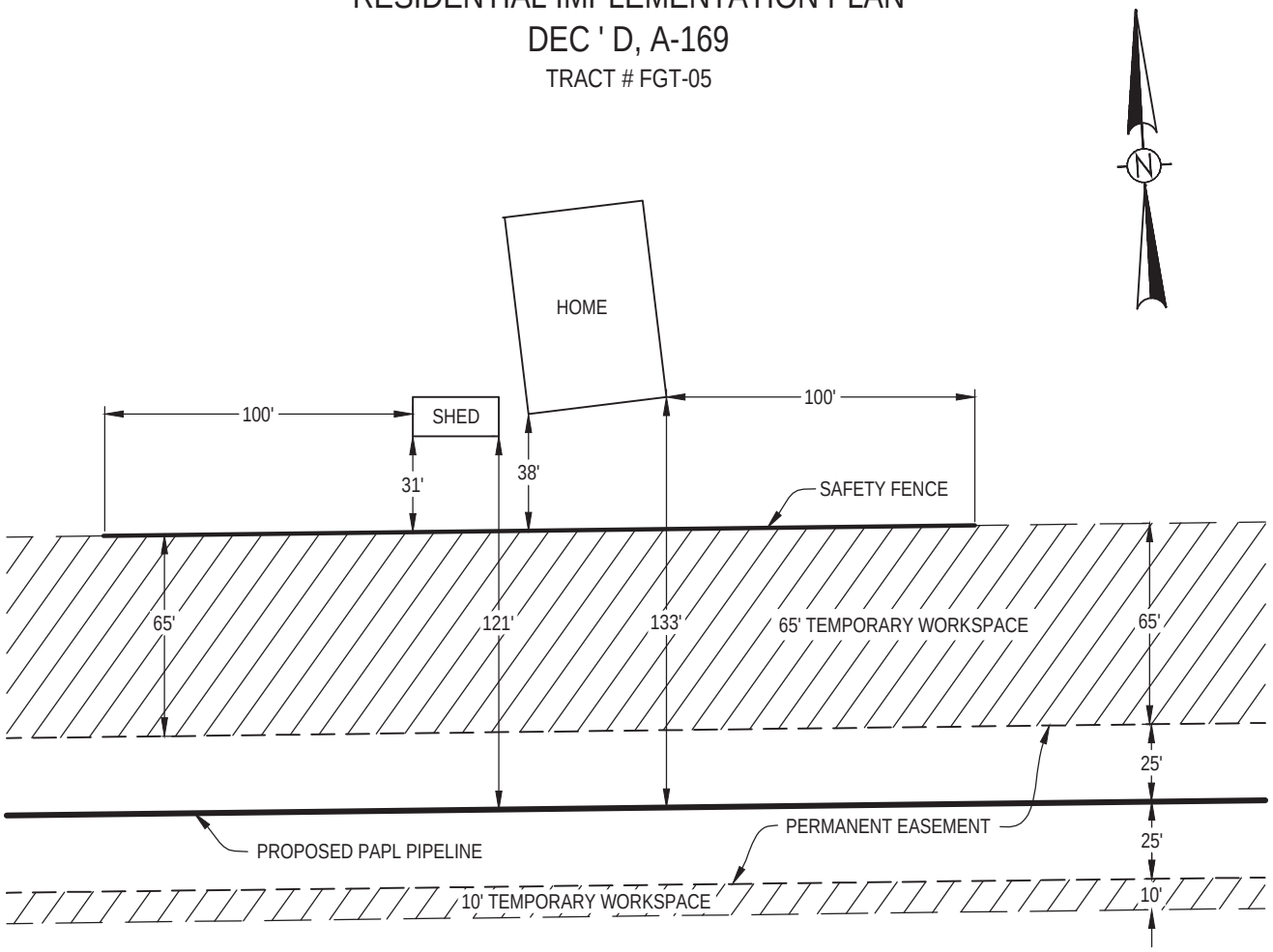
PORT ARTHUR PIPELINE

NO.	REVISION	DATE	APPR.
B	ISSUE FOR REVIEW	05/18/17	FAT
A	ISSUED FOR REVIEW	12/18/15	TJ

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA
ORANGE COUNTY, TEXAS

SCALE	DATE	DRAWN	CHECKED	APPROVED	PROJ. NO.	DRAWING NUMBER	SHEET
1"=100'	12/09/15	JBS	BJV	TJ	22670	22670-510-SSP-19005	1 OF 1

RESIDENTIAL IMPLEMENTATION PLAN
DEC ' D, A-169
TRACT # FGT-05



STRUCTURE LOCATED 0" TO 50'
FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME	FGT 0.5	38.0'
SHED	FGT 0.5	31.0'

NOTES:
1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES .

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE
1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.

PORT ARTHUR
PIPELINE

UniversalPegasus INTERNATIONAL

Port Arthur Pipeline

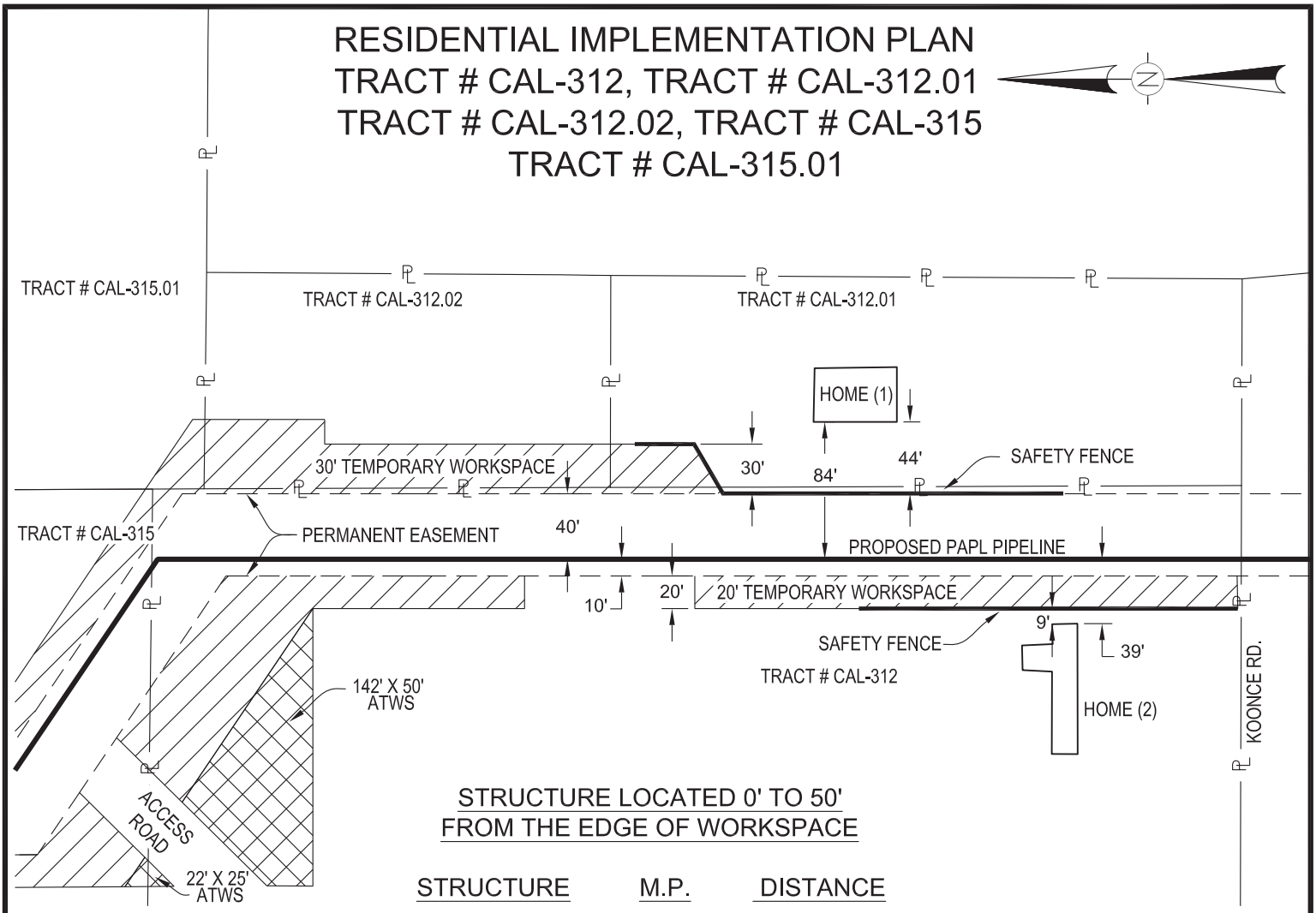
NO.	REVISION	DATE	APPR.
A	ISSUED FOR REVIEW	12/18/15	TJ

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA
ORANGE COUNTY, TEXAS

SCALE	DATE	DRAWN	CHECKED	APPROVED	PROJ. NO.	DRAWING NUMBER	SHEET
1"=60'	12/14/15	JBS	BJV	TJ	22670	22670-510-SSP-19006	1 OF 1

LOUISIANA CONNECTOR PROJECT

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # CAL-312, TRACT # CAL-312.01
TRACT # CAL-312.02, TRACT # CAL-315
TRACT # CAL-315.01



STRUCTURE LOCATED 0' TO 50'
FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	56.6	44.0'
HOME (2)	56.6	9.0'

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - CALCASIEU PARISH, LOUISIANA

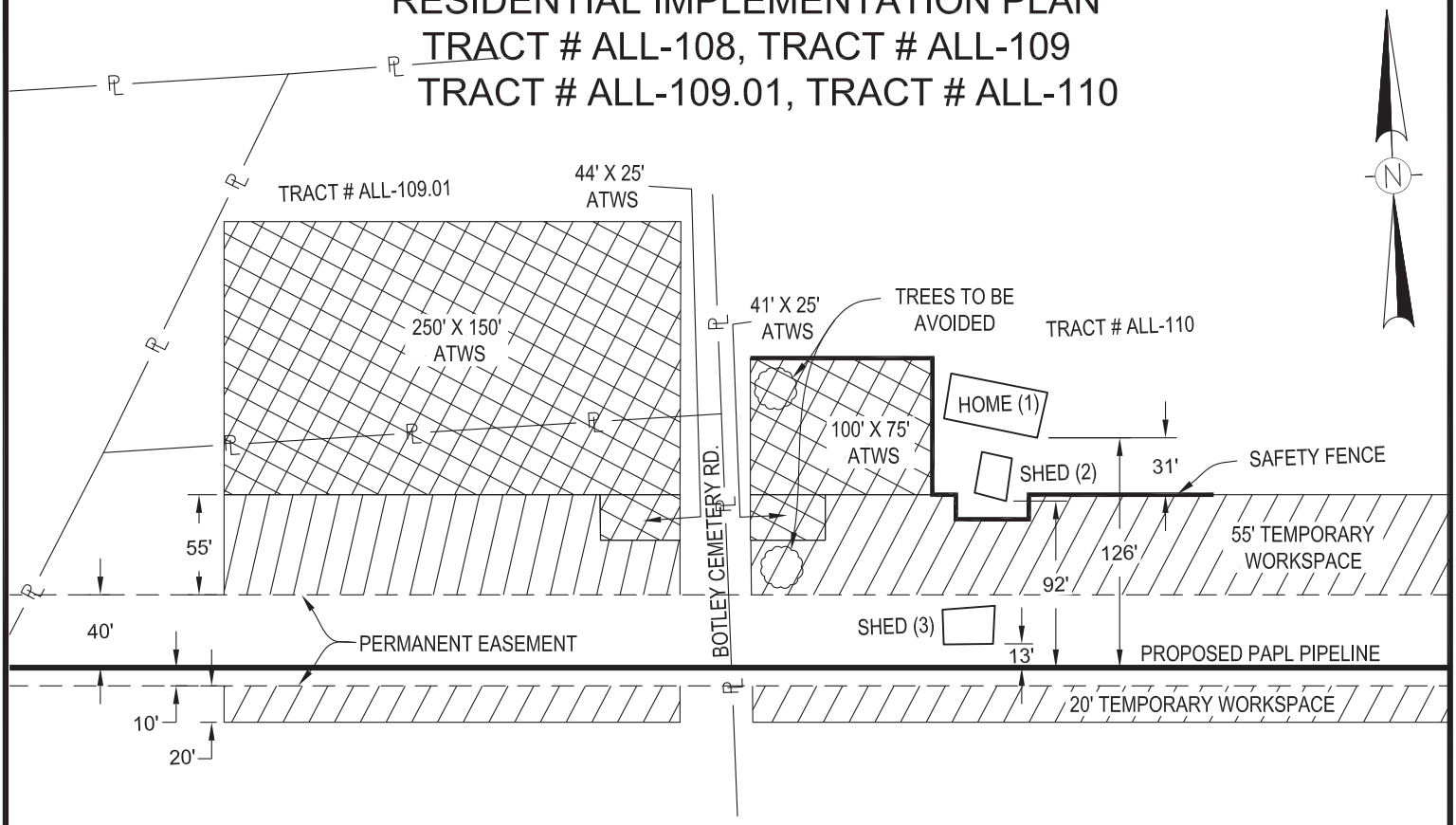
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19001		
CLIENT JOB NO.	N/A		

Saved: 9/12/2017 @ 14:21 by: DIANA.MEJIA Path: \\hou-fs1\HOU_Projects\23707\0\500_ENG-DSN\507_GEOMATICS_DSN\PLN-Plans\23707-507-PLN-19001.dwg

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # ALL-108, TRACT # ALL-109
TRACT # ALL-109.01, TRACT # ALL-110



TRACT # ALL-109 / TRACT # ALL-108

STRUCTURE LOCATED 0' TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	97.0	31.0'
SHED (2)	97.0	5.9'
SHED (3)	97.0	0.0' * TO BE REMOVED

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

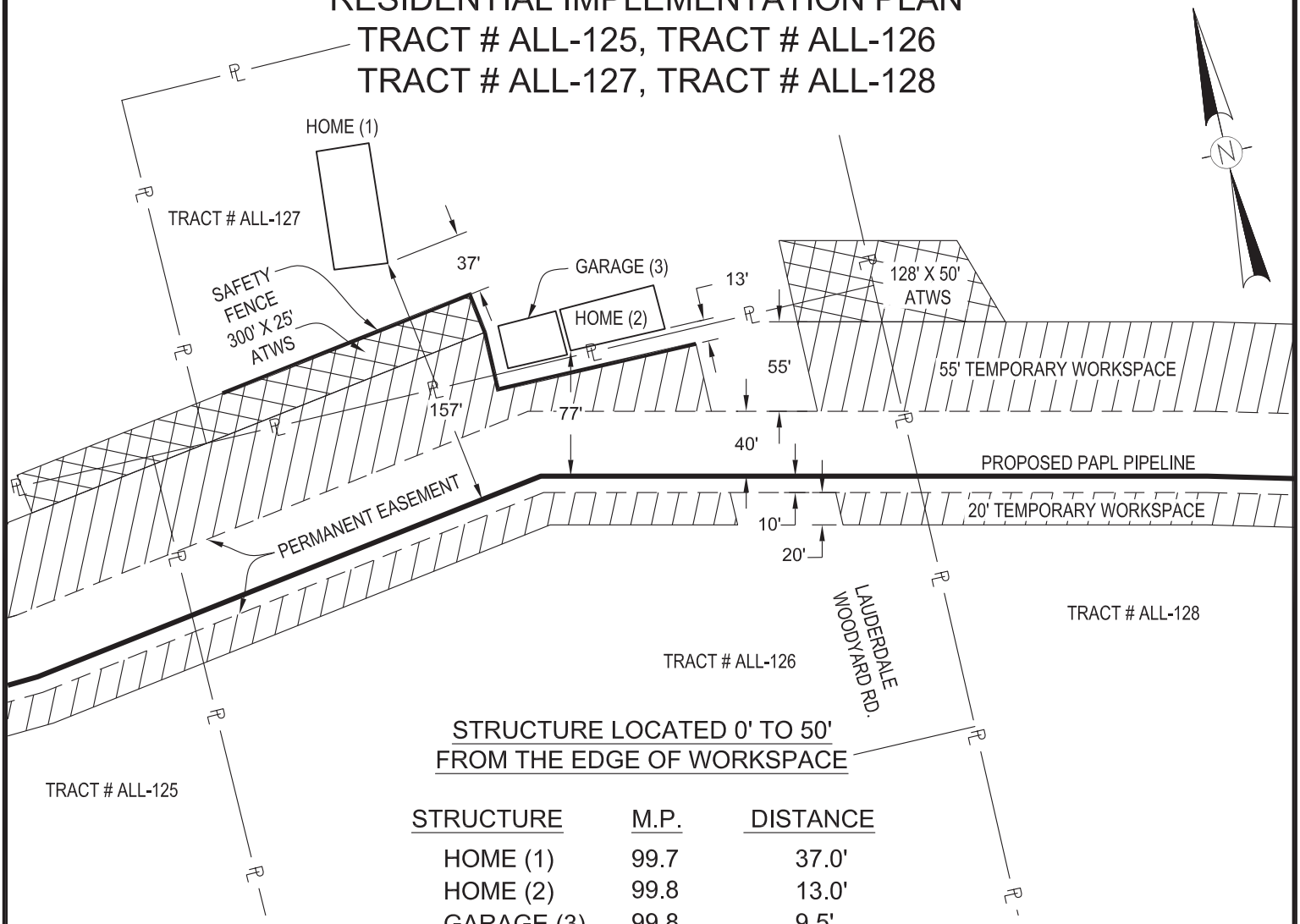
PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - ALLEN PARISH, LOUISIANA

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19002		
CLIENT JOB NO.	N/A		

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # ALL-125, TRACT # ALL-126
TRACT # ALL-127, TRACT # ALL-128



STRUCTURE LOCATED 0' TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	99.7	37.0'
HOME (2)	99.8	13.0'
GARAGE (3)	99.8	9.5'

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

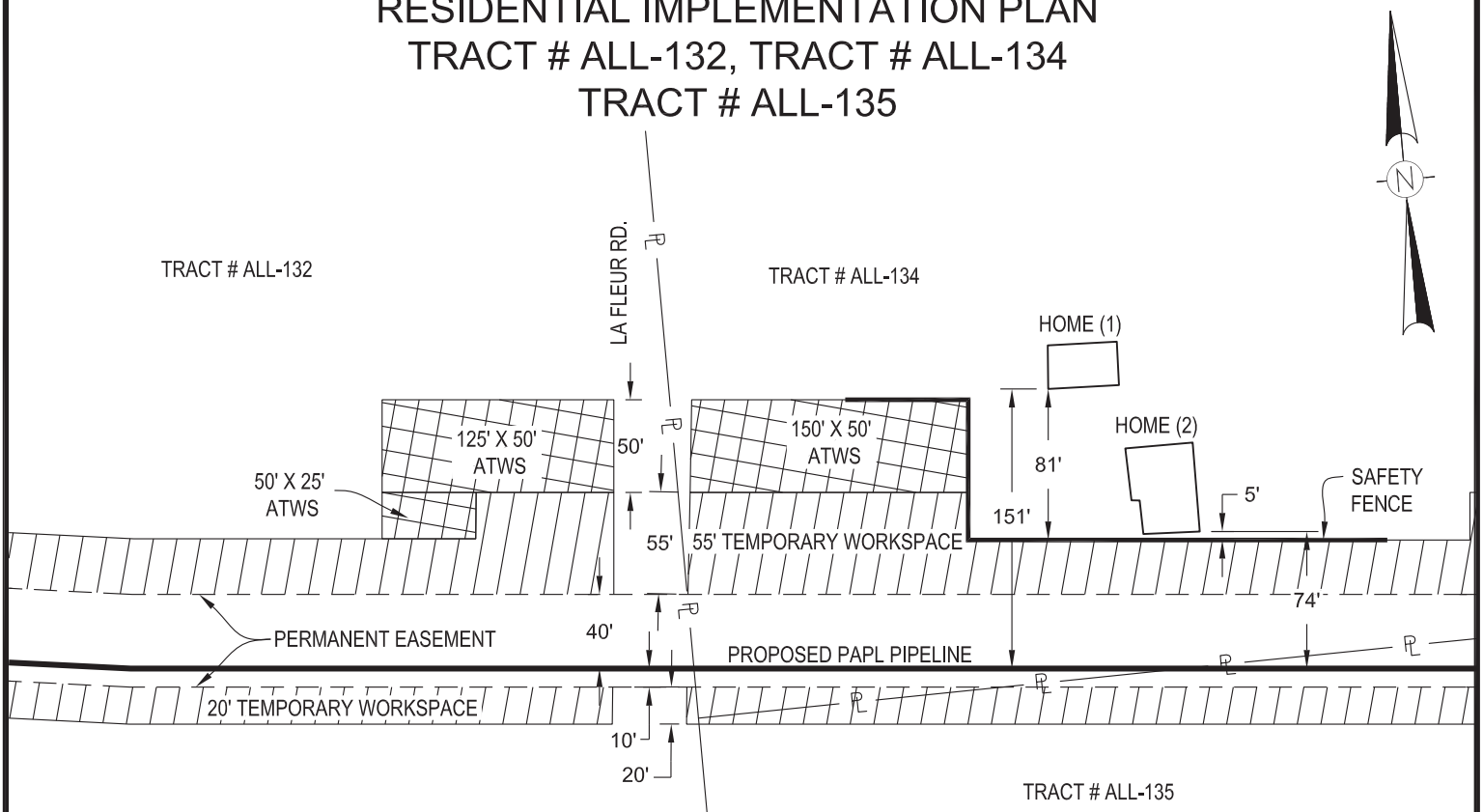
PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - ALLEN PARISH , LOUISIANA

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19003		
CLIENT JOB NO.	N/A		

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # ALL-132, TRACT # ALL-134
TRACT # ALL-135



STRUCTURE LOCATED 0' TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	103.7	81.0'
HOME (2)	103.7	5.0'

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - ALLEN PARISH , LOUISIANA

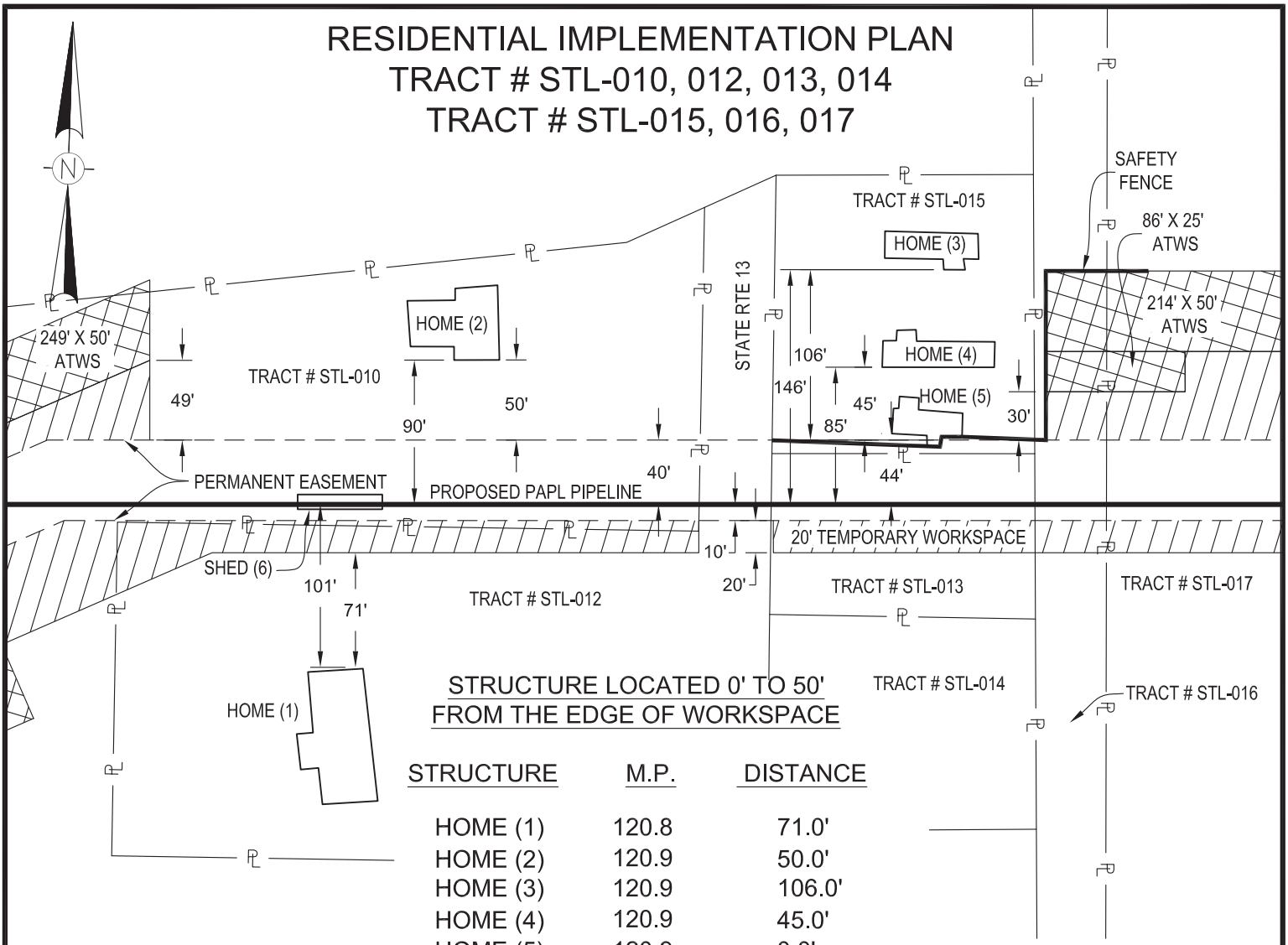
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19004		
CLIENT JOB NO.	N/A		

Saved: 9/12/2017 @ 14:31 by: DIANA.MEJIA Path: \\hou-fs1\HOU_Projects\23707\0\500_ENG-DSN\507_GEOMATICS_DSN\PLN-Plans\23707-507-PLN-19004.dwg

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # STL-010, 012, 013, 014
TRACT # STL-015, 016, 017



STRUCTURE LOCATED 0' TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
HOME (1)	120.8	71.0'
HOME (2)	120.9	50.0'
HOME (3)	120.9	106.0'
HOME (4)	120.9	45.0'
HOME (5)	120.9	0.0'
SHED (6)	120.8	0.0' * TO BE REMOVED

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

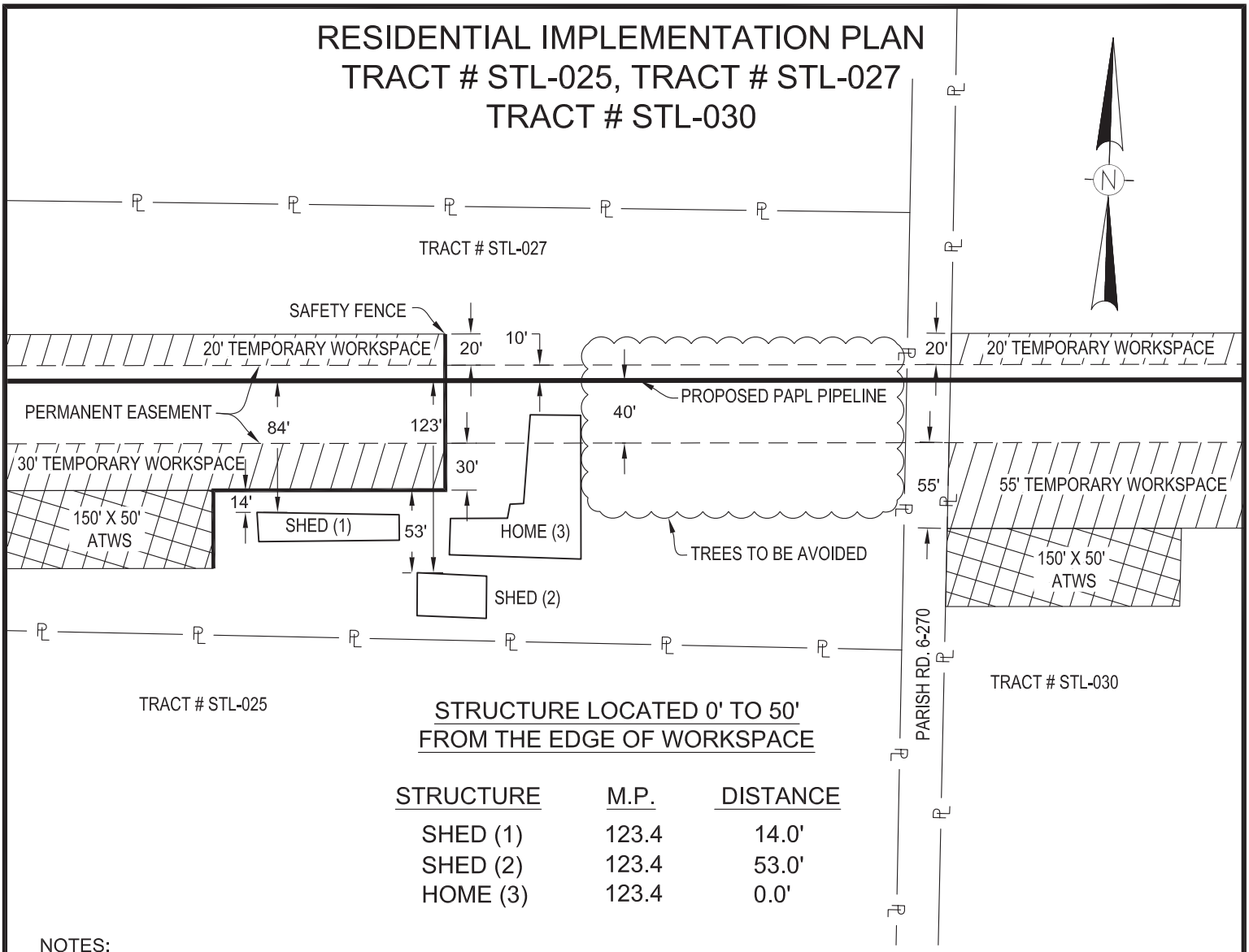
PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - ST. LANDRY PARISH, LOUISIANA

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19005		
CLIENT JOB NO.	N/A		

RESIDENTIAL IMPLEMENTATION PLAN
TRACT # STL-025, TRACT # STL-027
TRACT # STL-030



STRUCTURE LOCATED 0' TO 50' FROM THE EDGE OF WORKSPACE

STRUCTURE	M.P.	DISTANCE
SHED (1)	123.4	14.0'
SHED (2)	123.4	53.0'
HOME (3)	123.4	0.0'

NOTES:

1. TRUE ORIENTATION OF STRUCTURE TO THE CENTERLINE OF THE PROPOSED PIPELINE MAY DIFFER FROM THAT SHOWN.
2. ADDITIONAL CONSTRUCTION LIMITATIONS/INSTRUCTIONS FOR THIS TRACT MAY BE DEFINED UNDER SPECIAL CONSTRUCTION PROVISIONS OF THE RIGHT-OF-WAY LINE LIST.
3. FOR ADDITIONAL CONSTRUCTION PROCEDURES, SEE RESIDENTIAL/STRUCTURAL IMPLEMENTATION PLAN NOTES.

SITE SPECIFIC RESIDENTIAL/STRUCTURAL CONSTRUCTION TECHNIQUES

PREFERRED TECHNIQUE

1. ELIMINATE TEMPORARY WORK SPACE WITH A MINIMUM DISTANCE OF 10 FEET BEYOND NEAREST POINT OF STRUCTURE.
2. INSTALL AND MAINTAIN SAFETY FENCE ALONG EDGE OF THE TEMPORARY WORK SPACE AREA, SAFETY FENCE TO EXTEND AT LEAST 100 FEET BEYOND THE EXTREMES OF THE STRUCTURES.
3. CONSTRUCTION IN RESIDENTIAL AREAS THAT INVOLVES ITEMS SUCH AS THE REMOVAL OF FENCES, STONE WALLS, WATER SUPPLIES, DRIVE WAYS, SIDEWALKS OR SEPTIC SYSTEMS SHALL BE REPAIRED OR REPLACED.
4. INSTALL A SAFETY FENCE AT THE EDGE OF THE CONSTRUCTION ROW FOR A DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESIDENCE.
5. ATTEMPT TO LEAVE MATURE TREES AND LANDSCAPING INTACT WITHIN THE CONSTRUCTION WORK AREA, UNLESS THEY INTERFERE WITH INSTALLATION TECHNIQUES OR PRESENT UNSAFE WORKING CONDITIONS.
6. ENSURE PIPE IS WELDED, INSTALLED, AND BACKFILLED IN A TIMELY MANNER TO REDUCE THE CONSTRUCTION IMPACTS OF THE NEIGHBORHOOD.
7. BACKFILL THE TRENCH AS SOON AS PIPE IS INSTALLED, OR TEMPORARILY PLACE STEEL PLATES OVER THE TRENCH.
8. COMPLETE FINAL CLEANUP, GRADING, AND INSTALLATION OF PERMANENT EROSION CONTROL DEVICES WITHIN 10 DAYS AFTER BACKFILLING THE TRENCH, WEATHER PERMITTING.

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING
FIRM LIC. # EF.0001688

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

PORT ARTHUR PIPELINE
RESIDENTIAL IMPLEMENTATION PLAN
0' TO 50' OF WORK AREA - ST. LANDRY PARISH, LOUISIANA

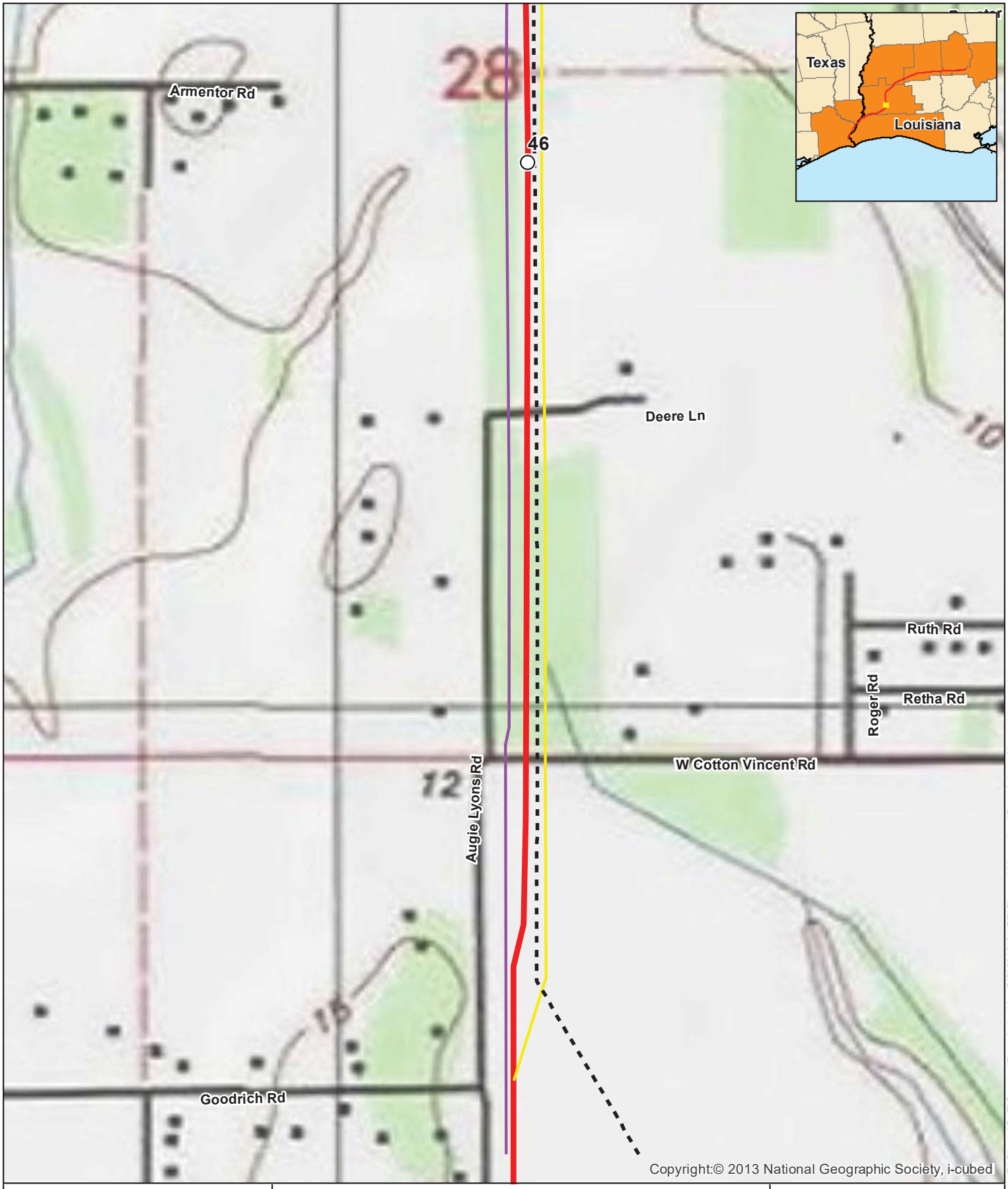
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMIT	09/14/2017	DCM	GLE	CAS

DRAWN	JN	DATE	09/05/2017
CHKD	GLE	DATE	09/05/2017
APPD	CAS	DATE	09/05/2017
JOB NO.	23707	SHEET	1 OF 1
LOCATION	-----	STATE	LA
SCALE	1"=100'	REV	A
DWG NO.	23707-507-PLN-19006		
CLIENT JOB NO.	N/A		

APPENDIX G

DRIFTWOOD ALTERNATIVE



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

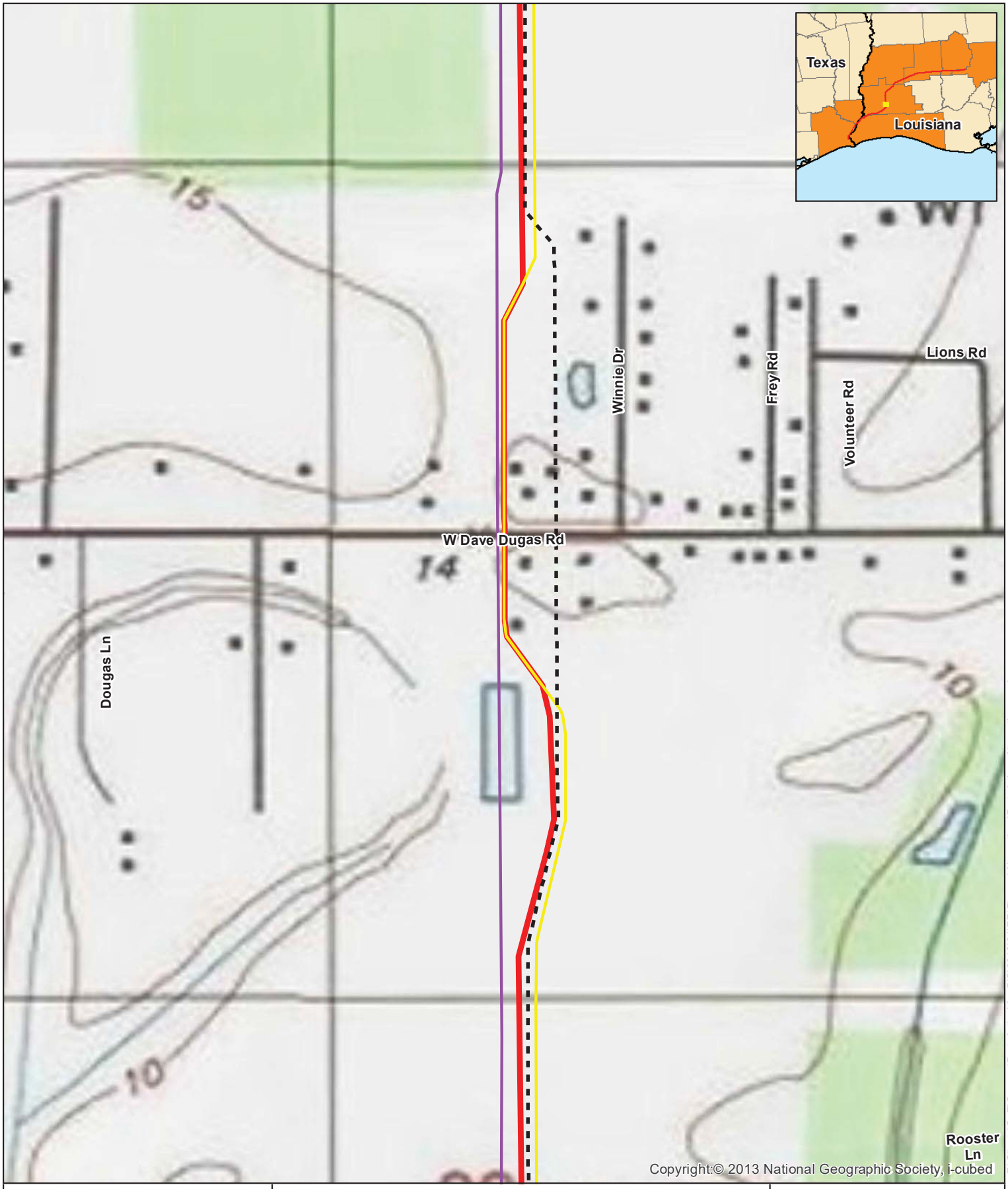
Map 1 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

Map 2 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)

0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

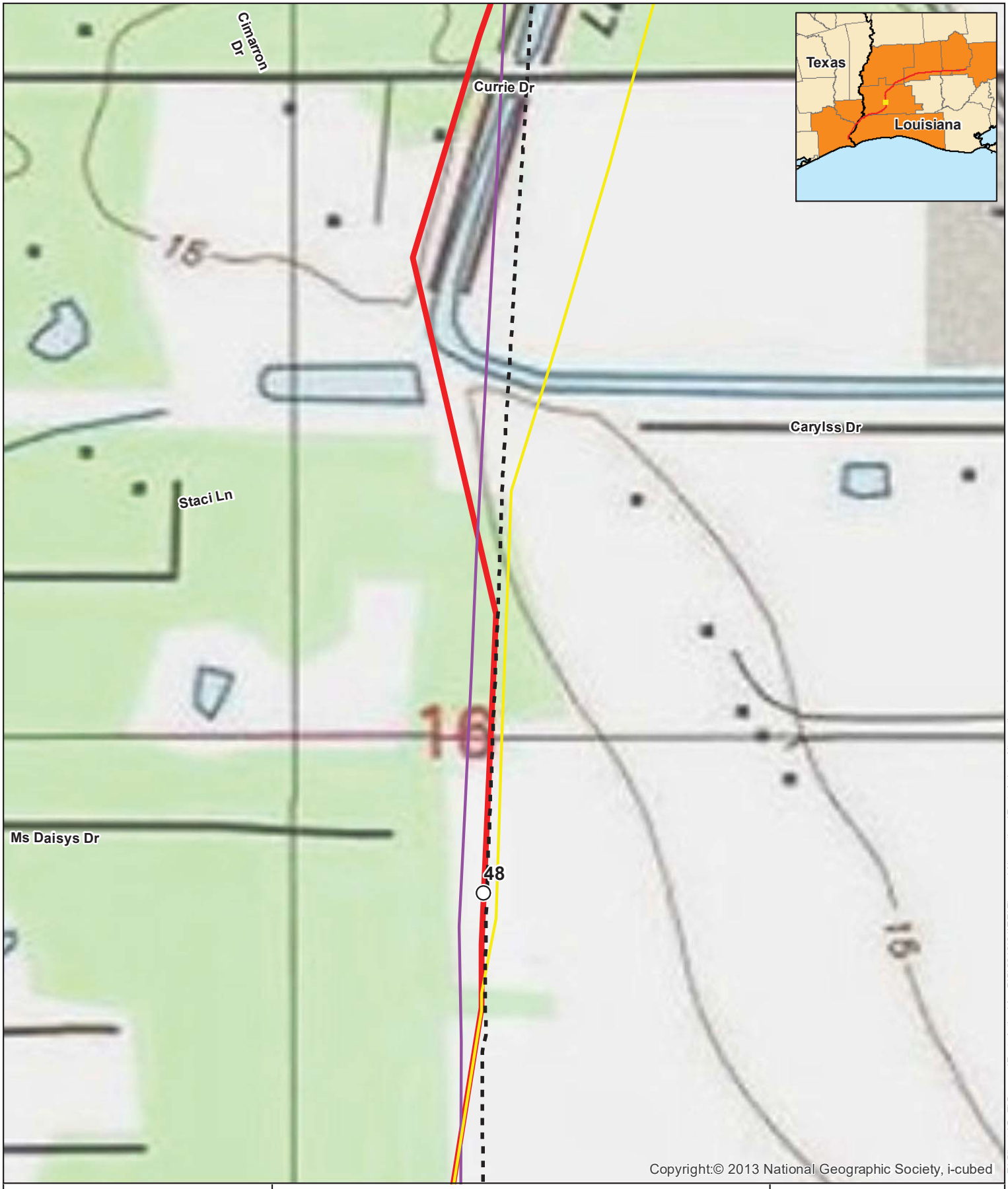
Map 3 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

Map 4 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)

0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

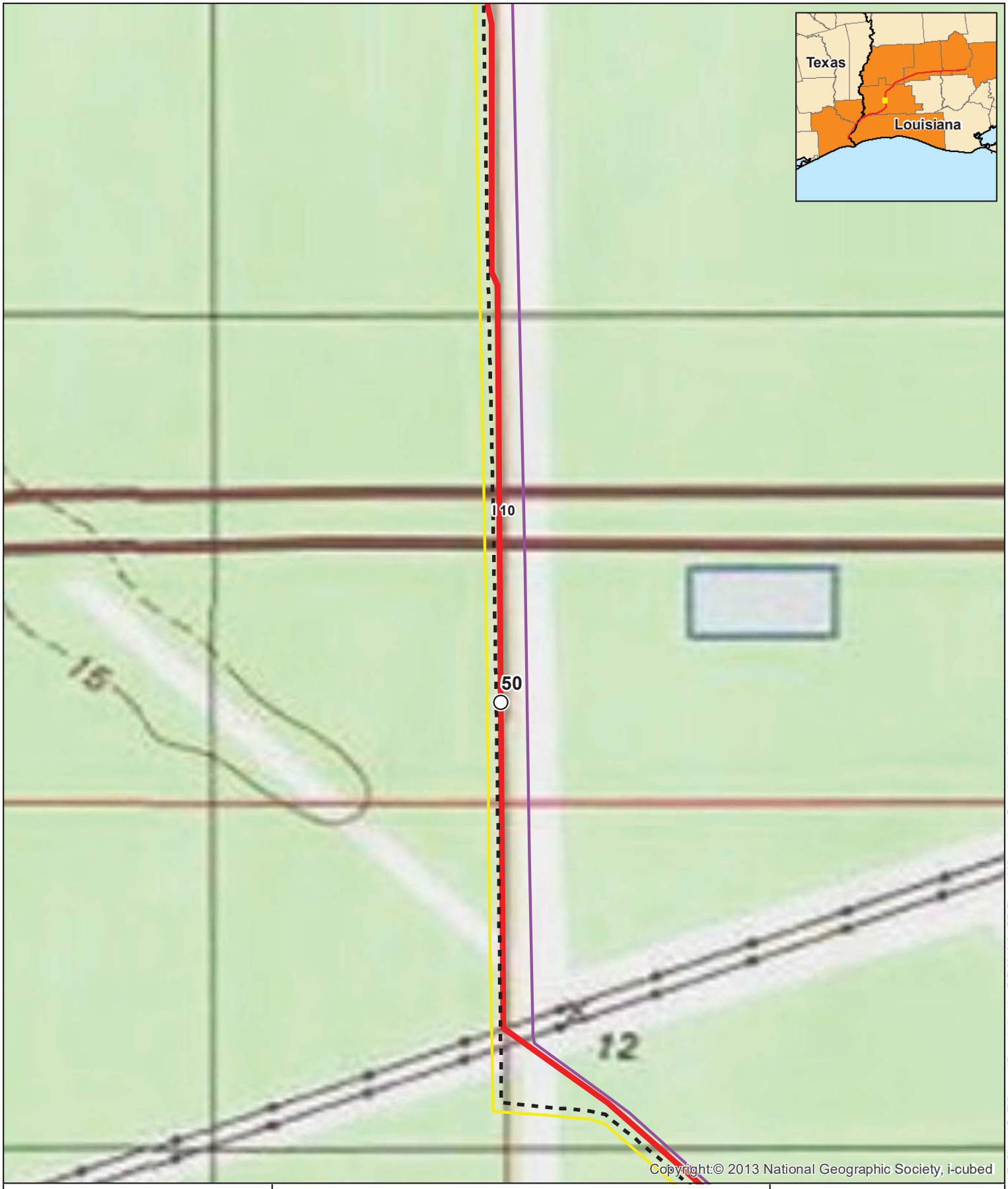
Map 5 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\G_T\SempraPort_Arthur\ArcGIS\20180101RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

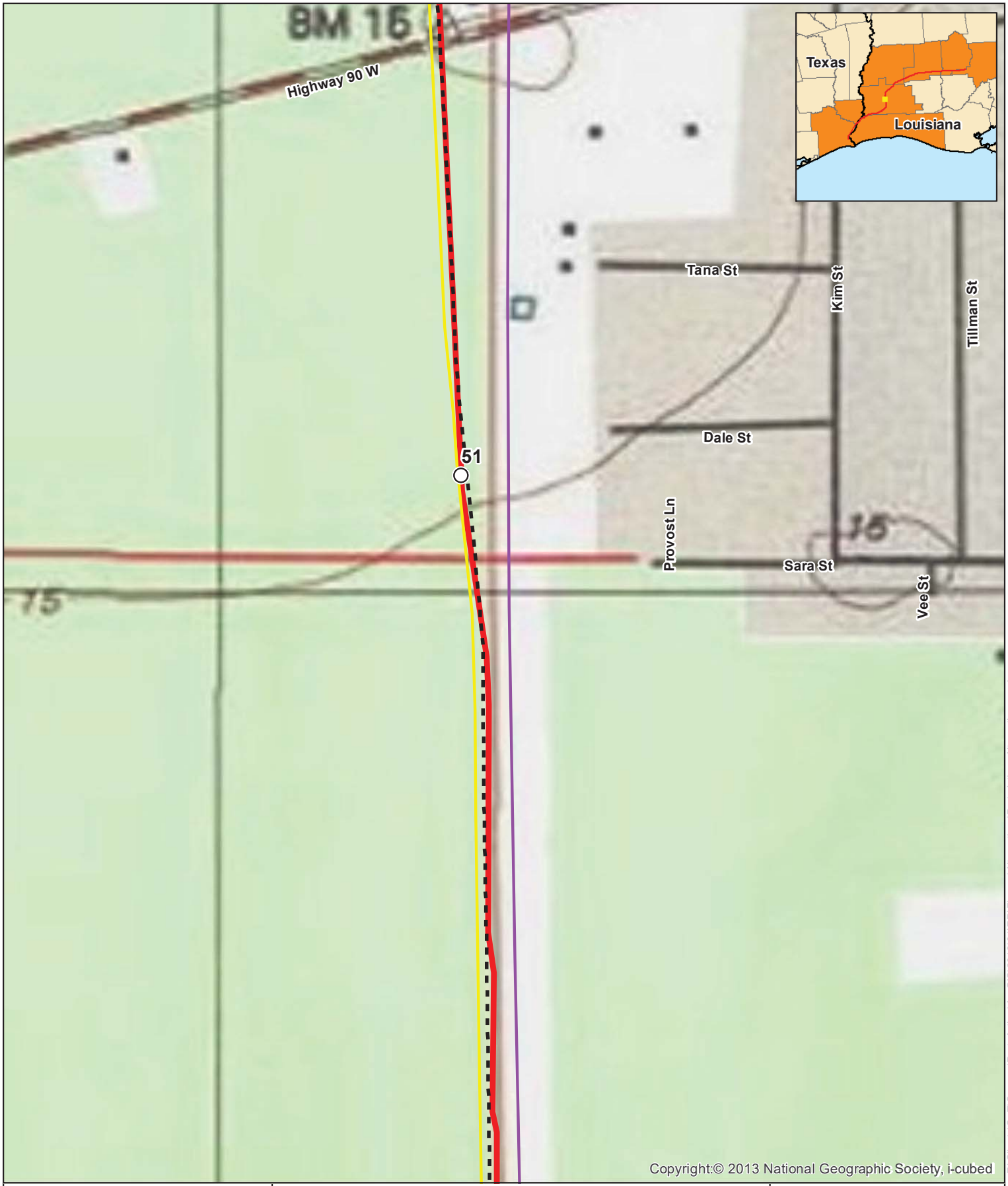
Map 6 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

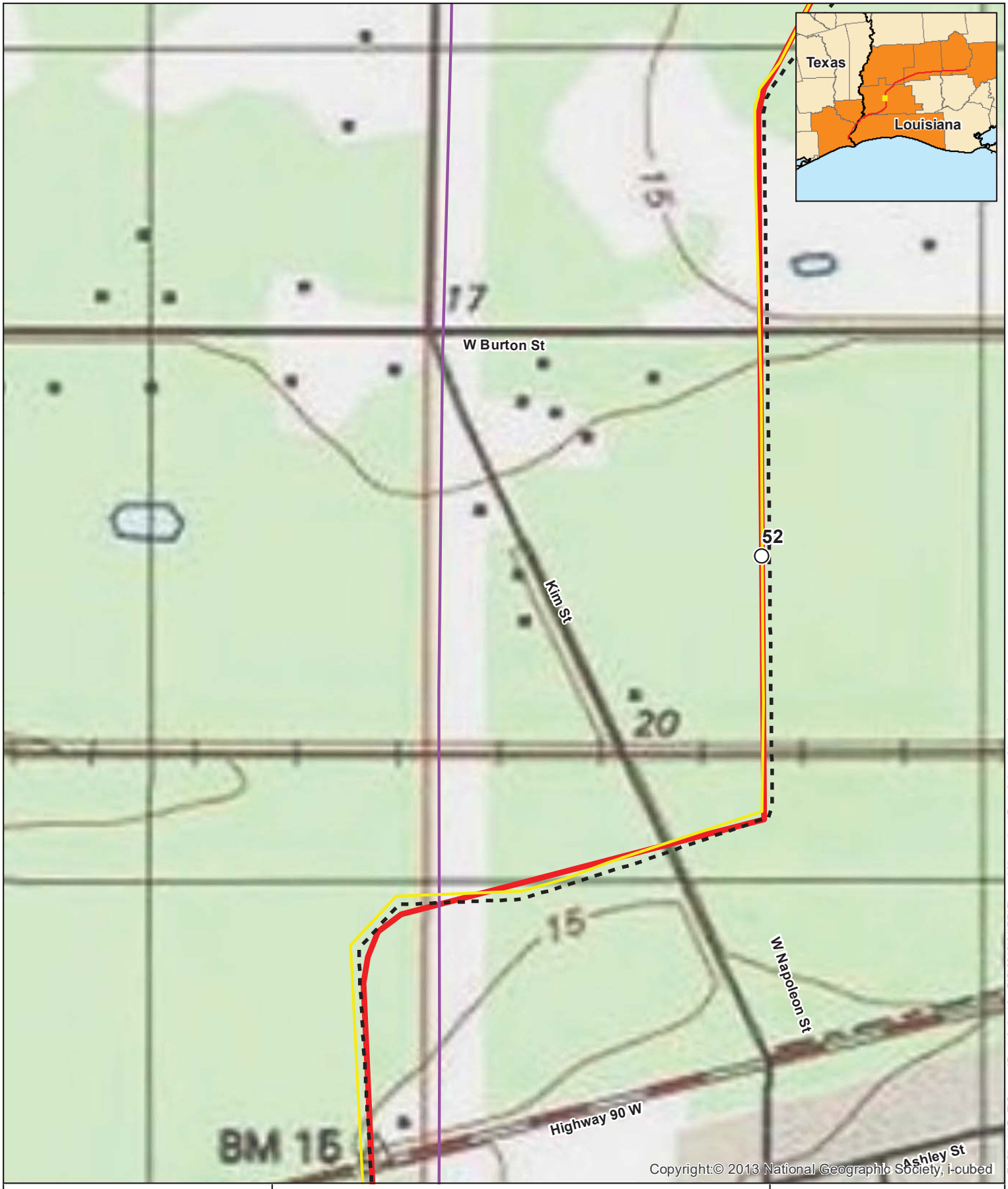
Map 7 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

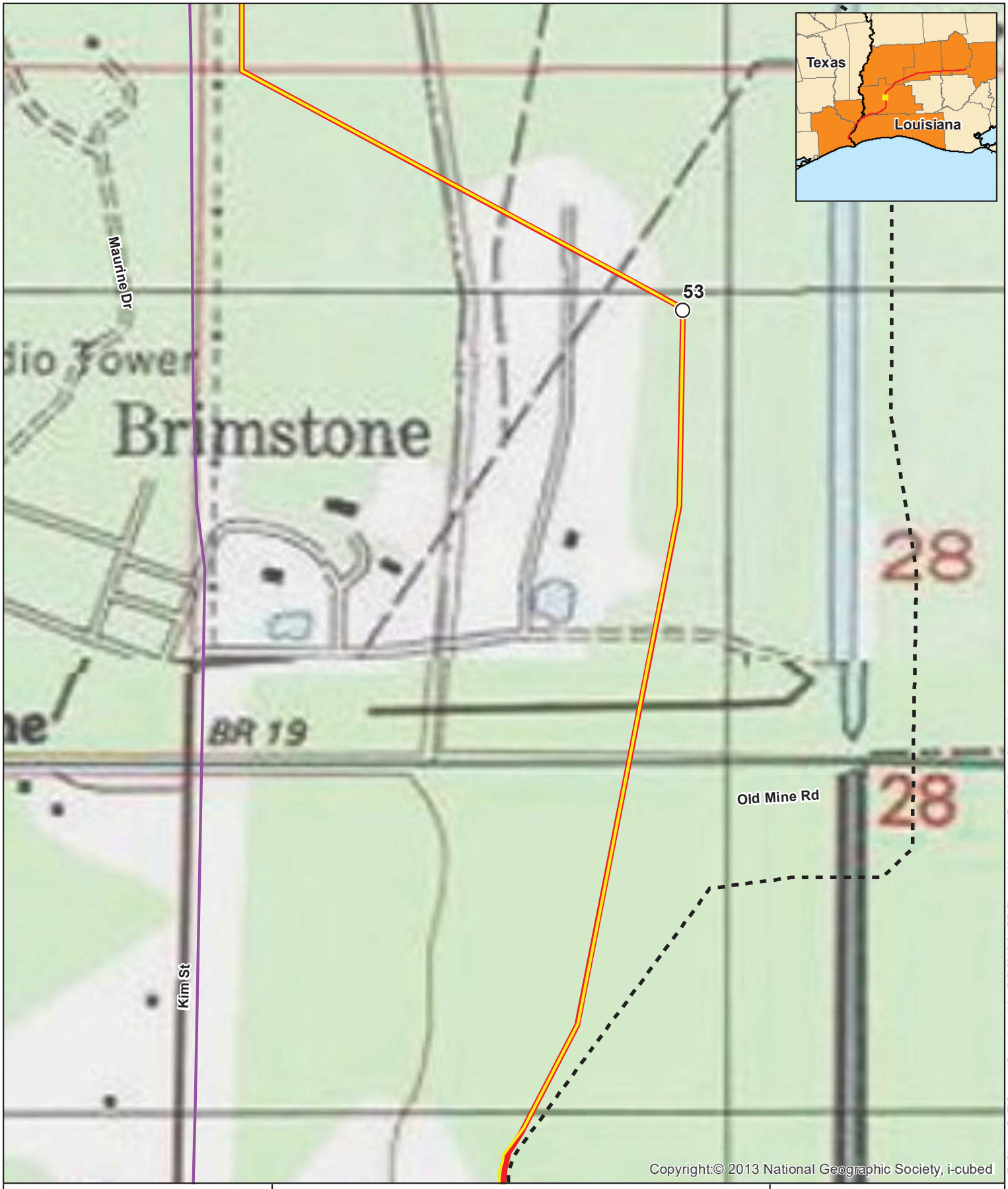
Map 8 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\G_T\SempraPort_Arthur\ArcGIS\20180101RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

Map 9 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)

0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

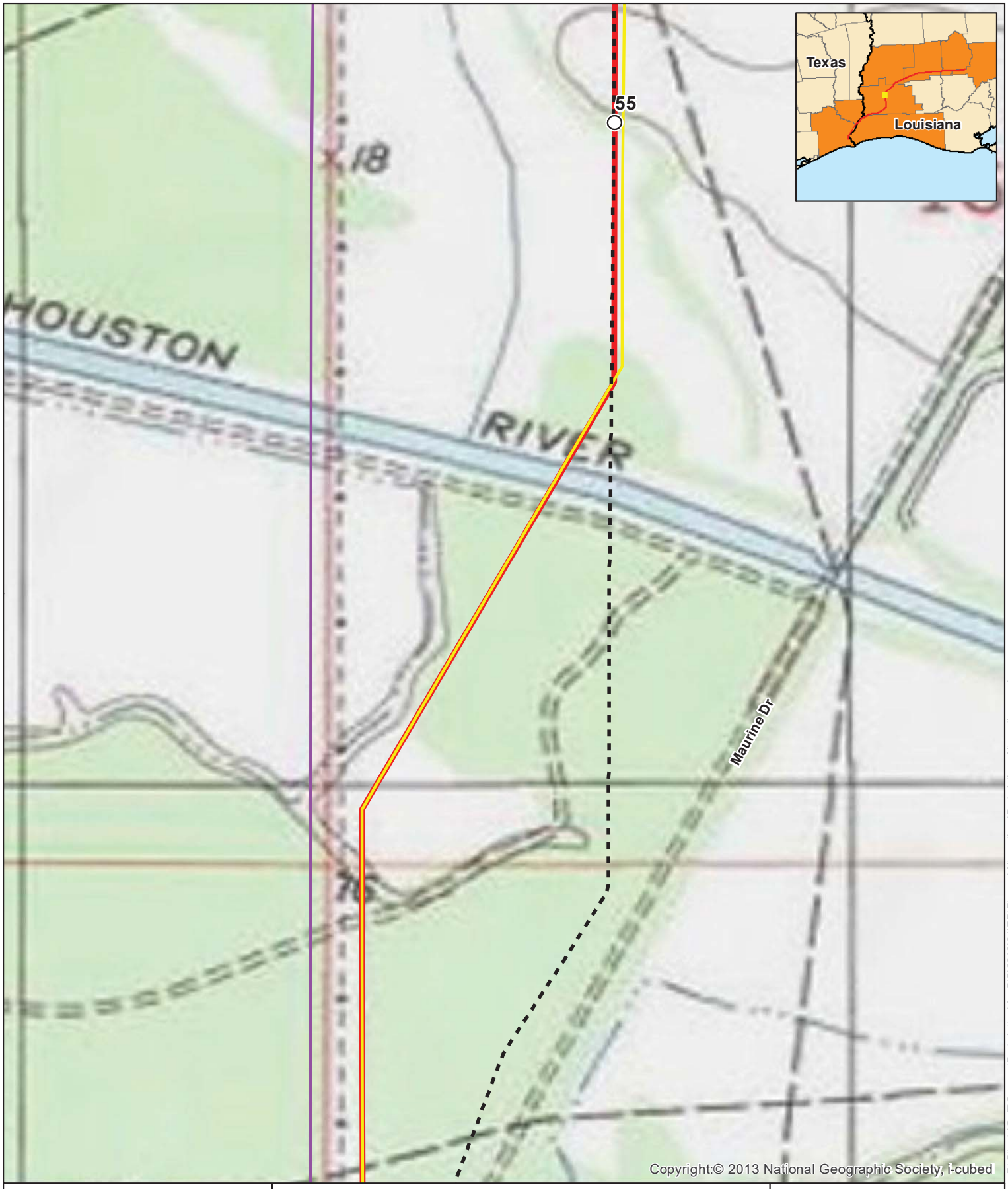
Map 10 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\G_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

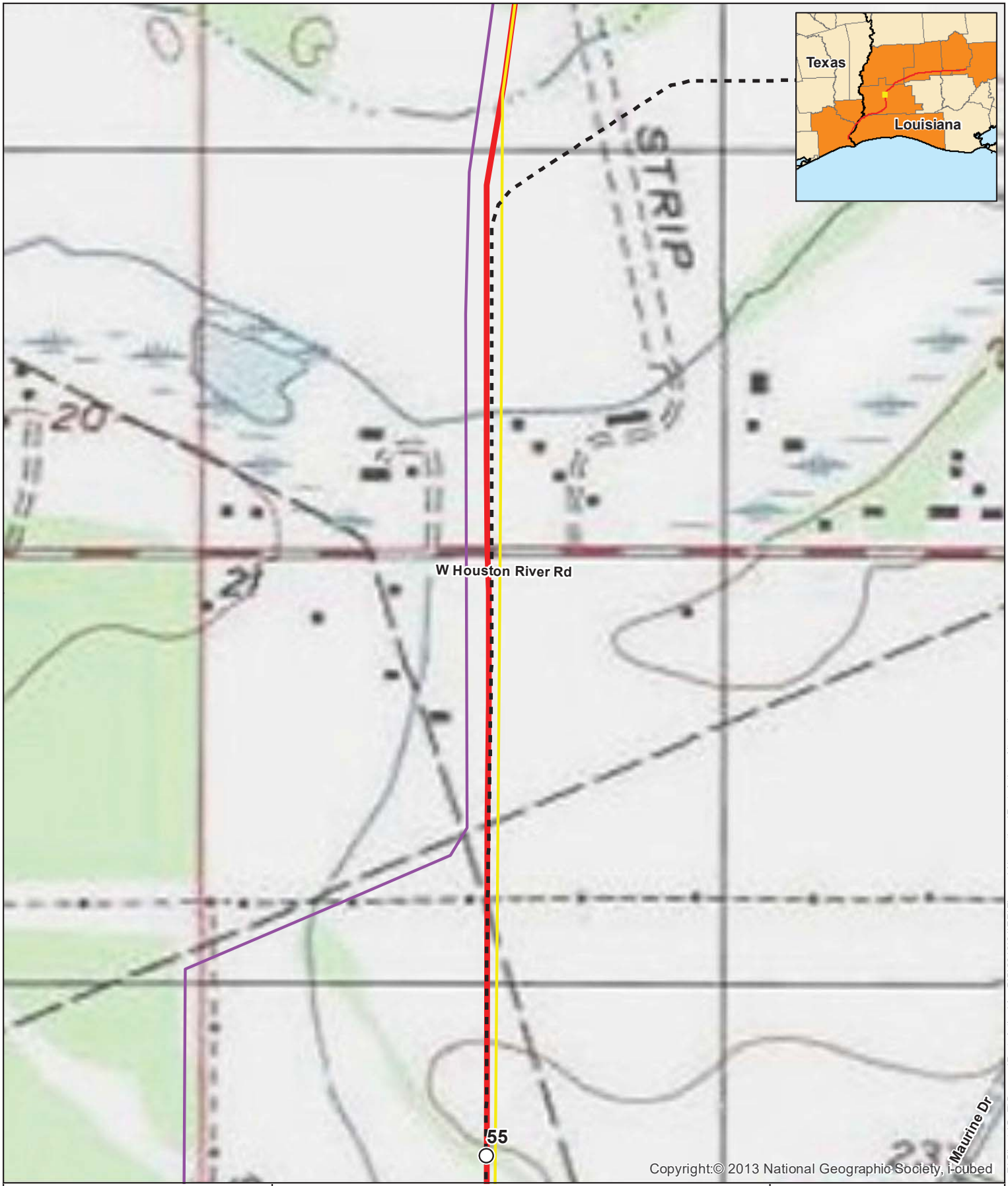
Map 11 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\CA_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

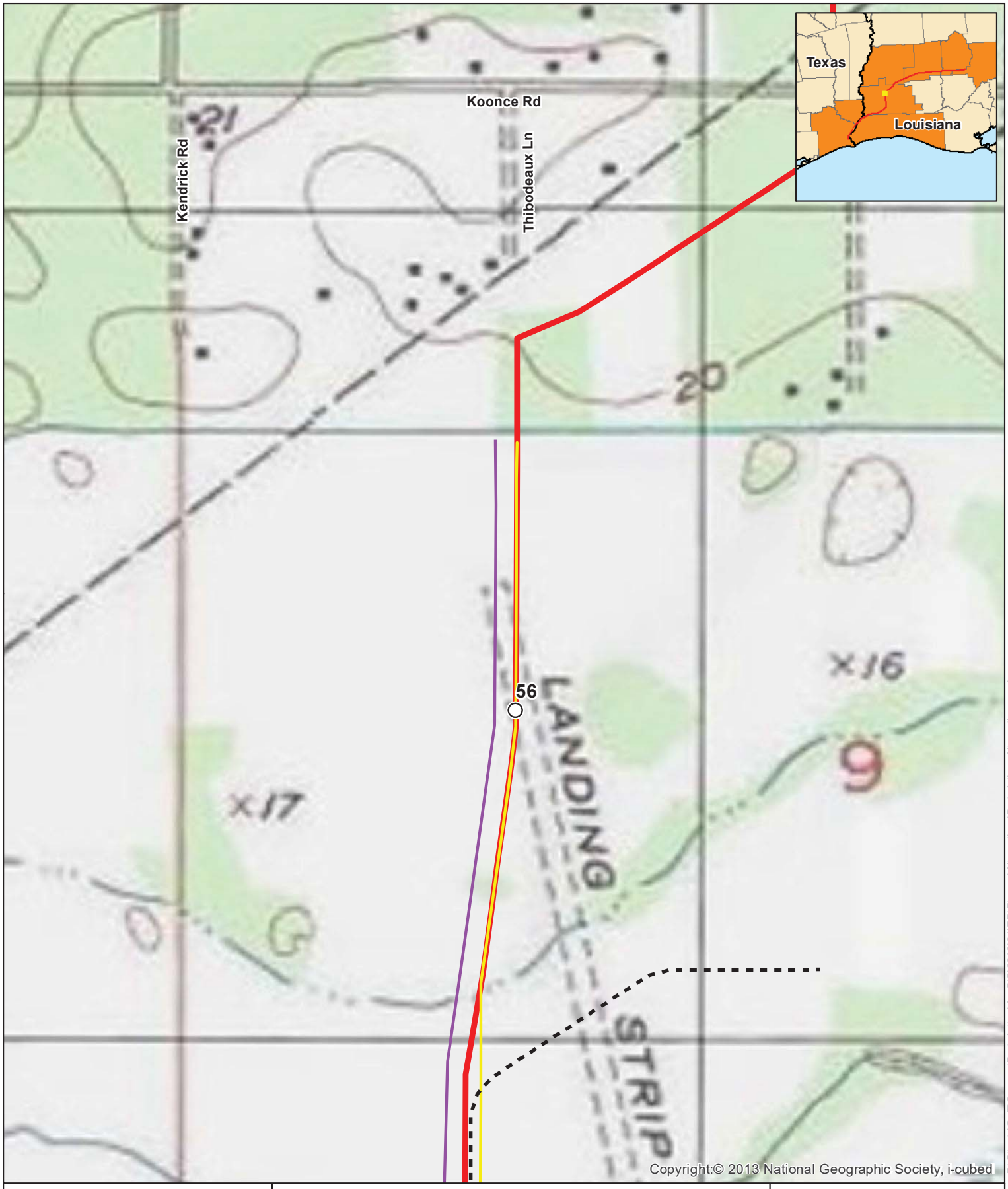
Map 12 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)



0 250 500 Feet

1 inch = 500 feet

N W E S

For Environmental Review Purposes Only

Map 13 of 13

Appendix G
Driftwood Alternative

- Milepost
- LA Connector Project
- Driftwood Route
- Driftwood Alternative
- Existing Sempra CIP Route

Source: Z:\Clients\Q_T\SempraPort_Arthur\ArcGIS\2018\01\RR\Figures\Alternatives\Port_Arthur_Alternatives.mxd

Date: (9/13/2018)

APPENDIX H

MINERAL RESOURCES WITHIN 0.25 MILE OF THE PROJECTS

APPENDIX H

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
TEXAS			
Liquefaction Facility	NA	0.0	Dry Well
	NA	0.0	Dry Well
	NA	0.0	Natural Gas – Abandoned
	NA	0.0	Dry Well
Texas Connector North Pipeline	4.4	185.6	Natural Gas
	6.4	4,726.5	Natural Gas
	6.5	4,855.9	Natural Gas
	6.5	4,880.9	Crude Oil
	9.6	648.7	Crude Oil
	9.6	380.2	Natural Gas
	11.4	2,182.1	Natural Gas
	11.4	2,345.2	Natural Gas
	11.6	2,682.2	Natural Gas
	11.6	478.5	Natural Gas
	12.3	1,148.8	Natural Gas
	12.9	484.3	Natural Gas
	18.9	4,839.2	Crude Oil
	18.9	4,506.2	Crude Oil
	18.9	4,095.2	Crude Oil
	18.9	4,033.5	Crude Oil
	18.9	4,073.5	Crude Oil
	18.9	4,306.4	Crude Oil
	18.9	2,095.5	Crude Oil
	18.9	1,431.5	Crude Oil
	18.9	1,988.7	Crude Oil
	18.9	2,470.0	Crude Oil
	18.9	2,200.7	Crude Oil
	18.9	2,546.6	Crude Oil
	18.9	2,380.6	Crude Oil
	18.9	2,673.3	Crude Oil
	18.9	1,904.5	Crude Oil
	18.9	3,413.1	Crude Oil
	18.9	2,474.9	Crude Oil
	18.9	2,627.3	Crude Oil
	18.9	2,918.3	Crude Oil
	18.9	3,540.5	Crude Oil
	18.9	1,912.3	Crude Oil
	18.9	3,168.1	Crude Oil
	18.9	836.7	Crude Oil
	18.9	4,300.6	Crude Oil
	18.9	1,434.7	Crude Oil
	18.9	4,607.4	Natural Gas
	18.9	4,553.3	Crude Oil
	18.9	3,651.2	Crude Oil
	18.9	3,894.2	Crude Oil
	18.9	4,249.5	Crude Oil
	18.9	3,897.6	Crude Oil
	18.9	3,065.6	Crude Oil
	18.9	2,249.8	Crude Oil
	18.9	3,284.9	Crude Oil
	18.9	2,813.7	Crude Oil
	18.9	2,479.9	Crude Oil

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
	18.9	3,162.7	Crude Oil
	18.9	3,567.2	Crude Oil
	18.9	2,942.8	Crude Oil
	18.9	1,751.6	Crude Oil
	18.9	2,852.1	Crude Oil
	18.9	2,038.3	Crude Oil
	18.9	2,218.6	Crude Oil
	18.9	2,257.3	Crude Oil
	18.9	2,334.5	Crude Oil
	18.9	3,278.6	Natural Gas
	18.9	3,977.2	Crude Oil
	18.9	4,503.9	Crude Oil
	18.9	3,999.6	Crude Oil
	18.9	4,076.8	Crude Oil
	18.9	4,260.0	Crude Oil
	18.9	3,654.5	Crude Oil
	18.9	4,194.4	Crude Oil
	18.9	3,849.3	Crude Oil
	18.9	4,040.3	Crude Oil
	18.9	1,646.0	Crude Oil
	19.0	1,600.3	Crude Oil
	19.0	1,504.7	Crude Oil
	19.0	1,509.2	Crude Oil
	19.0	808.8	Crude Oil
	19.2	757.1	Crude Oil
	19.2	332.4	Crude Oil
	19.2	615.5	Crude Oil
	19.2	1,172.3	Crude Oil
	19.3	931.7	Crude Oil
	19.3	117.1	Crude Oil
	19.3	1,302.7	Crude Oil
	19.3	1,473.7	Crude Oil
	19.3	1,938.1	Crude Oil
	19.3	1,510.7	Crude Oil
	19.3	118.1	Crude Oil
	19.3	1,543.1	Crude Oil
	19.3	1,341.1	Crude Oil
	19.4	1,418.1	Crude Oil
	19.4	1,237.9	Crude Oil
	19.4	408.4	Crude Oil
	19.4	553.5	Crude Oil
	19.4	2,081.3	Crude Oil
	19.4	1,043.1	Crude Oil
	19.4	959.9	Crude Oil
	19.4	2,491.1	Crude Oil
	19.5	452.9	Crude Oil
	19.6	1,042.9	Crude Oil
	19.6	877.8	Crude Oil
	19.6	1,140.6	Crude Oil
	19.6	1,197.5	Crude Oil
	19.6	1,307.1	Crude Oil
	19.6	1,243.8	Crude Oil
	13.0	114	Sand and gravel
	21.1	141	Halite, sulfur, limestone

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
Texas Connector South Pipeline	3.6	1,178.1	Natural Gas
KMPL Lateral	0.0	420.9	Water
FGT Lateral	0.0	416.2	Crude Oil
	0.3	553.3	Crude Oil
	0.4	382.9	Crude Oil
	0.5	1,028.0	Natural Gas and Crude Oil
	0.6	450.9	Crude Oil
	0.6	1,097.5	Natural Gas and Crude Oil
	0.7	1,118.0	Natural Gas and Crude Oil
	0.7	465.2	Natural Gas and Crude Oil
	0.8	951.5	Natural Gas
	0.9	633.4	Natural Gas and Crude Oil
GTS Lateral	0.6	1,281.8	Crude Oil
	0.6	973.9	Crude Oil
	0.6	1,329.8	Crude Oil
	0.6	1,183.7	Crude Oil
	0.7	577.5	Crude Oil
	0.7	1,002.7	Crude Oil
	0.7	798.5	Crude Oil
	0.7	930.7	Crude Oil
	0.7	745.9	Crude Oil
	0.7	876.9	Natural Gas
	0.7	729.8	Crude Oil
	0.7	635.4	Crude Oil
	0.7	376.9	Crude Oil
	1.1	814.8	Crude Oil
	1.2	1,326.5	Crude Oil
	1.2	1,265.9	Crude Oil
	1.3	1,345.1	Crude Oil
	1.3	2,264.4	Crude Oil
	1.3	2,461.6	Crude Oil
	1.3	200.1	Crude Oil
	1.3	2,317.8	Natural Gas
	1.3	582.6	Crude Oil
	1.3	679.9	Crude Oil
	1.3	1,496.1	Crude Oil
	1.3	1,443.7	Crude Oil
	1.3	682.3	Crude Oil
	1.3	1,494.9	Crude Oil
	1.3	1,349.8	Crude Oil
	1.3	4,277.0	Crude Oil
	1.3	4,482.1	Crude Oil
	1.3	4,352.8	Crude Oil
	1.3	4,394.9	Crude Oil
	1.3	888.2	Crude Oil
	1.3	4,629.6	Crude Oil
	1.3	720.6	Crude Oil
	1.3	4,661.5	Crude Oil
	1.3	4,462.6	Crude Oil
	1.3	4,321.3	Crude Oil
	1.3	1,403.2	Crude Oil
	1.3	1,281.1	Crude Oil
	1.3	764.0	Crude Oil
	1.3	1,320.0	Crude Oil
	1.3	1,229.5	Crude Oil

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
	1.3	1,676.6	Crude Oil
	1.3	808.9	Crude Oil
	1.3	1,728.5	Crude Oil
	1.3	970.5	Crude Oil
	1.3	814.2	Crude Oil
	1.3	1,570.9	Crude Oil
	1.3	877.2	Crude Oil
	1.3	1,457.2	Crude Oil
	1.3	1,659.6	Crude Oil
	1.3	1,777.6	Crude Oil
	1.3	1,467.6	Crude Oil
	1.3	1,507.3	Crude Oil
	1.3	823.7	Crude Oil
	1.3	1,746.3	Crude Oil
	1.3	734.3	Crude Oil
	1.3	711.8	Crude Oil
	1.3	1,416.0	Crude Oil
	1.3	1,629.3	Crude Oil
	1.3	1,466.0	Crude Oil
	1.3	1,351.1	Crude Oil
	1.3	1,590.9	Crude Oil
	1.3	1,643.7	Crude Oil
	1.3	696.1	Crude Oil
	1.3	1,351.1	Crude Oil
	1.3	1,532.6	Crude Oil
	1.3	1,574.2	Crude Oil
	1.3	1,379.7	Crude Oil
	1.3	1,470.0	Crude Oil
	1.3	1,611.8	Crude Oil
	1.3	1,614.5	Crude Oil
	1.3	1,566.0	Crude Oil
	1.3	1,152.2	Crude Oil
	1.3	1,402.9	Crude Oil
	1.3	1,369.4	Crude Oil
	1.3	1,157.0	Crude Oil
	1.3	4,123.2	Crude Oil
	1.3	4,226.8	Crude Oil
	1.3	4,368.2	Crude Oil
	1.3	3,953.9	Crude Oil
	1.3	1,985.4	Crude Oil
	1.3	4,319.3	Crude Oil
	1.3	1,590.8	Crude Oil
HPL Lateral	0.0	1,179.4	Crude Oil
Non-jurisdictional Facilities	NA	NA	NA
Louisiana Connector			
TETCO Lateral	0.0	338.7	Unknown
	0.0	1,224.4	Crude Oil
	0.1	361.1	Crude Oil
LOUISIANA			
Texas Connector South Pipeline	0.2	917.2	Natural Gas
	0.2	875.3	Natural Gas
Louisiana Connector Mainline	19.0	1,291.6	Unknown

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
	29.7	699.8	Unknown
	32.9	548.3	Unknown
	33.1	274.7	Unknown
	38.8	813.2	Unknown
	39.1	1,179.9	Unknown
	39.2	837.1	Natural Gas
	39.2	1,129.1	Unknown
	40.2	74.3	Unknown
	41.5	1,120.0	Unknown
	43.1	1,171.8	Unknown
	47.6	1,122.1	Unknown
	48.1	554.9	Unknown
	48.4	676.5	Unknown
	51.6	899.6	Unknown
	51.8	173.3	Unknown
	53.1	1,010.5	Crude Oil
	53.4	1,196.3	Unknown
	53.4	620.5	Crude Oil
	53.5	1,187.1	Crude Oil
	53.5	964.4	Natural Gas
	54.7	124.0	Unknown
	56.6	915.9	Unknown
	56.6	901.7	Unknown
	57.3	192.1	Unknown
	57.6	519.9	Unknown
	57.9	1,055.9	Unknown
	59.4	958.7	Unknown
	61.6	416.2	Unknown
	61.6	788.3	Unknown
	63.2	1,085.1	Unknown
	64.1	435.6	Unknown
	64.5	727.7	Natural Gas
	64.6	586.9	Crude Oil
	64.7	1,064.9	Unknown
	64.8	1,027.7	Unknown
	65.1	351.3	Unknown
	66.4	265.2	Unknown
	67.4	231.3	Unknown
	67.6	1,129.0	Unknown
	70.5	732.9	Unknown
	71.4	656.8	Crude Oil
	71.4	658.6	Unknown
	72.6	505.7	Unknown
	73.3	896.7	Unknown
	73.3	832.4	Unknown
	74.0	110.7	Unknown
	76.4	143.3	Unknown
	78.1	1,085.6	Unknown
	78.2	1,020.4	Natural Gas

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
	79.3	48.4	Unknown
	80.7	363.2	Unknown
	80.8	899.1	Unknown
	81.5	312.2	Unknown
	81.8	2.5	Crude Oil
	81.8	1,209.4	Unknown
	82.0	19.3	Crude Oil
	82.2	150.7	Natural Gas
	82.4	410.8	Crude Oil
	82.7	915.1	Crude Oil
	83.0	1,027.5	Crude Oil
	83.0	229.3	Crude Oil
	83.5	1,308.7	Unknown
	83.5	653.4	Crude Oil
	83.7	724.0	Crude Oil
	84.1	211.0	Unknown
	84.2	1,222.4	Unknown
	84.4	408.5	Unknown
	84.5	1,289.1	Unknown
	84.8	1,107.2	Unknown
	85.2	915.9	Crude Oil
	85.7	902.4	Unknown
	85.9	278.6	Natural Gas
	86.0	699.9	Natural Gas
	86.1	512.6	Unknown
	86.2	329.2	Natural Gas
	86.3	508.6	Natural Gas
	86.4	1,208.0	Natural Gas
	86.5	337.8	Unknown
	86.5	176.3	Unknown
	86.6	876.6	Unknown
	86.6	852.1	Crude Oil
	86.6	408.5	Natural Gas
	86.7	683.5	Crude Oil
	86.8	799.5	Unknown
	86.8	185.5	Natural Gas
	86.9	506.2	Unknown
	87.0	606.0	Unknown
	87.2	334.1	Unknown
	87.2	104.7	Natural Gas
	87.4	898.1	Natural Gas
	88.0	500.6	Unknown
	92.1	830.3	Natural Gas
	100.3	845.8	Unknown
	105.2	617.3	Unknown
	106.2	1,201.2	Unknown
	107.2	1,306.5	Unknown
	109.9	807.2	Unknown
	110.8	928.0	Unknown

APPENDIX H (cont'd)

Mineral Resources within 0.25 mile of the Projects

Project, State, Component	Milepost (mile) [a]	Distance from Project (mile)	Resource Type
	111.6	61.9	Unknown
	112.1	904.7	Natural Gas
	112.5	1,195.2	Unknown
	113.1	918.6	Unknown
	113.4	364.8	Unknown
	114.2	429.0	Unknown
	114.2	625.8	Unknown
	114.7	140.8	Unknown
	114.7	618.3	Unknown
	114.9	751.2	Crude Oil
	114.9	549.6	Crude Oil
	115.1	467.3	Unknown
	115.1	488.0	Unknown
	115.4	943.3	Natural Gas
	115.7	1,230.3	Unknown
	117.5	1,034.5	Unknown
	120.3	657.4	Unknown
	121.7	82.9	Unknown
	124.0	306.5	Unknown
	125.1	670.7	Unknown
	125.2	1,153.0	Unknown
	126.4	847.7	Unknown
	127.5	1,195.1	Unknown
	127.7	136.1	Unknown
	127.7	389.9	Natural Gas
	127.8	852.0	Unknown
	127.9	1,313.8	Unknown
	128.2	238.8	Unknown
	128.2	1,256.9	Unknown
	130.4	961.7	Unknown

Source: USGS, 2016b.

APPENDIX I

SURFACE WATERBODIES CROSSED BY THE TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS

SURFACE WATERBODIES CROSSED BY THE TEXAS CONNECTOR PROJECT

APPENDIX I.1

Surface Waterbodies Crossed by the Texas Connector Project

County/Parish, State, Milepost	Waterbody Name	Flow Type [a]	Crossing Length (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Crossing Method
Northern Pipeline						
Jefferson County, Texas						
1.7	Intracoastal Waterway	E	425.9	PCR1, H	WWMF	HDD
1.6	Intracoastal Waterway	E	441.9	PCR1, H	WWMF	HDD
2.5	Taylor Bayou	P	790.5	PCR1, H	WWMF	HDD
2.8	Unnamed	P	54.8	NA	WWFF	Push
2.9	Unnamed	P	47.1	NA	WWFF	Push
5.0	Unnamed	P	1,133.6	NA	WWFF	HDD
5.3	Unnamed	P	74.0	NA	WWFF	HDD
5.3	Unnamed	P	63.6	NA	WWFF	HDD
5.6	Unnamed	P	29.0	NA	WWFF	HDD
5.7	Unnamed	P	51.4	NA	WWFF	HDD
7.9	Unnamed	E	23.9	NA	WWFF	HDD
8.4	Unnamed	E	10.3	NA	WWFF	HDD
8.6	Unnamed	P	1,566.4	NA	WWFF	HDD
8.9	Unnamed	P	35.6	NA	WWFF	HDD
9.9	Unnamed	P	19.0	NA	WWFF	Open Cut
10.2	Taylor Bayou	P	375.1	PCR1, I	WWFF	HDD
10.9	Unnamed	P	79.5	NA	WWFF	HDD
11.0	Unnamed	I	15.2	NA	WWFF	Open Cut
11.7	Unnamed	P	75.0	NA	WWFF	HDD
11.8	Unnamed	P	569.9	NA	WWFF	HDD
12.0	Hillebrandt Bayou	P	394.6	PCR1, I	WWFF	HDD
12.0	Unnamed	P	29.7	NA	WWFF	HDD
12.4	Unnamed	P	41.5	NA	WWFF	Open Cut
12.7	Unnamed	I	30.2	NA	WWFF	Open Cut
13.2	Unnamed	P	52.2	NA	WWFF	HDD
14.0	Unnamed	E	49.2	NA	WWFF	Open Cut
14.3	Gallier Canal	P	59.0	NA	WWFF	HDD
14.5	Unnamed	E	617.3	NA	WWFF	Open Cut
16.5	Unnamed	E	14.1	NA	WWFF	Open Cut
16.9	Unnamed	P	63.6	NA	WWFF	Open Cut
17.1	Unnamed	E	5.0	NA	WWFF	HDD
17.8	Unnamed	P	11.1	NA	WWFF	HDD
18.3	Unnamed	P	18.1	NA	WWFF	HDD
19.3	Unnamed	E	6.0	NA	WWFF	Open Cut
19.3	Unnamed	E	4.0	NA	WWFF	Open Cut
19.4	Unnamed	P	54.1	NA	WWFF	Open Cut
19.7	Unnamed	P	79.4	NA	WWFF	HDD
19.8	Unnamed	P	85.13	NA	WWFF	HDD
Orange County, Texas						
22.1	Neches River	P	873.7	PCR1, I	WWMF	HDD
25.6	Unnamed	I	60.4	NA	WWFF	HDD
26.4	Unnamed	I	5.0	NA	WWFF	Bore
26.4	Unnamed	I	5.0	NA	WWFF	Bore

APPENDIX I.1 (cont'd)

Surface Waterbodies Crossed by the Texas Connector Project

County/Parish, State, Milepost	Waterbody Name	Flow Type [a]	Crossing Length (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Crossing Method
Southern Pipeline						
Jefferson County, Texas						
0.3	Unnamed	P	132.5	NA	WWMF	HDD
2.4	Unnamed	P	365.3	NA	WWMF	HDD
4.2	Unnamed	P	58.4	NA	WWMF	Push
4.3	Unnamed	P	42.1	NA	WWMF	Push
6.6	Sabine Pass	P	4,325.9	PCR, E/O	WWMF	HDD
Cameron Parish, Louisiana						
7.3	Unnamed	P	43.1	NA	WWMF	HDD
FGT Lateral						
Orange County, Texas						
0.3	Unnamed	E	2.0	NA	WWFF	Bore
0.3	Unnamed	E	2.0	NA	WWFF	Bore
0.9	Unnamed	P	21.8	NA	WWFF	HDD
1.4	Unnamed	I	17.5	NA	WWFF	Open Cut
GTS/CIPCO Lateral						
Jefferson County, Texas						
0.6	Unnamed	P	103.0	NA	WWFF	HDD
0.9	Unnamed	P	64.2	NA	WWFF	HDD
1.2	Unnamed	P	705.9	NA	WWFF	Open Cut

[a] Flow Type:
P = Perennial
I = Intermittent
E = Ephemeral

[b] 2014 Texas Water Quality Standards
E = Exceptional Aquatic Life Use
H = High Aquatic Life Use
I = Intermediate Aquatic Life Use
NA = Not Applicable (Unclassified by TCEQ)
O = Oyster Waters
PCR = Primary Contact Recreation

[c] WWMF = Warm Water Marine Fishery
WWFF = Warm Water Freshwater Fishery

[d] ATWS within 50 feet of the water's edge.

SURFACE WATERBODIES CROSSED BY THE LOUISIANA CONNECTOR PROJECT

APPENDIX I.2

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
Jefferson County, Texas								
0.20	JEF-WB-001	Sabine-Neches Canal	P	1,402.4	A,C	Saltwater Fishery	HDD	Major
0.62	JEF-WB-002	Unnamed Waterbody	I	123.8	N/A	Saltwater Fishery	HDD	Major
0.66	JEF-WB-003	Unnamed Waterbody	E	28.5	N/A	Saltwater Fishery	HDD	Intermediate
0.69	JEF-WB-004	Sabine Lake	OW	1,571.6	A,B,C,E	Saltwater Fishery	HDD	Major
0.98	JEF-WB-004	Sabine Lake	OW	64,626.2	A,B,C,E	Saltwater Fishery	HDD	Major
3.71	JEF-WB-004	Sabine Lake	OW	0.0	A,B,C,E	Saltwater Fishery	Barge Lay	Minor
Orange County, Texas								
13.22	ORA-WB-001	Sabine River	OW	18,888.2	A,B,C,E	Saltwater Fishery	Barge Lay	Major
Cameron Parish, Louisiana								
16.79	CAM-WB-001	Sabine River	OW	5,831.9	A,B,C,E	Saltwater Fishery	Barge Lay	Major
17.63	CAM-WB-001	East Pass	OW	5,831.9	N/A	Saltwater Fishery	HDD	Major
18.92	CAM-WB-002	East Pass	P	620.2	N/A	Saltwater Fishery	HDD	Major
19.36	CAM-WB-003	Unnamed Waterbody	P	48.6	N/A	Saltwater Fishery	Push	Intermediate
20.35	CAM-WB-004	Unnamed Waterbody	P	73.1	N/A	Saltwater Fishery	Push	Intermediate
20.63	CAM-WB-005	Unnamed Waterbody	P	99.3	N/A	Saltwater Fishery	Push	Intermediate
20.86	CAM-WB-006	Unnamed Waterbody	P	385.8	N/A	Saltwater Fishery	Push	Major
21.17	CAM-WB-007	Unnamed Waterbody	P	42.9	N/A	Saltwater Fishery	Push	Intermediate
21.29	CAM-WB-008	Unnamed Waterbody	P	23.5	N/A	Saltwater Fishery	Push	Intermediate
21.66	CAM-WB-009	Unnamed Waterbody	P	47.9	N/A	Saltwater Fishery	Push	Intermediate
21.88	CAM-WB-010	Unnamed Waterbody	P	36.7	N/A	Saltwater Fishery	Push	Intermediate
22.07	CAM-WB-011	Unnamed Waterbody	P	14.2	N/A	Saltwater Fishery	Push	Intermediate
22.33	CAM-WB-012	Unnamed Waterbody	P	306.6	N/A	Saltwater Fishery	Push	Major
22.60	CAM-WB-013	Unnamed Waterbody	OW	541.4	N/A	Saltwater Fishery	Push	Major
22.81	CAM-WB-014	Unnamed Waterbody	OW	2,130.9	N/A	Saltwater Fishery	Push	Major
23.38	CAM-WB-015	Unnamed Waterbody	OW	347.8	N/A	Saltwater Fishery	Push	Major
23.57	CAM-WB-018	Unnamed Waterbody	OW	1,166.7	N/A	Saltwater Fishery	Push	Major

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
23.83	CAM-WB-019	Unnamed Waterbody	OW	996.3	N/A	Saltwater Fishery	Push	Major
24.07	CAM-WB-020	Unnamed Waterbody	OW	350.5	N/A	Saltwater Fishery	Push	Major
24.38	CAM-WB-023	Unnamed Waterbody	OW	1,990.9	N/A	Saltwater Fishery	Push	Major
25.19	CAM-WB-026	Unnamed Waterbody	OW	57.0	N/A	Saltwater Fishery	Push	Intermediate
26.71	CAM-WB-027	Unnamed Waterbody	P	31.8	N/A	Saltwater Fishery	HDD	Intermediate
Calcasieu Parish, Louisiana								
27.85	CAL-WB-001	Intracoastal Waterway	P	899.1	N/A	Saltwater Fishery	HDD	Major
28.55	CAL-WB-004	Unnamed Waterbody	OW	479.9	N/A	Saltwater Fishery	Push	Major
28.68	CAL-WB-005	Unnamed Waterbody	OW	118.1	N/A	Saltwater Fishery	Push	Major
30.50	CAL-WB-006	Unnamed Waterbody	P	19.6	N/A	Saltwater Fishery	Push	Intermediate
30.56	CAL-WB-007	Unnamed Waterbody	P	129.4	N/A	Saltwater Fishery	Push	Major
30.67	CAL-WB-008	Unnamed Waterbody	P	38.4	N/A	Saltwater Fishery	HDD	Intermediate
30.68	CAL-WB-009	Unnamed Waterbody	P	38.9	N/A	Saltwater Fishery	HDD	Intermediate
30.75	CAL-WB-010	Vinton Drainage Canal	P	246.8	A,B,C	Saltwater Fishery	HDD	Major
33.66	CAL-WB-011	Unnamed Waterbody	P	27.0	N/A	Saltwater Fishery	Push	Intermediate
34.72	CAL-WB-012	Unnamed Waterbody	P	44.9	N/A	Warm Water Fishery	Open Cut	Intermediate
35.04	CAL-WB-013	Unnamed Waterbody	P	13.1	N/A	Warm Water Fishery	Bore	Intermediate
35.05	CAL-WB-014	Unnamed Waterbody	P	14.1	N/A	Warm Water Fishery	Bore	Intermediate
36.37	CAL-WB-015	Unnamed Waterbody	P	23.3	N/A	Warm Water Fishery	Open Cut	Intermediate
36.74	CAL-WB-016	Unnamed Waterbody	I	41.3	N/A	Warm Water Fishery	Open Cut	Intermediate
37.43	CAL-WB-017	Unnamed Waterbody	P	43.3	N/A	Warm Water Fishery	Open Cut	Intermediate
37.47	CAL-WB-018	Unnamed Waterbody	P	13.3	N/A	Warm Water Fishery	Open Cut	Intermediate
38.72	CAL-WB-019	Unnamed Waterbody	P	32.5	N/A	Warm Water Fishery	HDD	Intermediate
38.80	CAL-WB-020	Unnamed Waterbody	P	46.5	N/A	Warm Water Fishery	HDD	Intermediate
38.81	CAL-WB-021	Unnamed Waterbody	P	21.5	N/A	Warm Water Fishery	HDD	Intermediate
38.90	CAL-WB-022	Unnamed Waterbody	P	25.8	N/A	Warm Water Fishery	HDD	Intermediate

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
39.63	CAL-WB-025	Unnamed Waterbody	P	125.5	N/A	Warm Water Fishery	Open Cut	Major
39.87	CAL-WB-026	Unnamed Waterbody	I	30.7	N/A	Warm Water Fishery	Open Cut	Intermediate
40.25	CAL-WB-028	Unnamed Waterbody	P	188.6	N/A	Warm Water Fishery	HDD	Major
40.34	CAL-WB-029	Unnamed Waterbody	P	32.8	N/A	Warm Water Fishery	HDD	Intermediate
40.43	CAL-WB-031	Unnamed Waterbody	P	30.4	N/A	Warm Water Fishery	HDD	Intermediate
42.04	CAL-WB-032	Unnamed Waterbody	I	19.8	N/A	Warm Water Fishery	HDD	Intermediate
42.35	CAL-WB-033	Bayou Choupique	P	156.9	A,B,C	Warm Water Fishery	HDD	Major
42.88	CAL-WB-034	Unnamed Waterbody	E	27.0	N/A	Warm Water Fishery	Open Cut	Intermediate
43.17	CAL-WB-035	Unnamed Waterbody	P	44.3	N/A	Warm Water Fishery	Open Cut	Intermediate
43.28	CAL-WB-036	Unnamed Waterbody	P	49.9	N/A	Warm Water Fishery	Open Cut	Intermediate
43.58	CAL-WB-037	Unnamed Waterbody	E	22.7	N/A	Warm Water Fishery	Open Cut	Intermediate
44.64	CAL-WB-038	Unnamed Waterbody	I	0.0	N/A	Warm Water Fishery	Bore	Minor
44.81	CAL-WB-039	Unnamed Waterbody	I	0.0	N/A	Warm Water Fishery	Bore	Minor
45.56	CAL-WB-040	Unnamed Waterbody	I	231.2	N/A	Warm Water Fishery	Open Cut	Major
47.29	CAL-WB-041	Unnamed Waterbody	E	49.8	N/A	Warm Water Fishery	Open Cut	Intermediate
47.70	CAL-WB-042	Unnamed Waterbody	E	115.6	N/A	Warm Water Fishery	HDD	Major
48.11	CAL-WB-043	Unnamed Waterbody	E	9.0	N/A	Warm Water Fishery	Open Cut	Minor
48.40	CAL-WB-046	Unnamed Waterbody	P	0.0	N/A	Warm Water Fishery	HDD	Minor
48.41	CAL-WB-046	Unnamed Waterbody	E	25.7	N/A	Warm Water Fishery	HDD	Intermediate
48.44	CAL-WB-047	Unnamed Waterbody	E	12.9	N/A	Warm Water Fishery	HDD	Intermediate
48.51	CAL-WB-049	Unnamed Waterbody	E	11.2	N/A	Warm Water Fishery	Open Cut	Intermediate
52.64	CAL-WB-051	Unnamed Waterbody	E	27.8	N/A	Warm Water Fishery	Open Cut	Intermediate
53.19	CAL-WB-052	Unnamed Waterbody	E	25.1	N/A	Warm Water Fishery	Open Cut	Intermediate
53.96	CAL-WB-053	Unnamed Waterbody	E	34.9	N/A	Warm Water Fishery	Open Cut	Intermediate
53.98	CAL-WB-054	Unnamed Waterbody	E	53.5	N/A	Warm Water Fishery	Open Cut	Intermediate
54.68	CAL-WB-056	Unnamed Waterbody	E	13.4	N/A	Warm Water Fishery	HDD	Intermediate

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
54.70	CAL-WB-057	Houston River Canal	P	122.5	N/A	Warm Water Fishery	HDD	Major
54.74	CAL-WB-058	Unnamed Waterbody	E	14.4	A,B,C,F	Warm Water Fishery	HDD	Intermediate
55.76	CAL-WB-059	Unnamed Waterbody	E	30.9	N/A	Warm Water Fishery	Open Cut	Intermediate
56.90	CAL-WB-060	Houston River	P	132.1	A,B,C,F	Warm Water Fishery	HDD	Major
58.52	CAL-WB-061	Unnamed Waterbody	I	29.0	N/A	Warm Water Fishery	Open Cut	Intermediate
59.27	CAL-WB-063	Unnamed Waterbody	I	20.8	N/A	Warm Water Fishery	Open Cut	Intermediate
59.84	CAL-WB-064	Unnamed Waterbody	E	12.1	N/A	Warm Water Fishery	HDD	Intermediate
60.64	CAL-WB-065	Little River	P	41.1	A,B,C	Warm Water Fishery	HDD	Intermediate
60.93	CAL-WB-066	Unnamed Waterbody	I	8.1	N/A	Warm Water Fishery	Open Cut	Minor
61.92	CAL-WB-067	Unnamed Waterbody	E	27.5	N/A	Warm Water Fishery	Open Cut	Intermediate
62.73	CAL-WB-068	Unnamed Waterbody	I	35.5	N/A	Warm Water Fishery	Open Cut	Intermediate
63.88	CAL-WB-069	Unnamed Waterbody	E	7.6	N/A	Warm Water Fishery	HDD	Minor
64.05	CAL-WB-070	Beckwith Creek [f]	P	122.6	A,B,C,F	Warm Water Fishery	HDD	Major
65.13	CAL-WB-071	Unnamed Waterbody	I	140.9	N/A	Warm Water Fishery	HDD	Major
65.27	CAL-WB-071	Hickory Branch [f]	P	140.9	A,B,C,F	Warm Water Fishery	HDD	Major
65.59	CAL-WB-072	Unnamed Waterbody	I	59.2	N/A	Warm Water Fishery	Open Cut	Intermediate
66.14	CAL-WB-073	Unnamed Waterbody	E	28.1	N/A	Warm Water Fishery	Open Cut	Intermediate
Beauregard Parish, Louisiana								
67.89	BEA-WB-002	Unnamed Waterbody	E	4.9	N/A	Warm Water Fishery	Open Cut	Minor
67.93	BEA-WB-003	Unnamed Waterbody	E	4.1	N/A	Warm Water Fishery	Open Cut	Minor
67.97	BEA-WB-004	Unnamed Waterbody	E	11.2	N/A	Warm Water Fishery	Open Cut	Intermediate
68.12	BEA-WB-005	Unnamed Waterbody	E	0.0	N/A	Warm Water Fishery	ATWS	Minor
69.78	BEA-WB-007	Indian Bayou	P	15.3	A,B,C,F	Warm Water Fishery	Open Cut	Intermediate
70.62	BEA-WB-009	Unnamed Waterbody	I	10.8	N/A	Warm Water Fishery	Bore	Intermediate
71.06	BEA-WB-012	Unnamed Waterbody	I	7.9	N/A	Warm Water Fishery	Open Cut	Minor
73.24	BEA-WB-014	Marsh Bayou	P	22.1	A,B,C	Warm Water Fishery	Open Cut	Intermediate
73.57	BEA-WB-015	Unnamed Waterbody	E	2.2	N/A	Warm Water Fishery	Open Cut	Minor

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
76.57	BEA-WB-019	Unnamed Waterbody	E	7.8	N/A	Warm Water Fishery	Open Cut	Minor
Allen Parish, Louisiana								
79.13	ALL-WB-001	Barnes Creek [f]	P	42.4	A,B,C	Warm Water Fishery	HDD	Intermediate
79.28	ALL-WB-002	Unnamed Waterbody	I	3.7	N/A	Warm Water Fishery	HDD	Minor
82.07	ALL-WB-003	Unnamed Waterbody	E	13.3	N/A	Warm Water Fishery	Open Cut	Intermediate
82.12	ALL-WB-004	Unnamed Waterbody	I	26.5	N/A	Warm Water Fishery	Open Cut	Intermediate
82.19	ALL-WB-005	Unnamed Waterbody	I	33.7	N/A	Warm Water Fishery	Open Cut	Intermediate
82.32	ALL-WB-006	Clear Creek	P	85.8	N/A	Warm Water Fishery	Open Cut	Intermediate
82.43	ALL-WB-007	Unnamed Waterbody	E	4.1	N/A	Warm Water Fishery	Open Cut	Minor
84.85	ALL-WB-008	Bear Creek	P	23.9	N/A	Warm Water Fishery	Open Cut	Intermediate
87.13	ALL-WB-010	Bunchs Creek	I	56.6	N/A	Warm Water Fishery	Open Cut	Intermediate
91.14	ALL-WB-011	Whiskey Chitto Creek [f]	P	0.0	N/A	Warm Water Fishery	HDD	Minor
91.14	ALL-WB-011	Whiskey Chitto Creek [f]	P	168.2	N/A	Warm Water Fishery	HDD	Major
94.55	ALL-WB-013	Calcasieu River	P	235.0	A,B,C,F,G	Warm Water Fishery	HDD	Major
95.30	ALL-WB-014	Unnamed Waterbody	E	8.5	N/A	Warm Water Fishery	Open Cut	Minor
95.67	ALL-WB-015	Unnamed Waterbody	E	2.9	N/A	Warm Water Fishery	Bore	Minor
95.68	ALL-WB-016	Unnamed Waterbody	E	2.9	N/A	Warm Water Fishery	Bore	Minor
96.15	ALL-WB-018	Unnamed Waterbody	I	6.4	N/A	Warm Water Fishery	Open Cut	Minor
96.39	ALL-WB-019	Unnamed Waterbody	E	50.6	N/A	Warm Water Fishery	Open Cut	Intermediate
96.41	ALL-WB-020	Unnamed Waterbody	E	0.0	N/A	Warm Water Fishery	HDD Pullback ATWS	Minor
96.42	ALL-WB-021	Unnamed Waterbody	E	2.6	N/A	Warm Water Fishery	Open Cut	Minor
96.76	ALL-WB-023	Unnamed Waterbody	P	17.5	N/A	Warm Water Fishery	HDD	Intermediate
97.10	ALL-WB-024	Unnamed Waterbody	E	13.2	N/A	Warm Water Fishery	Open Cut	Intermediate
97.85	ALL-WB-025	Unnamed Waterbody	I	19.2	N/A	Warm Water Fishery	Open Cut	Intermediate
98.36	ALL-WB-027	Unnamed Waterbody	I	30.6	N/A	Warm Water Fishery	Open Cut	Intermediate
99.34	ALL-WB-028	Unnamed Waterbody	I	28.8	N/A	Warm Water Fishery	Open Cut	Intermediate

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
100.75	ALL-WB-030	Unnamed Waterbody	I	22.8	N/A	Warm Water Fishery	Open Cut	Intermediate
100.87	ALL-WB-031	Bayou Blue	P	47.0	A,B,C	Warm Water Fishery	Open Cut	Intermediate
102.72	ALL-WB-033	Unnamed Waterbody	E	8.0	N/A	Warm Water Fishery	Open Cut	Minor
103.38	ALL-WB-034	Unnamed Waterbody	E	10.0	N/A	Warm Water Fishery	Open Cut	Intermediate
104.37	ALL-WB-036	Bayou Blue	P	298.7	A,B,C,	Warm Water Fishery	Open Cut	Major
104.66	ALL-WB-037	Bayou Blue	P	37.1	A,B,C,	Warm Water Fishery	Open Cut	Intermediate
104.71	ALL-WB-038	Bayou Blue	P	164.8	A,B,C,	Warm Water Fishery	Open Cut	Major
106.47	ALL-WB-041	Unnamed Waterbody	E	11.7	N/A	Warm Water Fishery	Open Cut	Intermediate
107.09	ALL-WB-042	Unnamed Waterbody	E	8.6	N/A	Warm Water Fishery	Open Cut	Minor
107.35	ALL-WB-045	Unnamed Waterbody	E	5.3	N/A	Warm Water Fishery	Open Cut	Minor
108.39	ALL-WB-051	Unnamed Waterbody	E	67.6	N/A	Warm Water Fishery	Open Cut	Intermediate
108.65	ALL-WB-052	Bayou Blue	P	52.3	A,B,C,	Warm Water Fishery	Open Cut	Intermediate
108.80	ALL-WB-053	Unnamed Waterbody	E	3.2	N/A	Warm Water Fishery	Open Cut	Minor
109.75	ALL-WB-054	Unnamed Waterbody	E	15.4	N/A	Warm Water Fishery	Open Cut	Intermediate
109.89	ALL-WB-055	Unnamed Waterbody	E	30.5	N/A	Warm Water Fishery	HDD	Intermediate
109.95	ALL-WB-056	Bayou Nezpique	P	43.7	A,B,C,F	Warm Water Fishery	HDD	Intermediate
Evangeline Parish, Louisiana								
109.96	EVA-WB-001	Bayou Nezpique	P	43.7	A,B,C,F	Warm Water Fishery	HDD	Intermediate
110.24	EVA-WB-002	Unnamed Waterbody	I	10.9	N/A	Warm Water Fishery	Open Cut	Intermediate
110.35	EVA-WB-003	Unnamed Waterbody	I	0.0	N/A	Warm Water Fishery	HDD	Minor
111.84	EVA-WB-006	Unnamed Waterbody	I	18.1	N/A	Warm Water Fishery	Open Cut	Intermediate
112.68	EVA-WB-007	Unnamed Waterbody	I	35.0	N/A	Warm Water Fishery	Open Cut	Intermediate
115.68	EVA-WB-008	Unnamed Waterbody	I	34.5	N/A	Warm Water Fishery	Open Cut	Intermediate
115.72	EVA-WB-009	Unnamed Waterbody	E	3.5	N/A	Warm Water Fishery	Open Cut	Minor
115.72	EVA-WB-009	Unnamed Waterbody	E	3.5	N/A	Warm Water Fishery	Open Cut	Minor
117.93	EVA-WB-010	Unnamed Waterbody	E	6.7	N/A	Warm Water Fishery	Open Cut	Minor
118.40	EVA-WB-011	Unnamed Waterbody	E	21.7	N/A	Warm Water Fishery	Open Cut	Intermediate

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]
118.73	EVA-WB-012	Unnamed Waterbody	E	7.0	N/A	Warm Water Fishery	Open Cut	Minor
119.07	EVA-WB-013	Bayou des Canne	P	80.8	A,B,C	Warm Water Fishery	HDD	Intermediate
St. Landry Parish, Louisiana								
119.25	STL-WB-001	Unnamed Waterbody	I	0.0	N/A	Warm Water Fishery	ATWS	Minor
121.37	STL-WB-002	Unnamed Waterbody	E	9.9	N/A	Warm Water Fishery	Open Cut	Minor
121.40	STL-WB-003	Unnamed Waterbody	E	9.2	N/A	Warm Water Fishery	Open Cut	Minor
121.77	STL-WB-004	Unnamed Waterbody	E	2.7	N/A	Warm Water Fishery	Open Cut	Minor
121.95	STL-WB-005	Unnamed Waterbody	E	10.4	N/A	Warm Water Fishery	Open Cut	Intermediate
122.42	STL-WB-006	Unnamed Waterbody	I	29.1	N/A	Warm Water Fishery	Open Cut	Intermediate
124.65	STL-WB-007	Bayou Choupique	P	77.5	N/A	Warm Water Fishery	Open Cut	Intermediate
125.97	STL-WB-008	Unnamed Waterbody	I	36.5	N/A	Warm Water Fishery	Open Cut	Intermediate
126.52	STL-WB-009	Bayou Doza	P	65.6	N/A	Warm Water Fishery	Open Cut	Intermediate
127.13	STL-WB-010	Unnamed Waterbody	I	34.1	N/A	Warm Water Fishery	Open Cut	Intermediate
128.12	STL-WB-011	Unnamed Waterbody	E	34.4	N/A	Warm Water Fishery	Open Cut	Intermediate
128.14	STL-WB-012	Unnamed Waterbody	E	28.0	N/A	Warm Water Fishery	Open Cut	Intermediate
128.16	STL-WB-013	Unnamed Waterbody	E	28.6	N/A	Warm Water Fishery	Open Cut	Intermediate
128.88	STL-WB-014	Unnamed Waterbody	I	11.8	N/A	Warm Water Fishery	Open Cut	Intermediate
129.01	STL-WB-015	Unnamed Waterbody	I	37.5	N/A	Warm Water Fishery	Open Cut	Intermediate
129.06	STL-WB-016	Unnamed Waterbody	E	4.6	N/A	Warm Water Fishery	Open Cut	Minor
129.67	STL-WB-017	Unnamed Waterbody	I	27.7	N/A	Warm Water Fishery	Open Cut	Intermediate
129.86	STL-WB-018	Unnamed Waterbody	E	12.1	N/A	Warm Water Fishery	Open Cut	Intermediate
130.30	STL-WB-019	Unnamed Waterbody	E	26.0	N/A	Warm Water Fishery	Open Cut	Intermediate

APPENDIX I.2 (cont'd)

Surface Waterbodies Crossed by the Louisiana Connector Project

County/ Parish, State, Milepost	Waterbody Label	Waterbody	Type [a]	Crossing Width (feet)	State Water Quality Classification [b]	Fishery Type [c]	Proposed Construction Crossing Method [d]	FERC Classification [e]

[a] P = Perennial
E = Ephemeral
I = Intermittent

[b] State Water Quality Classifications:
A = Primary Contact Recreation
B = Secondary Contact Recreation
C = Propagation of Fish and Wildlife
D = Drinking Water
E = Oyster Production
F = Agriculture
G = Outstanding Natural Resource Waters
H = Limited Aquatic Life and Wildlife Use

[c] Fishery Type: Fishery type determination based on demarcation of the saltwater/freshwater areas from LDWF.

[d] Crossing Method: Construction method proposed by PAPL to install pipeline across waterbody. All waterbodies with a perceivable flow would be crossed by the dry-ditch method or the predetermined HDD locations. Non-flowing water at the time of construction would utilize an open-cut crossing method. An appropriate crossing method would be determined at the time of construction based on water flow.

[e] FERC Classifications:
Minor = <10 feet crossing length
Intermediate = >10 feet but <100 feet crossing length
Major = >100 feet crossing length

[f] Waterbody listed as a Scenic River by the State of Louisiana.

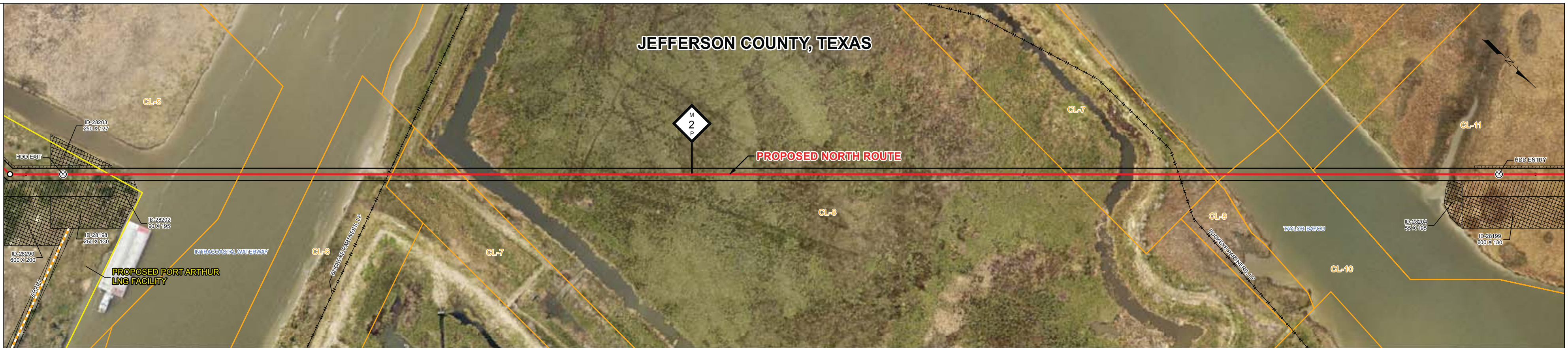
Note: No waterbodies are crossed or otherwise impacted by any of the proposed above ground facilities.

APPENDIX J

PROFILES OF HDD CROSSINGS

TEXAS CONNECTOR PROJECT

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



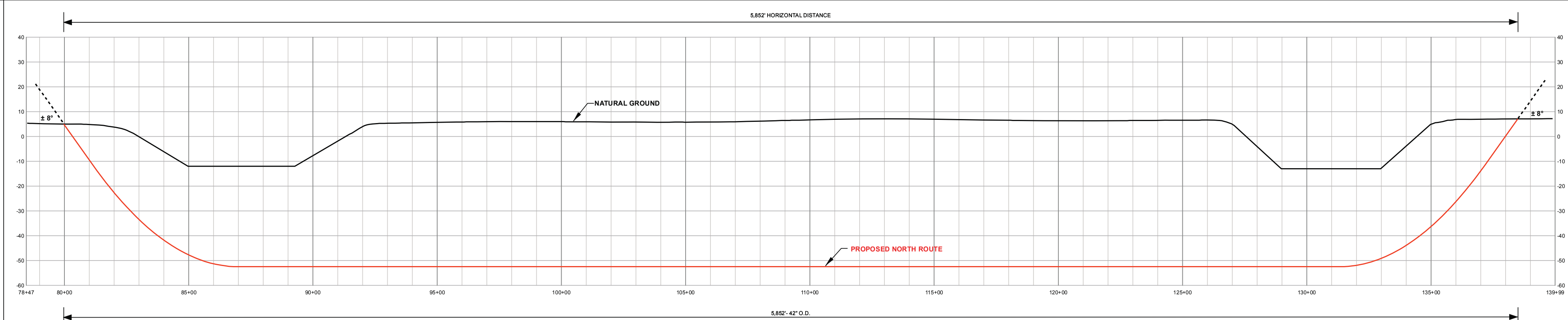
PRELIM. DATA

STATIONING

79+97 HDD EXIT

138+49 HDD ENTRY

GROUND
PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	001 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 79+97 TO 138+49

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
INTRACOASTAL WATERWAY / TAYLOR BAYOU

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12001 REV. A

J-1-1

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)

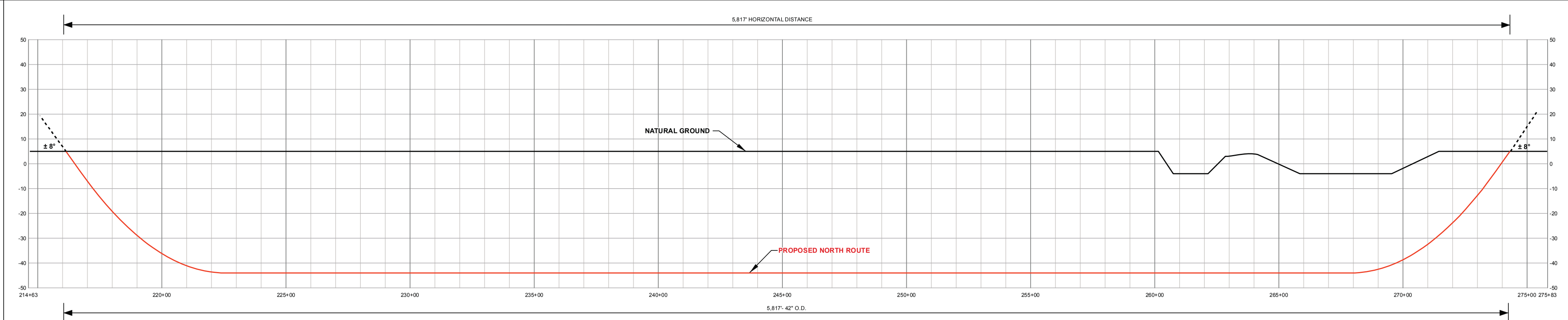
PRELIM. DATA

STATIONING

216+14 HDD EXIT

274+31 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT.: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	002 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 216+14 TO 274+31

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
FOREIGN PIPELINES / SHALLOW PRONG LAKE

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

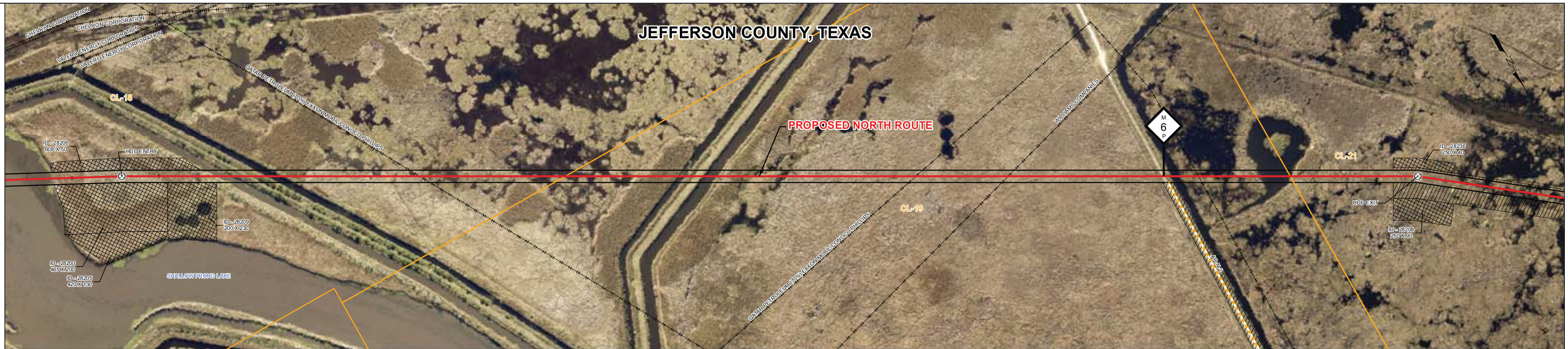
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12002 REV. A

J-1-2

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)



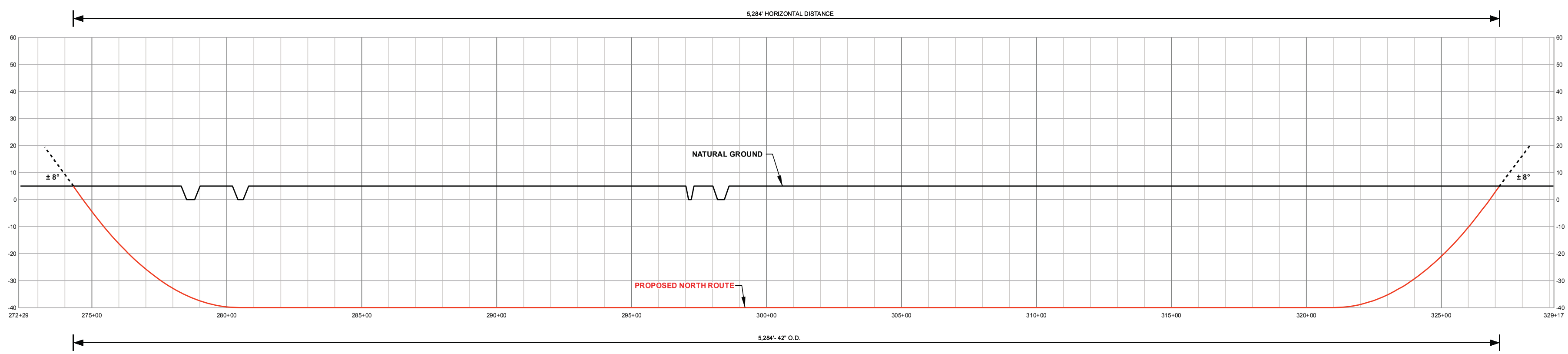
PRELIM. DATA

STATIONING

274+31 HDD ENTRY

327+15 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES

PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
TEMPORARY ACCESS ROAD
PERMANENT ACCESS ROAD
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	003 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 274+31 TO 327+15

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
WATERBODIES

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12003 REV. A

J-1-3

Document Path: \\hou-fs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12003.mxd

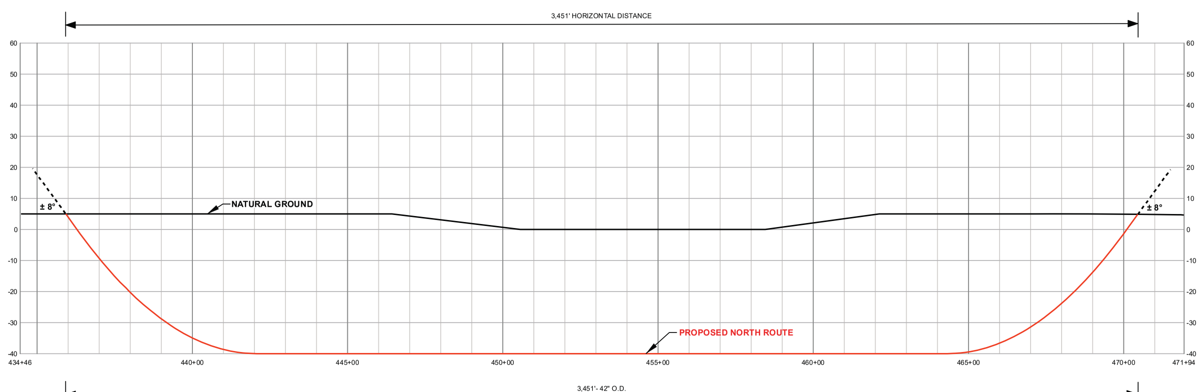
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

PRELIM. DATA

STATIONING

435+93 HDD EXIT
439+76 STATE HWY 73
440+48 STATE HWY 73
470+44 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	004 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 435+93 TO 470+44

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
STATE HWY 73 / POND

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12004 REV. A

J-1-4

Document Path: \\houfs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12004.mxd

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

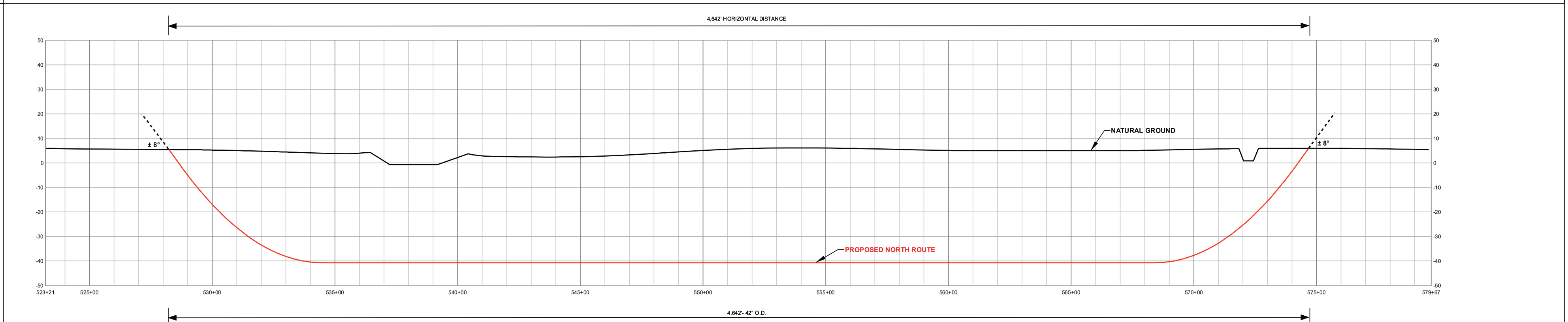
PRELIM. DATA

STATIONING

528+25 HDD EXIT

574+67 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	005 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 528+25 TO 574+67

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
TAYLOR BAYOU

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

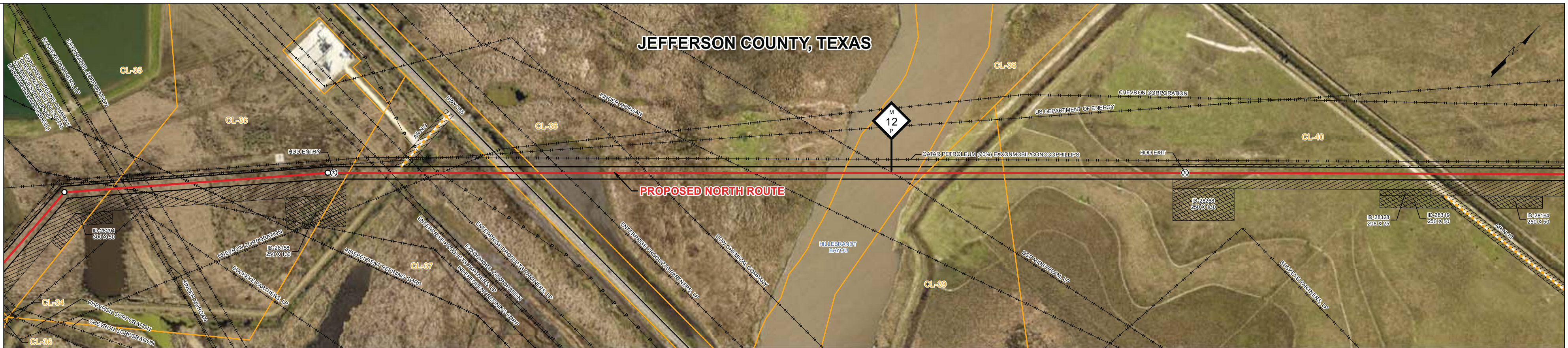
NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12005 REV. A

J-1-5

Document Path: \\houufs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12005.mxd

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

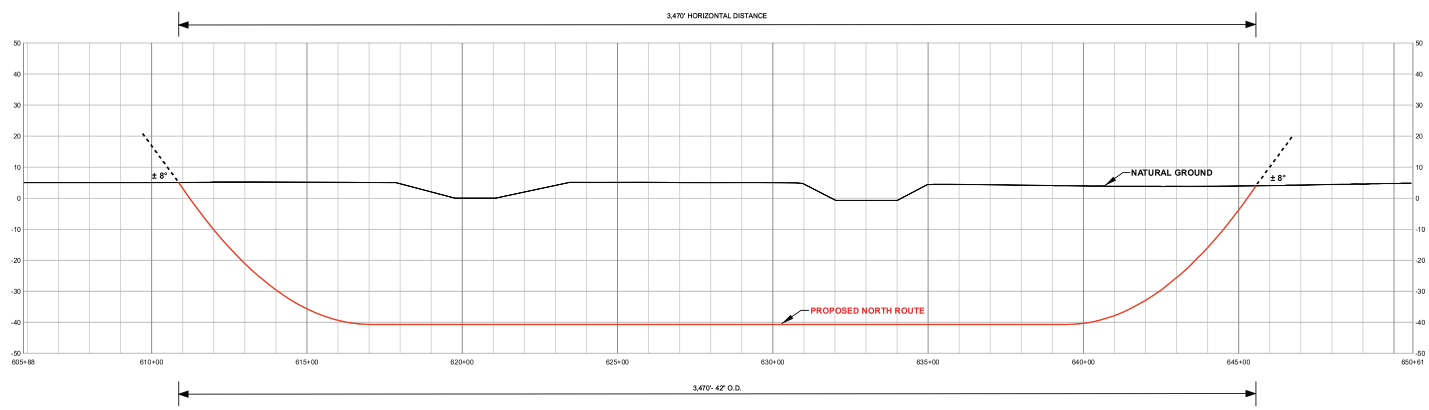


PRELIM. DATA

STATIONING

610+87 HDD ENTRY
618+25 HWY 365
645+57 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	006 OF 024
JOB NO.	22670		
CLIENT	SEMPRA LNG AND MIDSTREAM		

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 610+87 TO 645+57

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
HWY 365 / HILLEBRANDT BAYOU

JEFFERSON COUNTY TEXAS

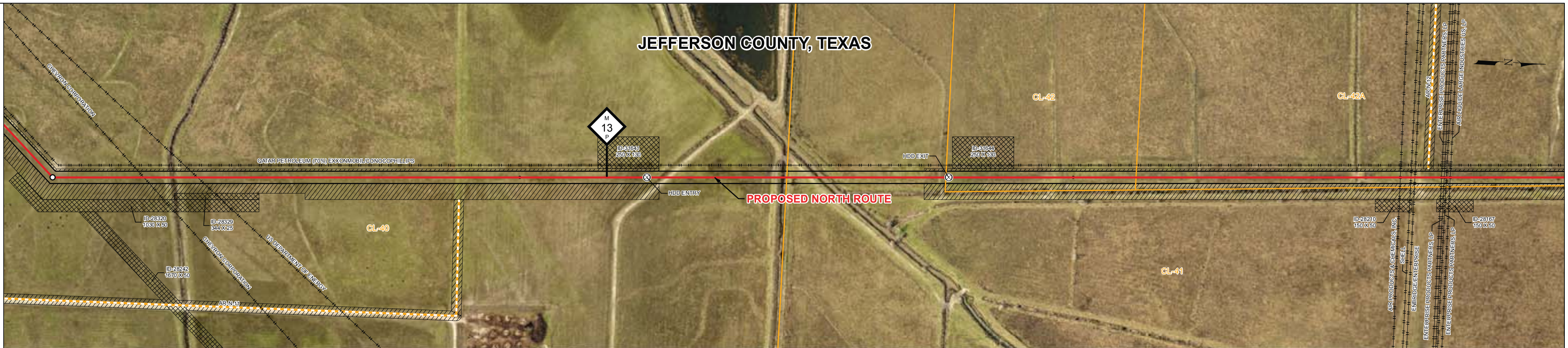
UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12006 REV. A

Document Path: \\houfs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12006.mxd



SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)

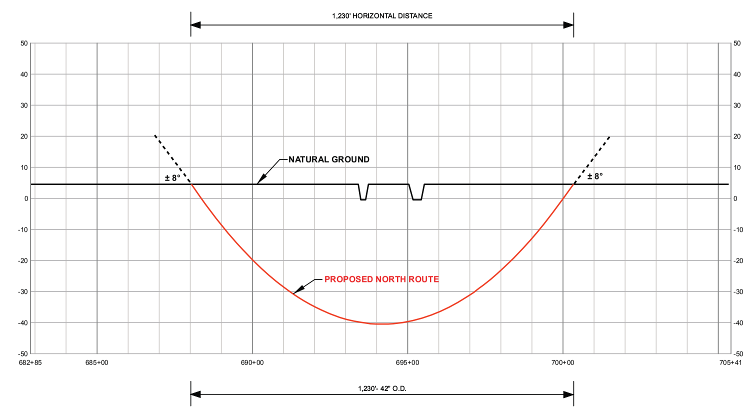
PRELIM. DATA

STATIONING

688+03 HDD ENTRY

700+33 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	007 OF 024
JOB NO. 22670			
CLIENT SEMPRA LNG AND MIDSTREAM			
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942			

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 688+03 TO 700+33

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
CANALS

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

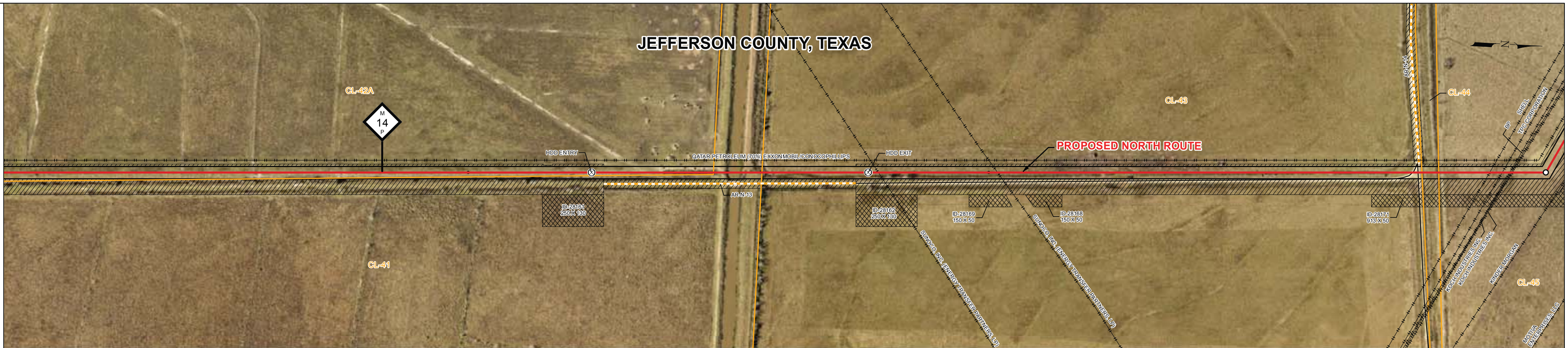
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12007 REV. A

J-1-7

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



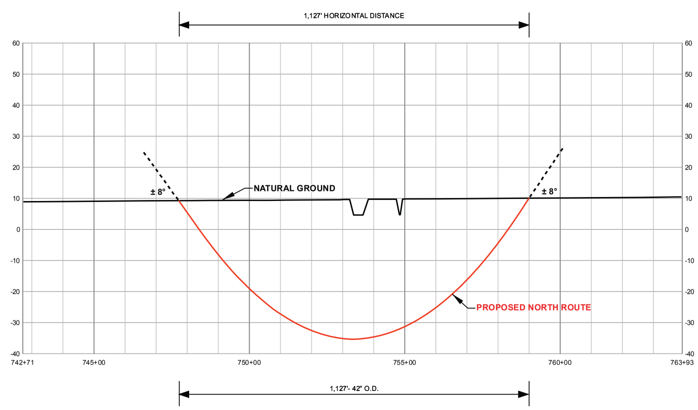
PRELIM. DATA

STATIONING

747+73 HDD ENTRY

759+00 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	008 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 747+73 TO 759+00

0 200 400 800 FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
CANAL

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12008 REV. A

J-1-8

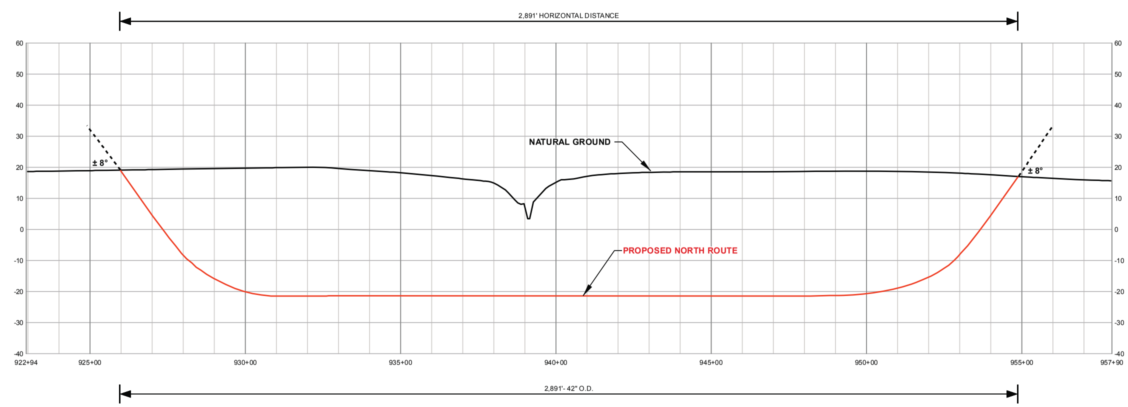
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

PRELIM. DATA

STATIONING

925+97 HDD ENTRY
926+90 UNNAMED ROAD
930+40 UNNAMED ROAD
931+33 STATE SPUR 93 / W PORT ARTHUR RD
932+14 UNION PACIFIC RAILROAD
954+88 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST	EXISTING SEMPRA PIPELINE	PERMANENT EASEMENT
HDD ENTRY / EXIT	FOREIGN PIPELINE	TEMPORARY WORKSPACE (TWS)
CONTROL POINT (PI)	POWERLINE	ADDITIONAL TWS
MAINLINE VALVE (MLV)	RAILROAD	SITE
PROPOSED ROUTE	ROAD	PARCEL TRACT
TEMPORARY ACCESS ROAD		PARISH/COUNTY BOUNDARY
PERMANENT ACCESS ROAD		STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	009 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 925+97 TO 954+88

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

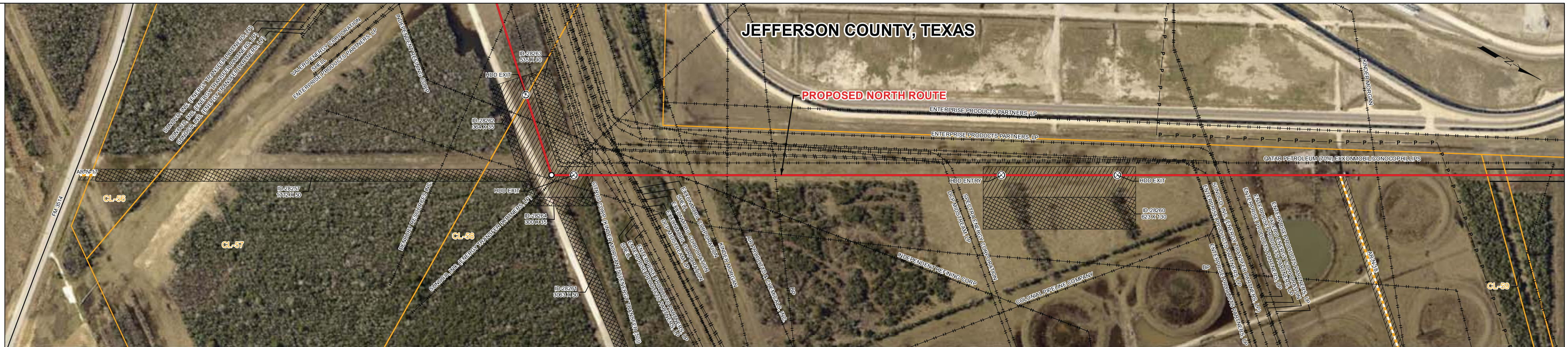
HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
STATE SPUR 93 / W PORT ARTHUR RD, FOREIGN PIPELINES
JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12009 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



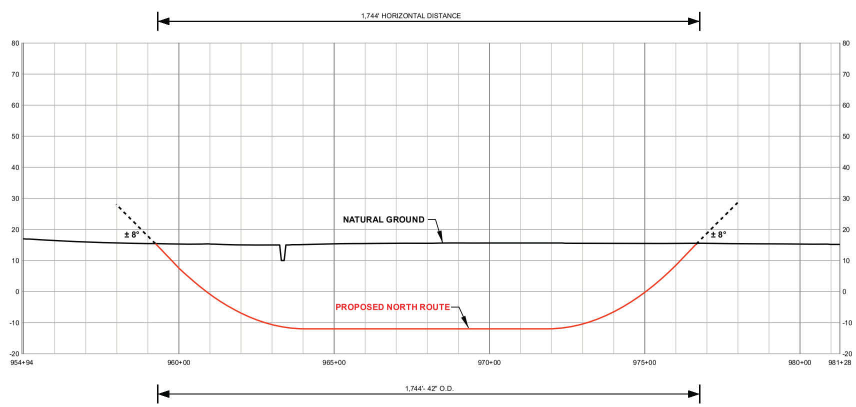
PRELIM. DATA

STATIONING

959+24 HDD EXIT

976+68 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	010 OF 024
JOB NO.	22670		
CLIENT	SEMPRA LNG AND MIDSTREAM		

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 959+24 TO 976+68

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
FOREIGN PIPELINES

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL — A Subsidiary of Huntington Ingalls Industries

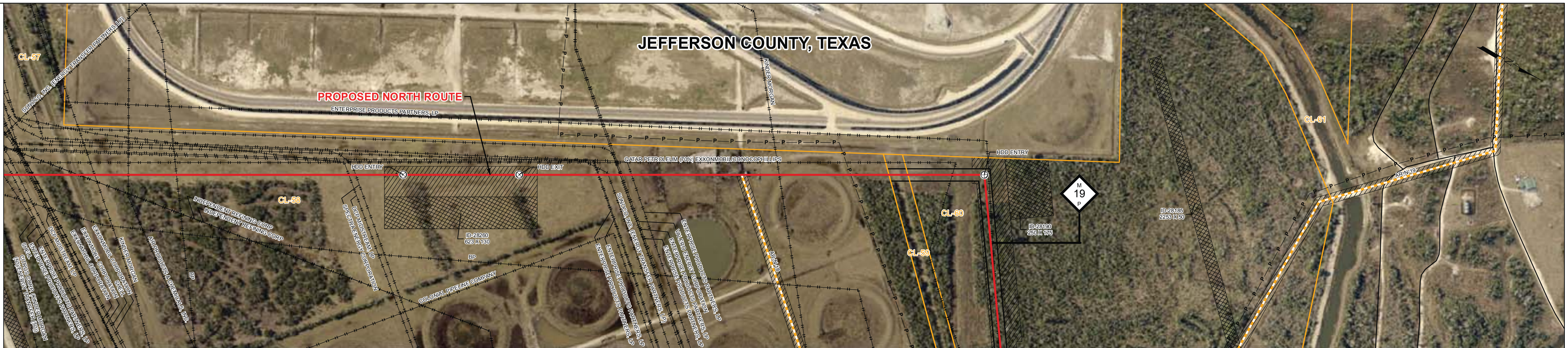
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12010 REV. A

J-1-10

Document Path: \\houv-fs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12010.mxd



SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)

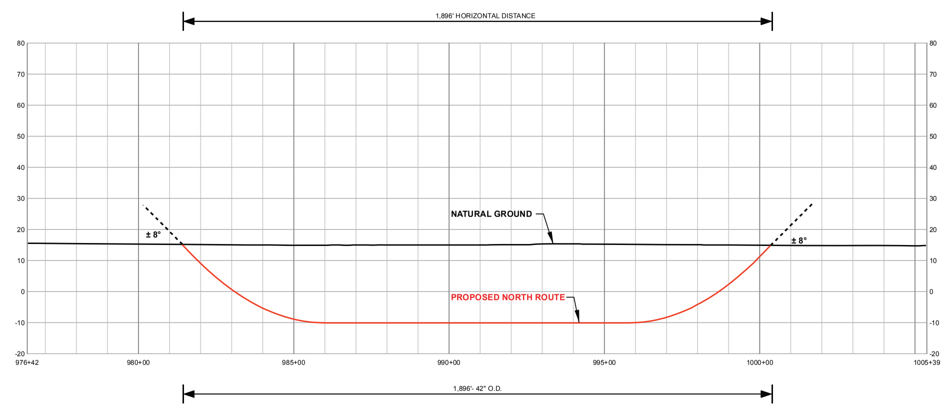
PRELIM. DATA

STATIONING

981+40 HDD EXIT

1000+36 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	011 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 981+40 TO 1000+36

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
FOREIGN PIPELINES

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

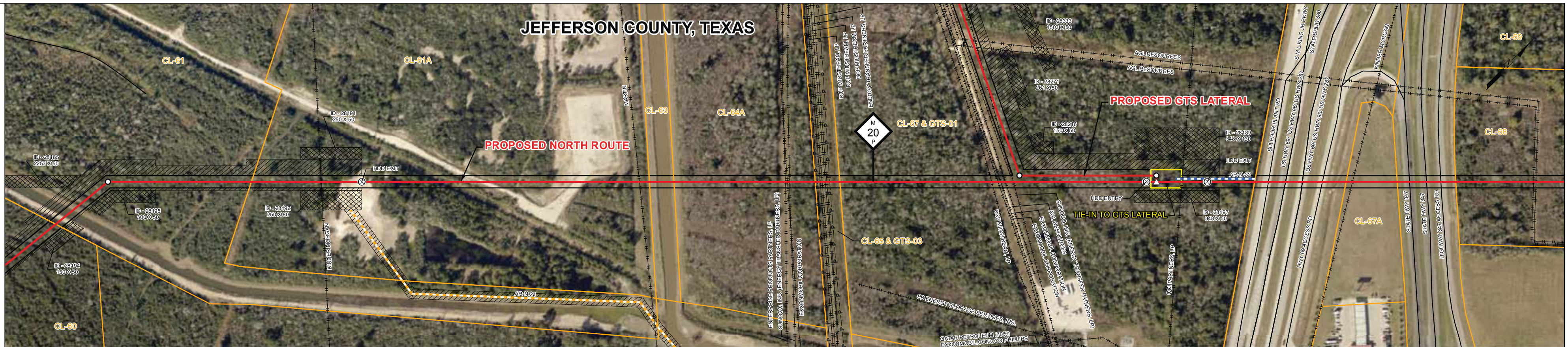
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12011 REV. A

J-1-11

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)



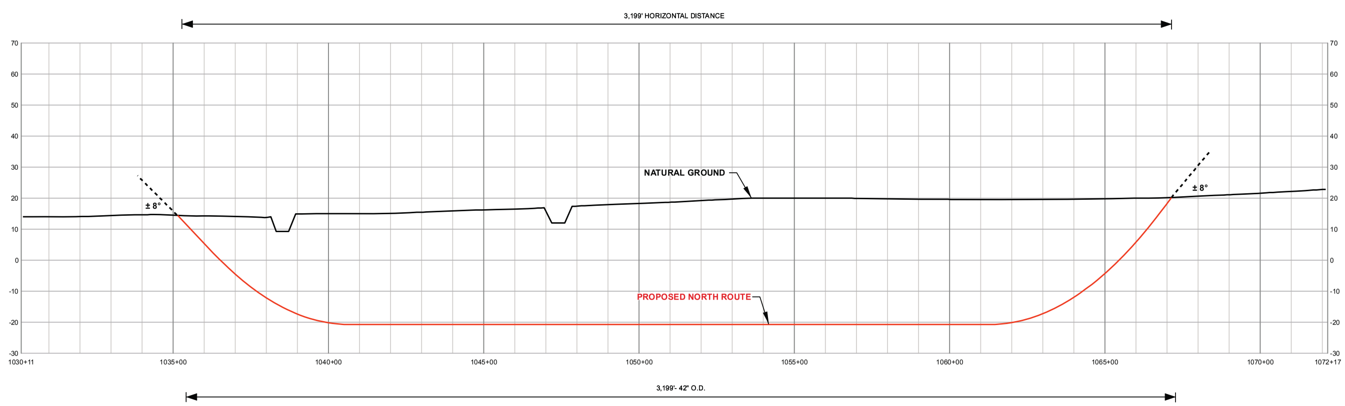
PRELIM. DATA

STATIONING

1035+14 HDD EXIT

1067+13 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS

FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

J-1-12

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	012 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 1035+14 TO 1067+13

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
LNVA CANAL

JEFFERSON COUNTY TEXAS

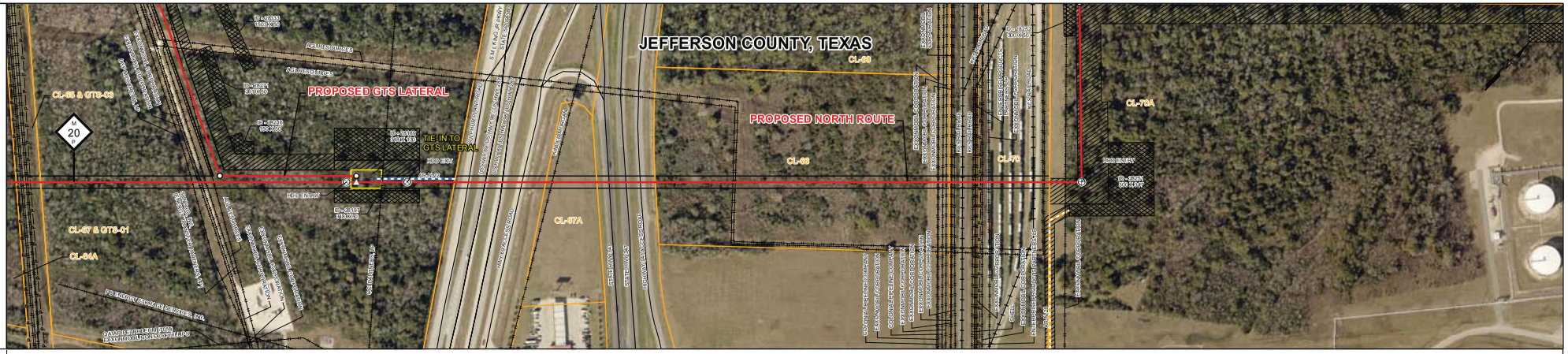
UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12012 REV. A

SCALE: 1" = 200'

(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)

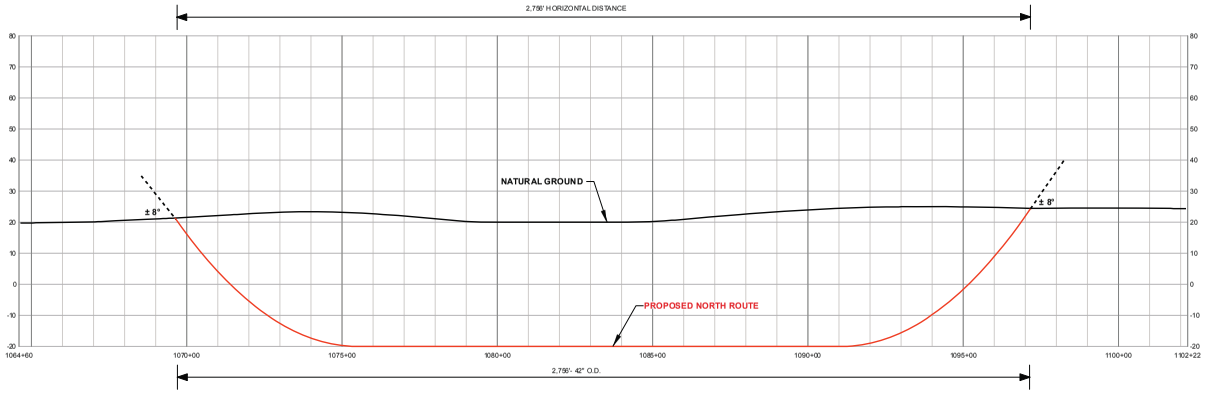


PRELIM. DATA

STATIONING

1064+61 HDD EXIT
1072+12 SULPHUR PLANT ROAD
1074+61 US HWY 69 / US HWY 96 / US HWY 287
1075+50 US HWY 69 / US HWY 96 / US HWY 287
1074+31 HWY 69 ACCESS ROAD
1077+88 STATE HWY 347
1079+56 STATE HWY 347
1079+14 HIGHWAY 347 ACCESS ROAD
1092+30 KCS RAILROAD
1092+63 KCS RAILROAD
1095+19 KCS RAILROAD
1097+17 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	09/17/2017
CHKD	BJV	DATE	09/17/2017
APPD	FAT	DATE	09/17/2017
SCALE	1 IN = 200 FT	SHEET	013 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. #F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE ### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 1069+61 TO 1097+17

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
US HWY 69/96/287, FOREIGN PIPELINES, KCS RR

JEFFERSON COUNTY TEXAS

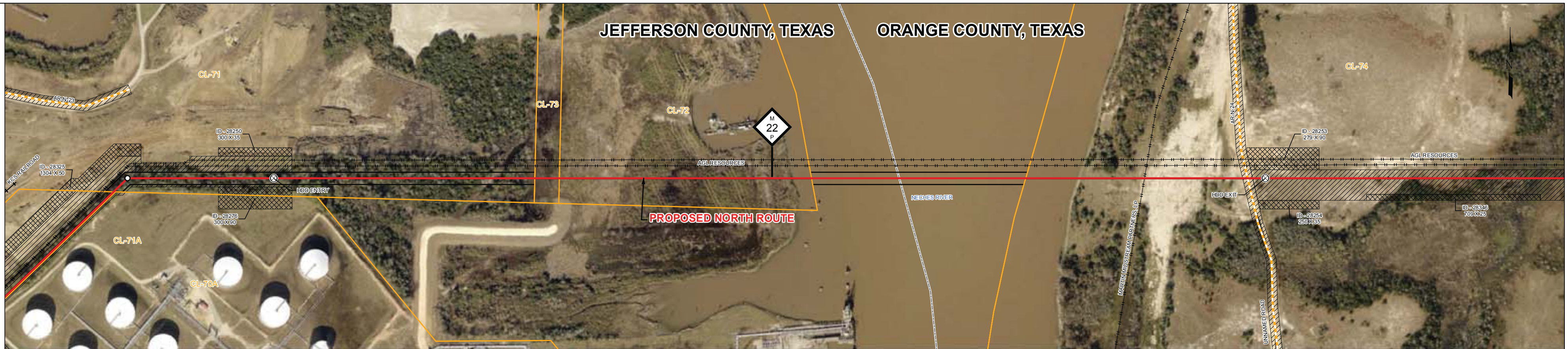
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12013 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

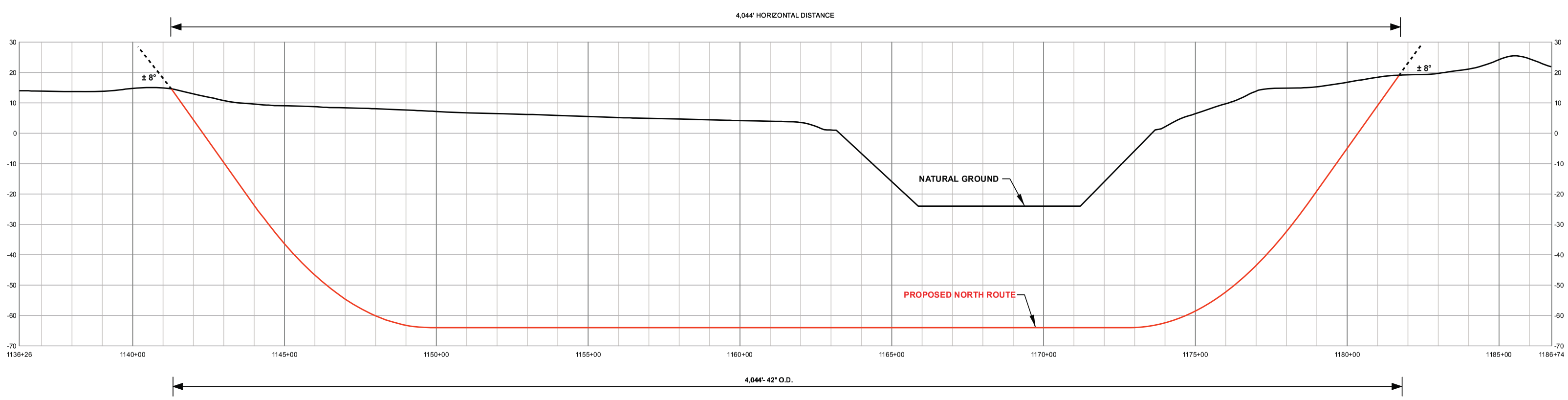


PRELIM. DATA

STATIONING

1141+28 HDD ENTRY
1181+00 AR-N-24
1181+01 UNNAMED ROAD
1181+72 HDD EXIT

GROUND
PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	014 OF 024
JOB NO. 22670			
CLIENT SEMPRA LNG AND MIDSTREAM			
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942			

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 1141+28 TO 1181+72

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
NECHES RIVER

JEFFERSON COUNTY / ORANGE COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12014 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)

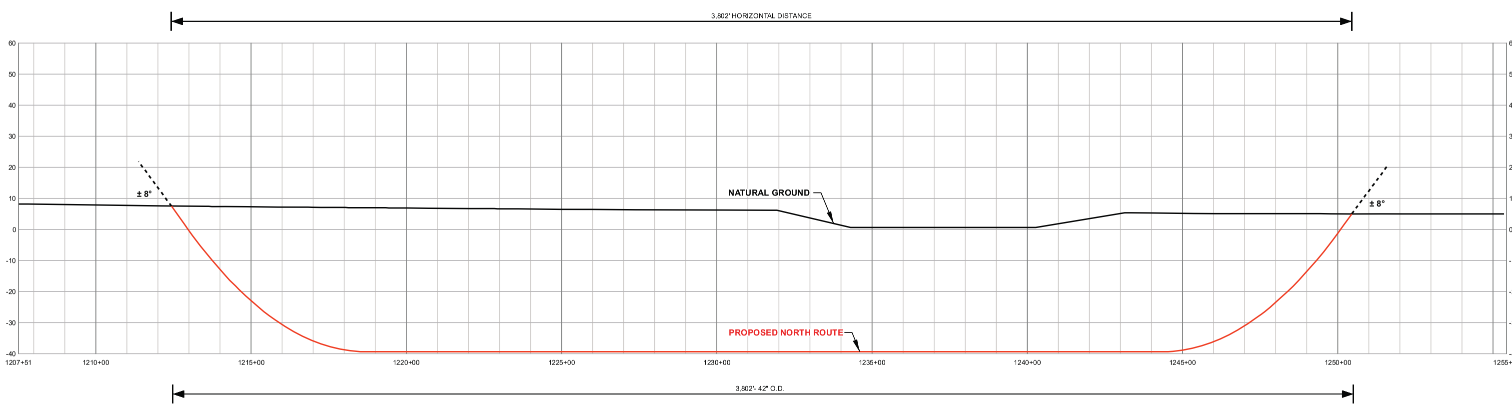
PRELIM. DATA

STATIONING

1212+43 HDD EXIT

1250+45 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
TEMPORARY ACCESS ROAD
PERMANENT ACCESS ROAD
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	015 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 1212+43 TO 1250+45

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
POND

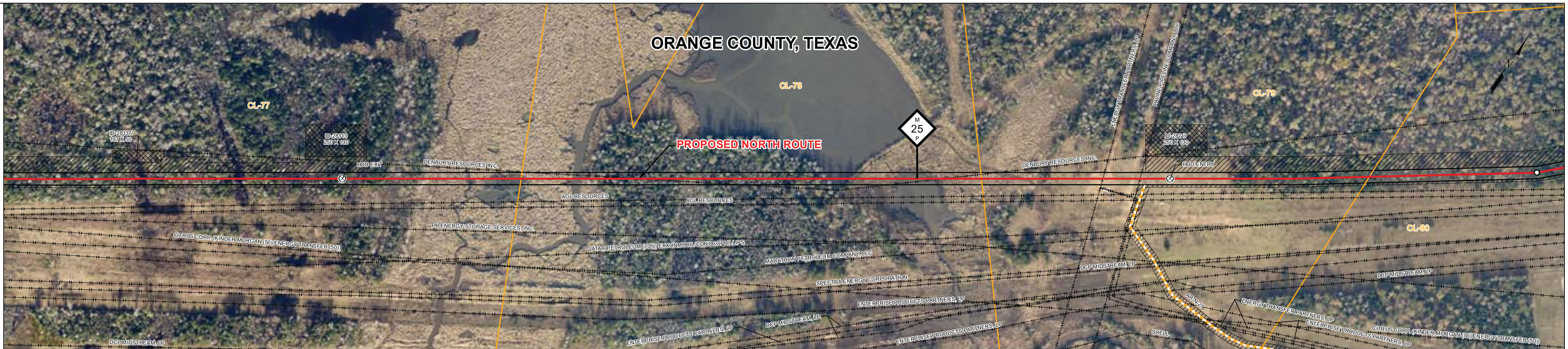
ORANGE COUNTY TEXAS

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12015 REV. A

J-1-15

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



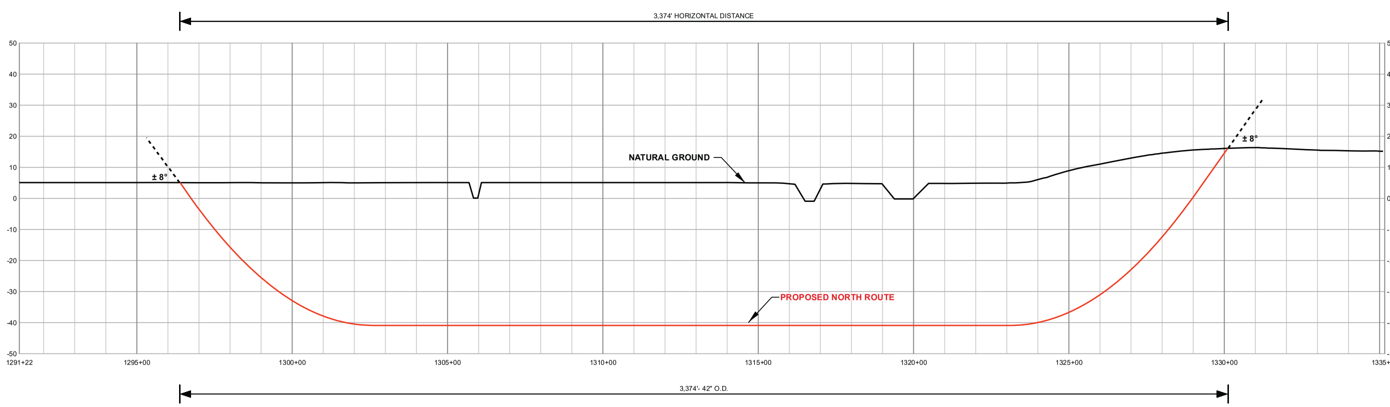
PRELIM. DATA

STATIONING

1296+38 HDD EXIT

1330+12 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST	EXISTING SEMPRA PIPELINE	PERMANENT EASEMENT
HDD ENTRY / EXIT	FOREIGN PIPELINE	TEMPORARY WORKSPACE (TWS)
CONTROL POINT (PI)	POWERLINE	ADDITIONAL TWS
MAINLINE VALVE (MLV)	RAILROAD	SITE
PROPOSED ROUTE	ROAD	PARCEL TRACT
TEMPORARY ACCESS ROAD		PARISH/COUNTY BOUNDARY
PERMANENT ACCESS ROAD		STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	016 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 1296+38 TO 1330+12

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED NORTH ROUTE
STREAM, FOREIGN PIPELINE

ORANGE COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

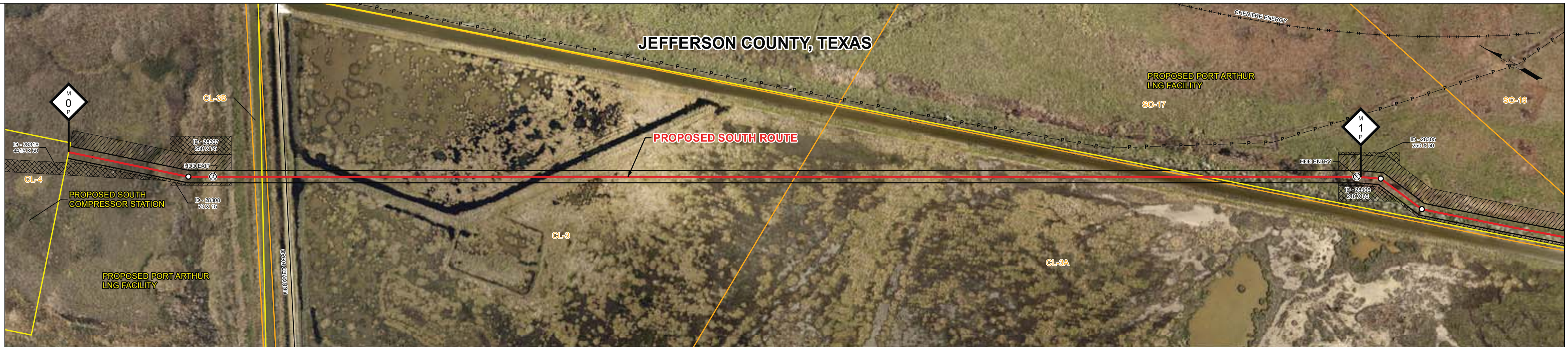
NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12016 REV. A

J-1-16

Document Path: \\houv-fs1\GIS\Production\Projects\22670_Sempra_Port_Arthur_PL\Maps\HDD\Output\22670-505-HDW-12016.mxd

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



PRELIM. DATA

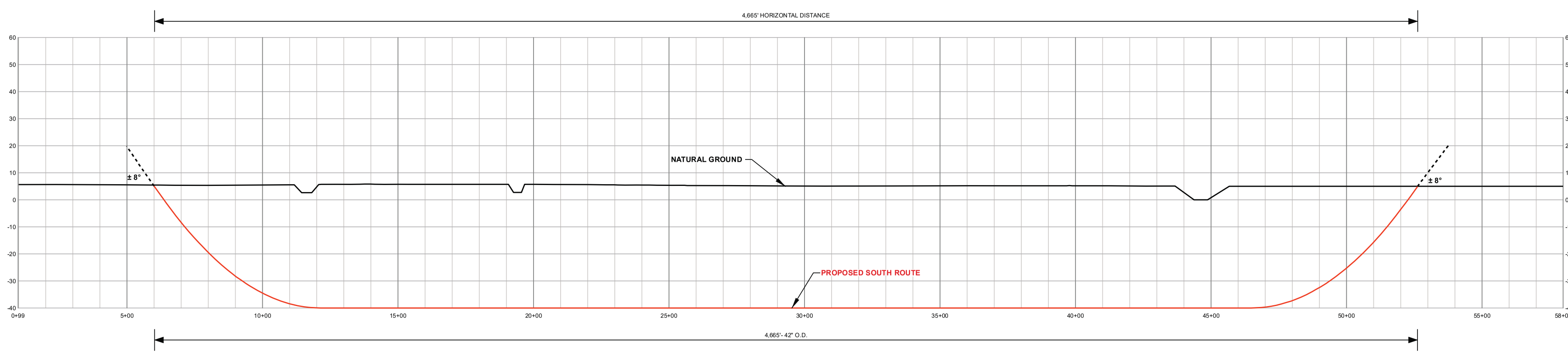
STATIONING

5+98 HDD EXIT

8+96 UNNAMED ROAD

52+63 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	017 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 5+98 TO 52+63

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED SOUTH ROUTE
CANALS

JEFFERSON COUNTY TEXAS

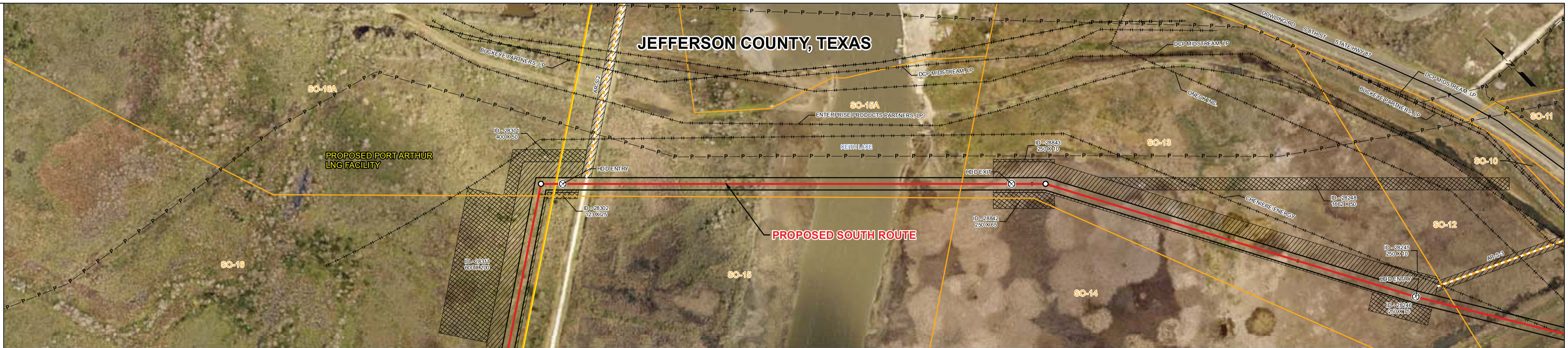
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12017 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



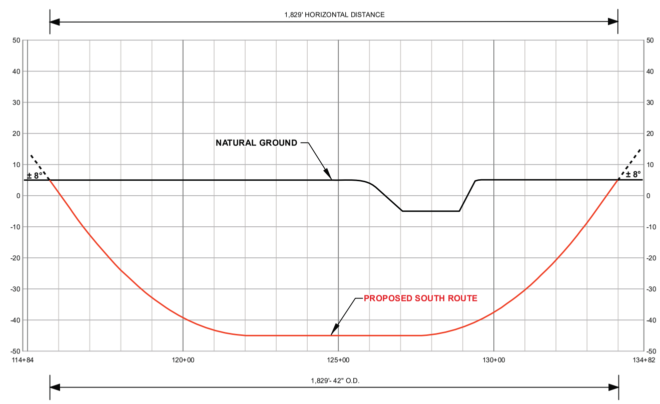
PRELIM. DATA

STATIONING

115+70 HDD ENTRY

133+99 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

1,829'- 42" O.D.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	018 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 115+70 TO 133+99

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED SOUTH ROUTE
KEITH LAKE

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

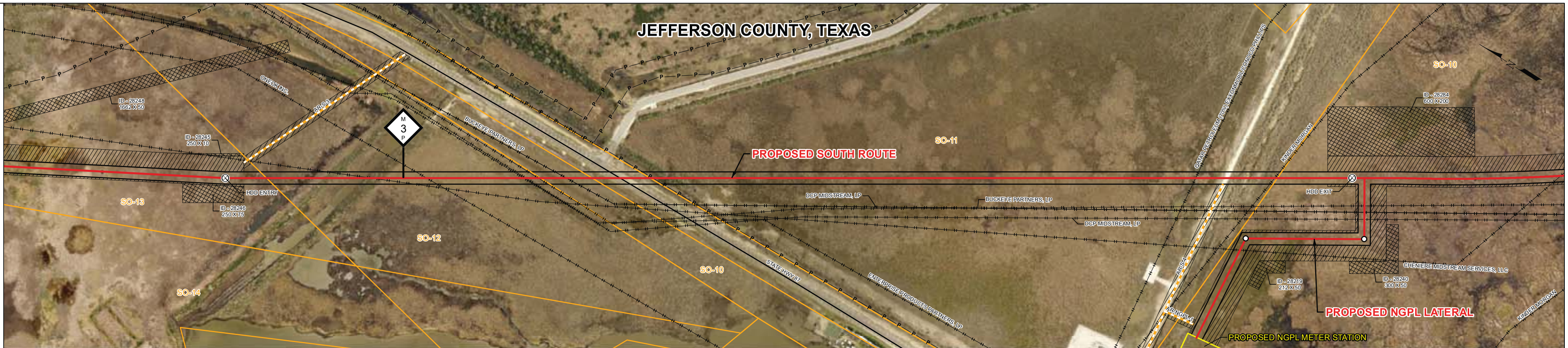
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12018 REV. A

J-1-18

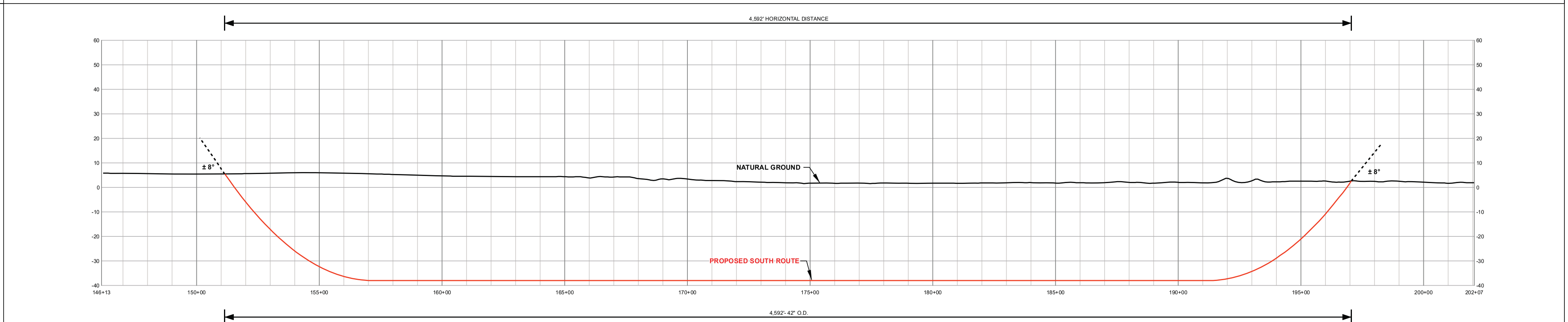
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)



PRELIM. DATA | STATIONING

151+14 HDD ENTRY
167+22 STATE HWY 87
197+06 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	019 OF 024
JOB NO.	22670		
CLIENT	SEMPRA LNG AND MIDSTREAM		

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 151+14 TO 197+06

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED SOUTH ROUTE
FOREIGN PIPELINES, STATE HWY 87

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

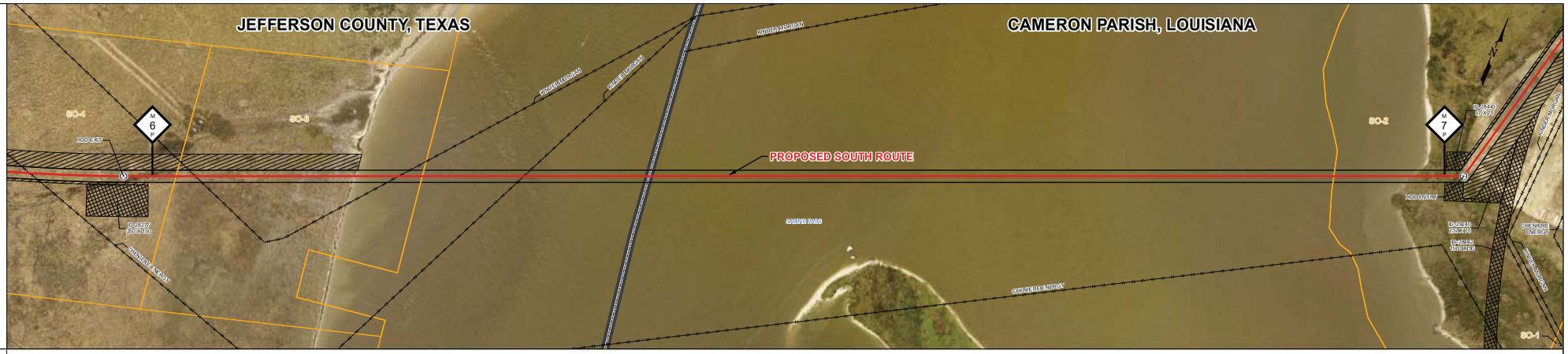
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12019 REV. A

J-1-19

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/29/2015)



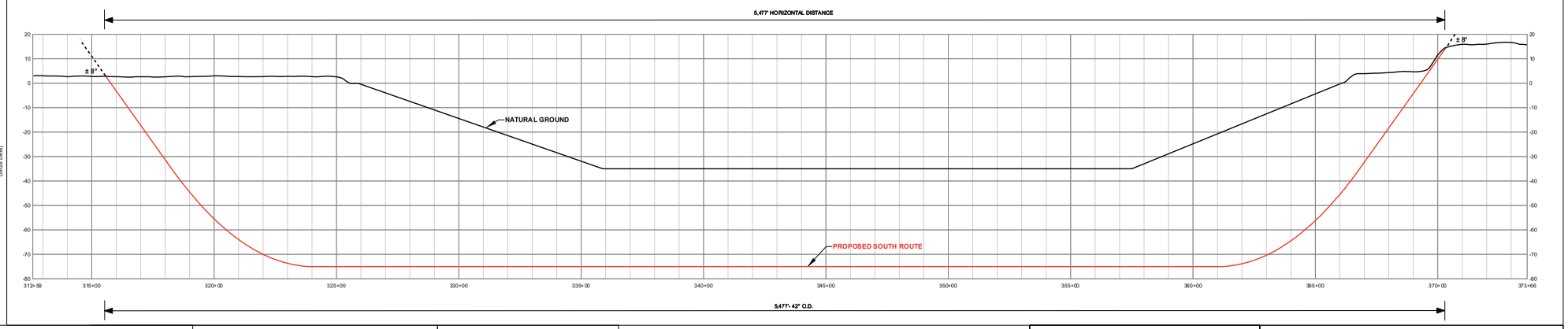
PRELIM. DATA

STATIONING

315+61 HDD EXIT

370+38 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS 2348)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS	GENERAL NOTES
		1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS. 2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA. 3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS. 4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT). 5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING	DISCLAIMER
		UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.
PIPE ASSEMBLIES	PIPE COATING DATA	

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	020 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942
UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 315+61 TO 370+38

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED SOUTH ROUTE
SABINE PASS

JEFFERSON COUNTY, TEXAS
CAMERON PARISH, LOUISIANA

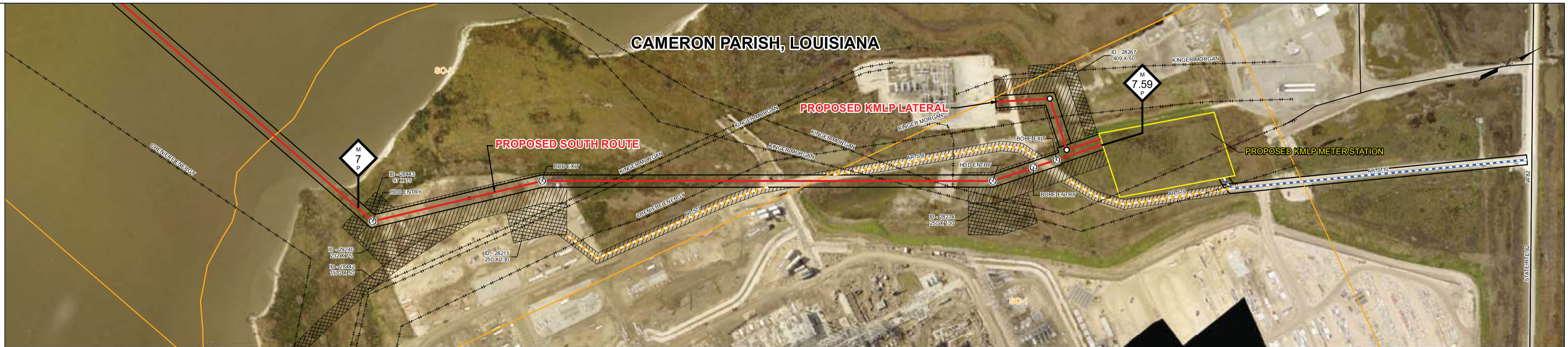
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12020 REV. A

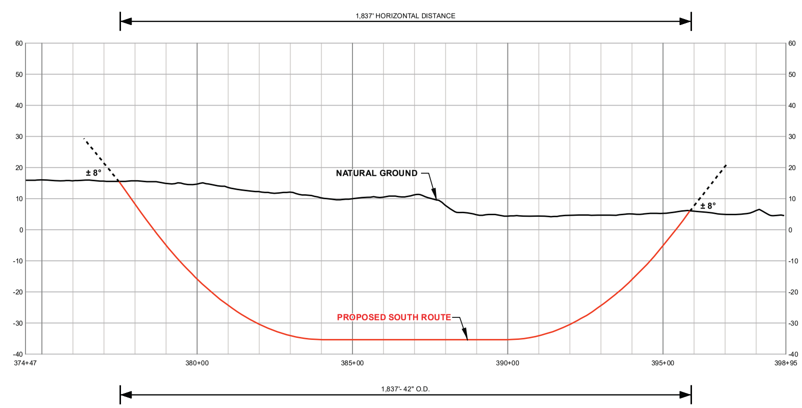
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/26/2015)



PRELIM. DATA | STATIONING

377+48 HDD EXIT
395+85 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	021 OF 024
JOB NO. 22670			
CLIENT SEMPRA LNG AND MIDSTREAM			
UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING FIRM LIC. # EF.0001688			

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 377+48 TO 395+85

0 200 400 800 FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED SOUTH ROUTE
FOREIGN PIPELINES

CAMERON PARISH LOUISIANA

UniversalPegasus INTERNATIONAL — A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

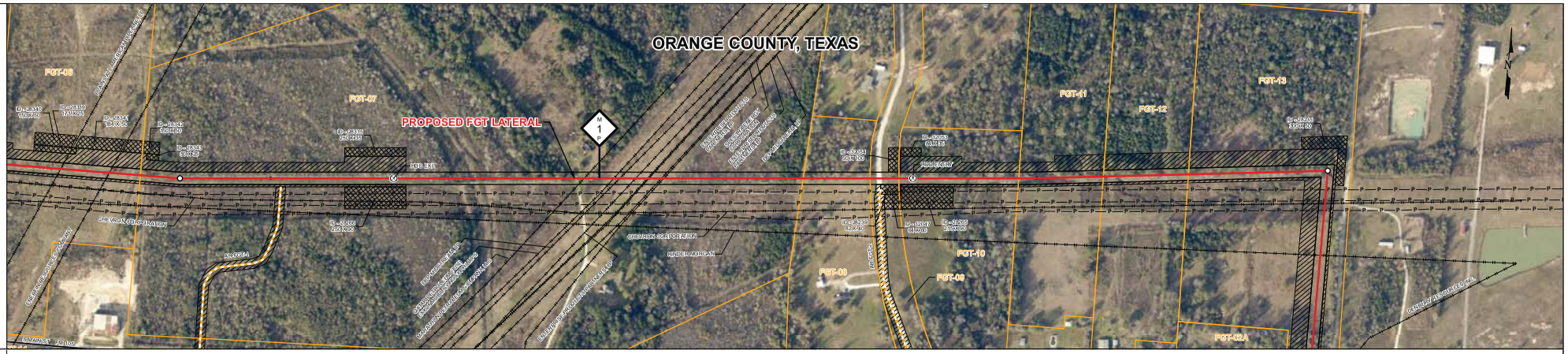
NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12021 REV. A

J-1-21

SCALE: 1" = 200'

(IMAGERY DATA SOURCE: PICTOMETRY INTERNATIONAL - 01/29/2015)



PRELIM. DATA

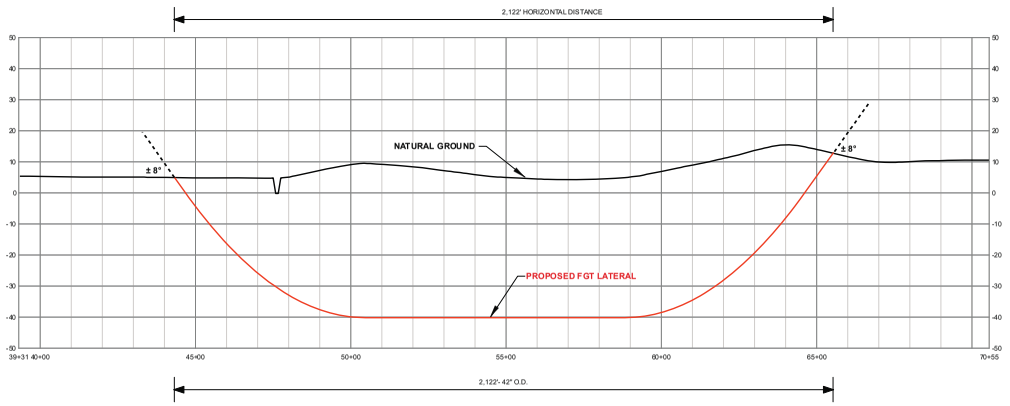
STATIONING

44+32 HDD EXIT

65+54 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'

(ELEVATION DATA SOURCE: USGS 2/3rd)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	022 OF 024

JOB NO. 22670

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 44+32 TO 65+54

0 200 400 800

FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED FGT LATERAL
FOREIGN PIPELINES

ORANGE COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12022 REV. A

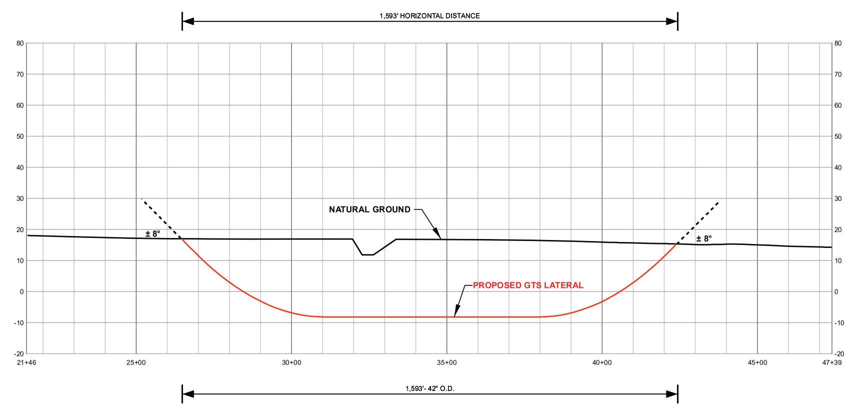
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)

PRELIM. DATA

STATIONING

26+46 HDD EXIT
37+16 UNNAMED ROAD
37+22 AMCO RD EXN
42+39 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	023 OF 024

JOB NO. 22670
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 26+46 TO 42+39

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED GTS LATERAL
FOREIGN PIPELINES, CANALS

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

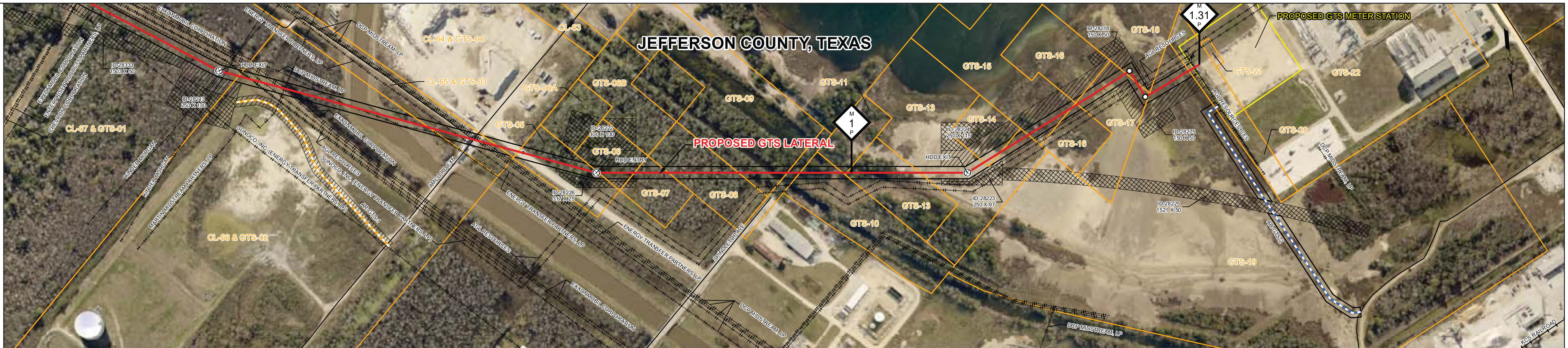
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12023 REV. A

J-1-23

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
PICTOMETRY INTERNATIONAL - 01/26/2015)



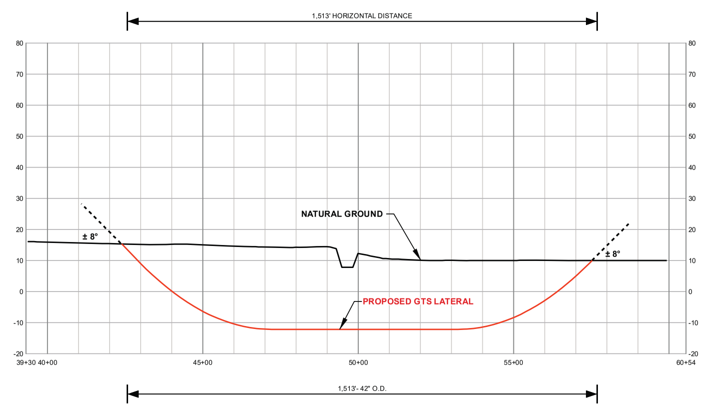
PRELIM. DATA

STATIONING

42+39 HDD ENTRY

57+52 HDD EXIT

GROUND
PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- TEMPORARY ACCESS ROAD
- PERMANENT ACCESS ROAD
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	BJV	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	024 OF 024
JOB NO. 22670			
CLIENT SEMPRA LNG AND MIDSTREAM			
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942			

	APPROVAL	COMPANY
ENVIRONMENTAL		
LAND		

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 42+39 TO 57+52

0 200 400 800
FEET

PORT ARTHUR PIPELINE TEXAS CONNECTOR (PAPTC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED GTS LATERAL
UNNAMED WATERBODY

JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	BJV	FAT

DRAWING NO. 22670-505-HDW-12024 REV. A

J-1-24

LOUISIANA CONNECTOR PROJECT

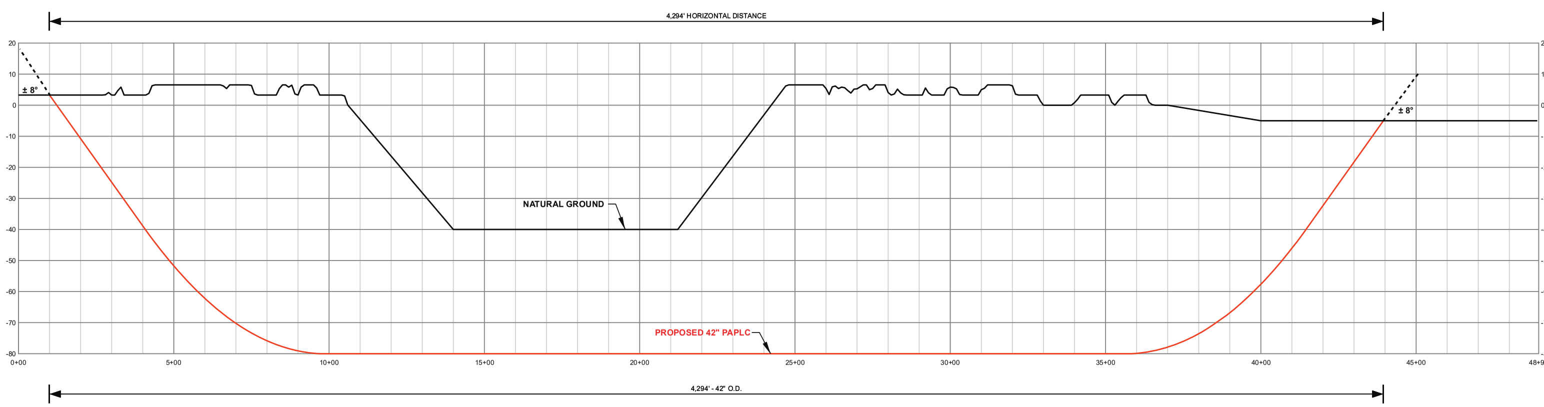
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

1+00 HDD ENTRY
9+82 STATE HWY 87 / S GULFWAY DR
17+65 PORT ARTHUR CANAL
25+25 STATE HWY 82 / MARTIN LUTHER KING JR DR
33+48 UNNAMED WATERBODY
35+33 UNNAMED WATERBODY
36+03 S LEVEE RD
43+94 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES

PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	001 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 1+00 TO 43+94

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
STATE HWY 87 / S GULFWAY DR, PORT ARTHUR CANAL, STATE HWY 82 / MARTIN LUTHER KING JR DR, S LEVEE RD

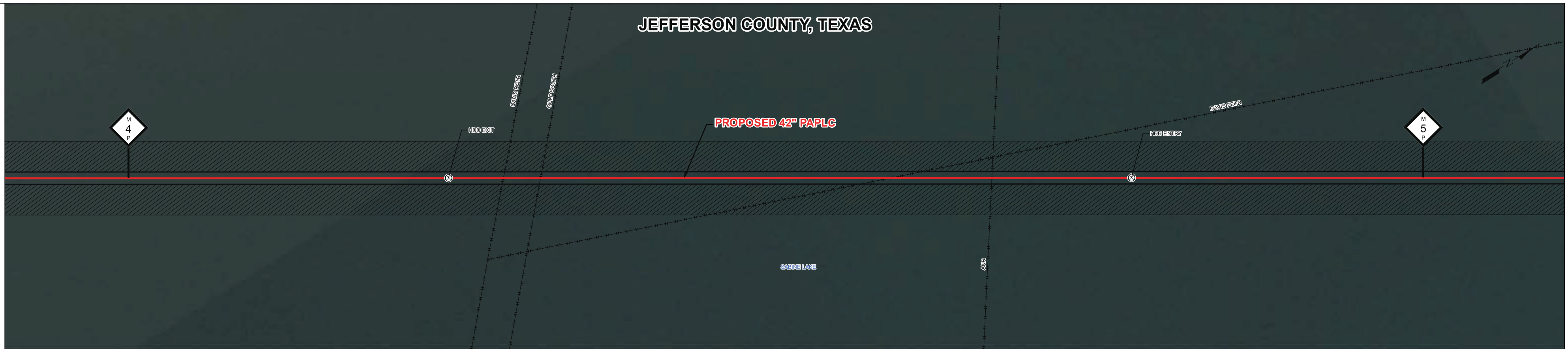
JEFFERSON COUNTY TEXAS

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12001 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)



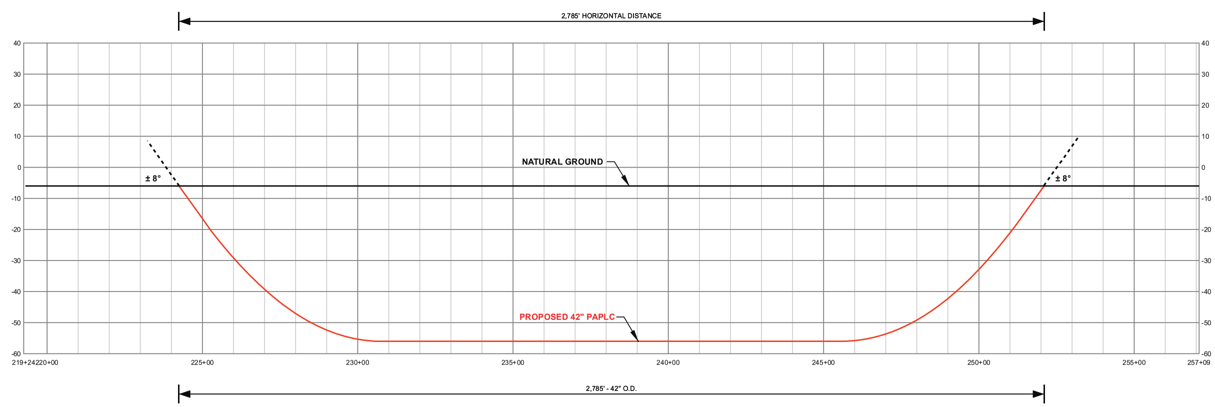
PRELIM. DATA

STATIONING

224+24 HDD EXIT

252+09 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	002 OF 026

JOB NO. 23707

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - TEXAS ENGINEERING FIRM LIC. # F-1942

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 224+24 TO 252+09

0 200 400 800 FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
FOREIGN PIPELINES

JEFFERSON COUNTY TEXAS

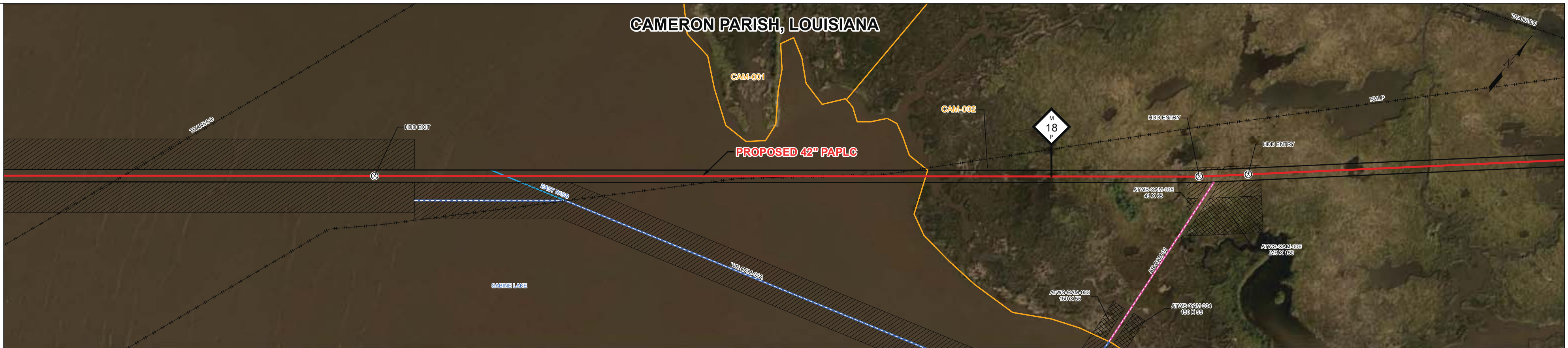
UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12002 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC - 04/24/2017)

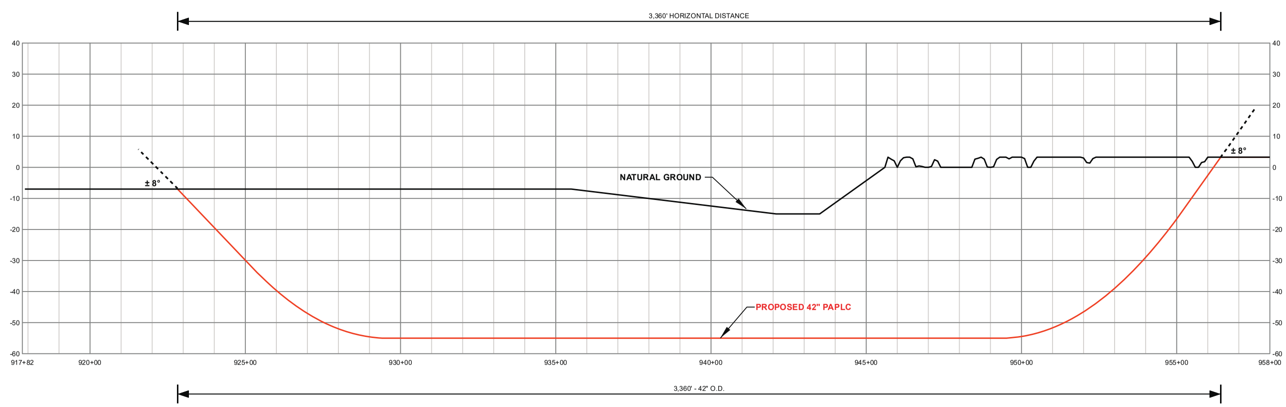


PRELIM. DATA

STATIONING

922+82 HDD EXIT
928+16 EAST PASS
956+42 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	003 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 922+82 TO 956+42

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
SABINE LAKE

CAMERON PARISH | LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12003 REV. A

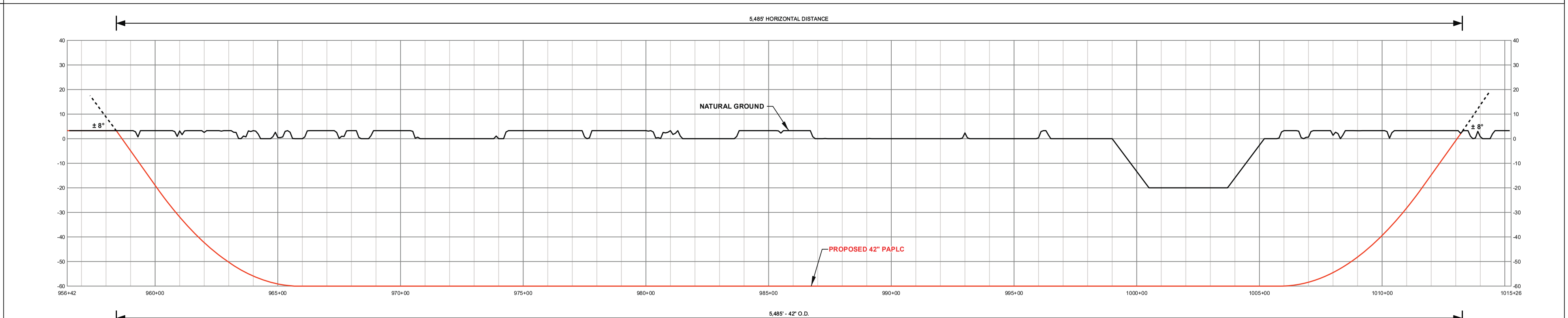
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

958+42 HDD ENTRY
1002+14 EAST PASS
1013+27 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES

PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	004 OF 026

JOB NO. 23707

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 958+42 TO 1013+27

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
EAST PASS

CAMERON PARISH LOUISIANA

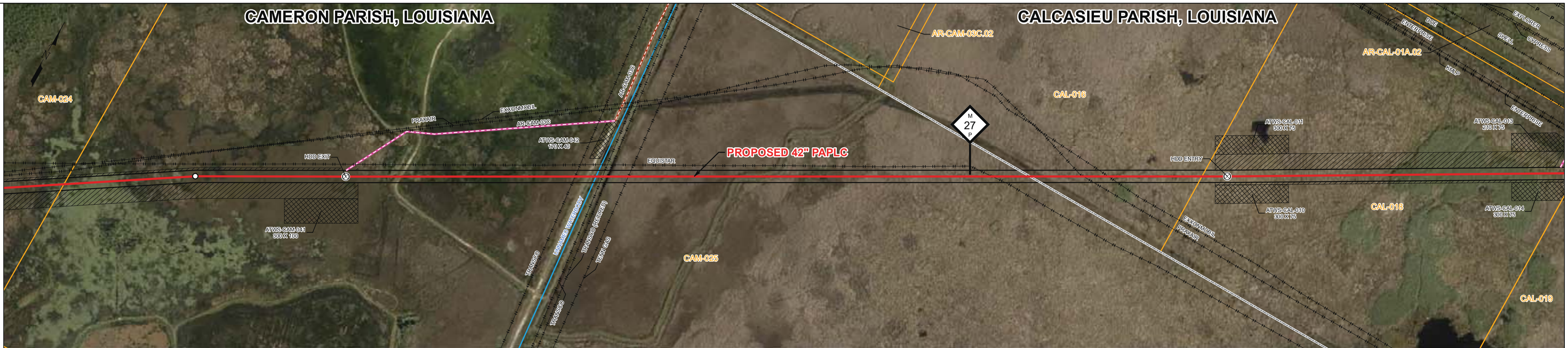
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12004 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

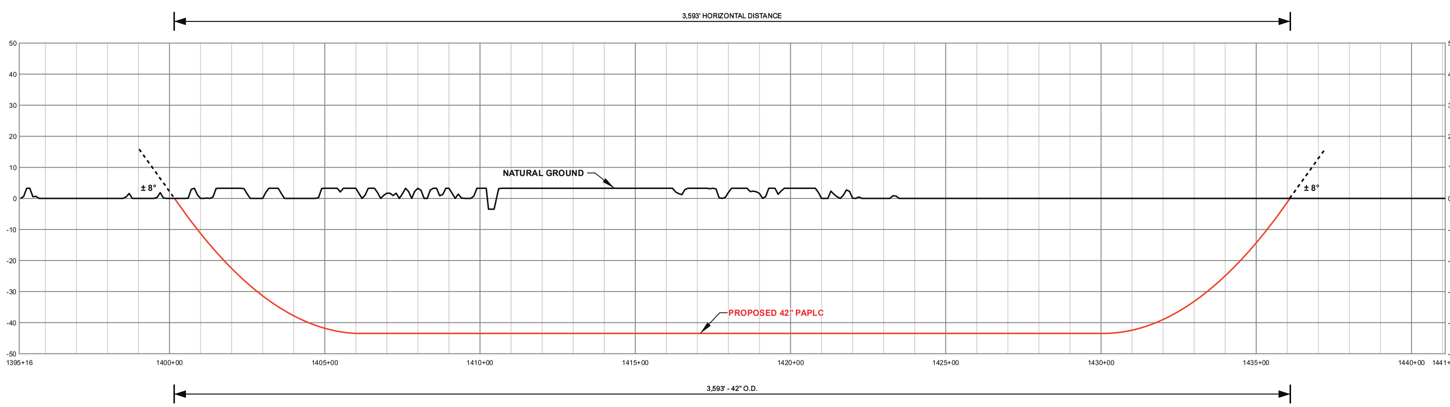


PRELIM. DATA

STATIONING

1400+16 HDD EXIT
1410+37 UNNAMED WATERBODY
1436+09 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	005 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 1400+16 TO 1436+09

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
FOREIGN PIPELINES

CAMERON PARISH / CALCASIEU PARISH — LOUISIANA

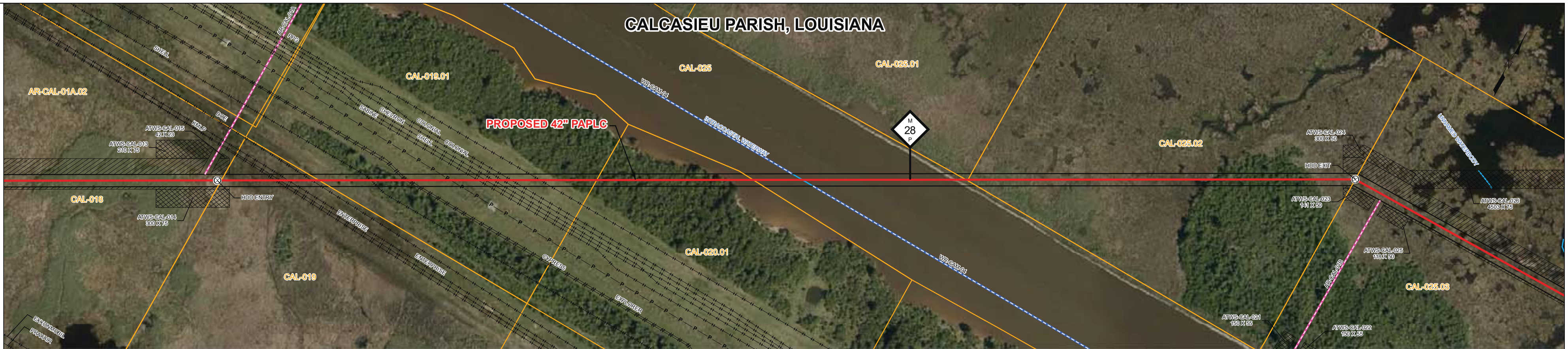
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12005 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)



PRELIM. DATA

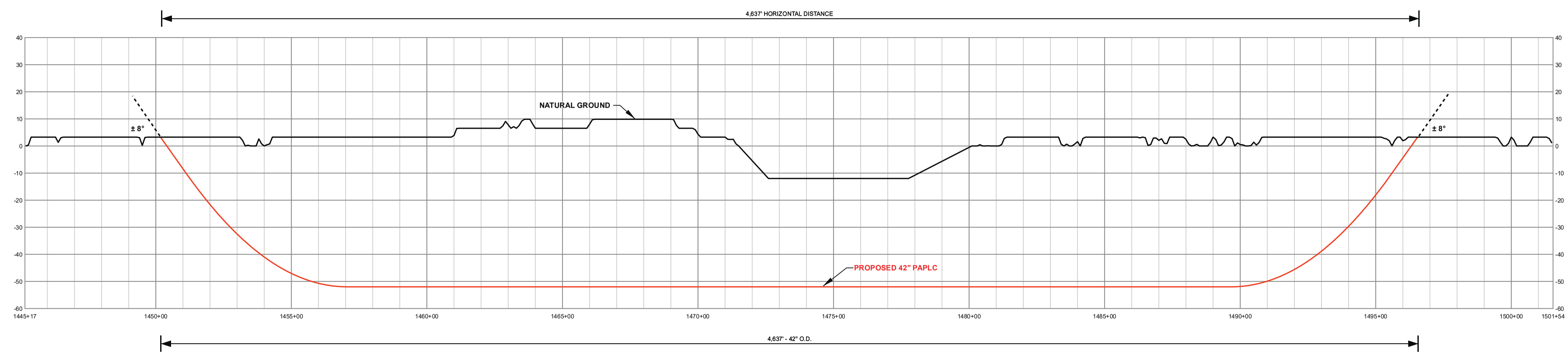
STATIONING

1450+17 HDD ENTRY

1474+02 INTRACOASTAL WATERWAY

1496+54 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	006 OF 026
JOB NO. 23707			
CLIENT SEMPRA LNG AND MIDSTREAM			
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688			

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 1450+17 TO 1496+54

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
INTRACOASTAL WATERWAY

CALCASIEU PARISH LOUISIANA

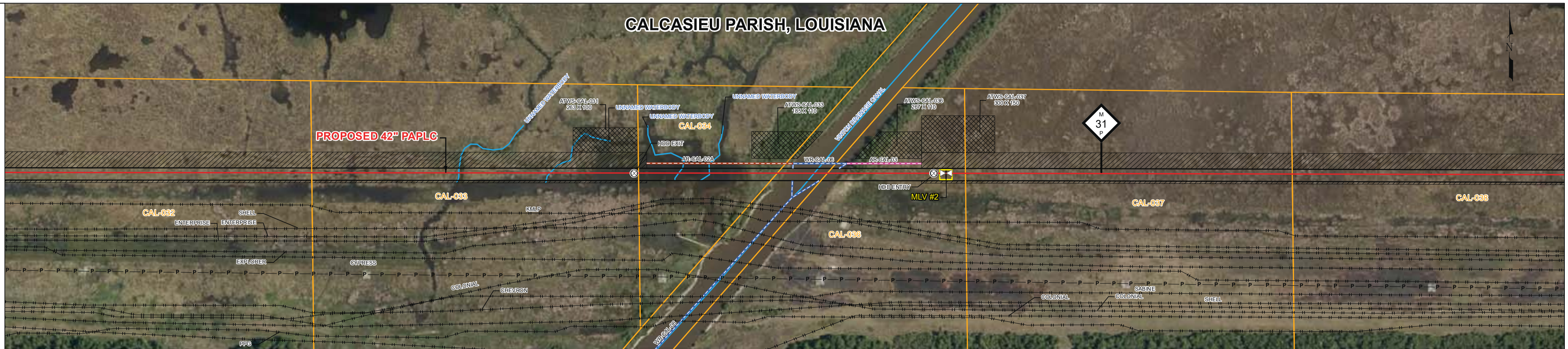
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12006 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

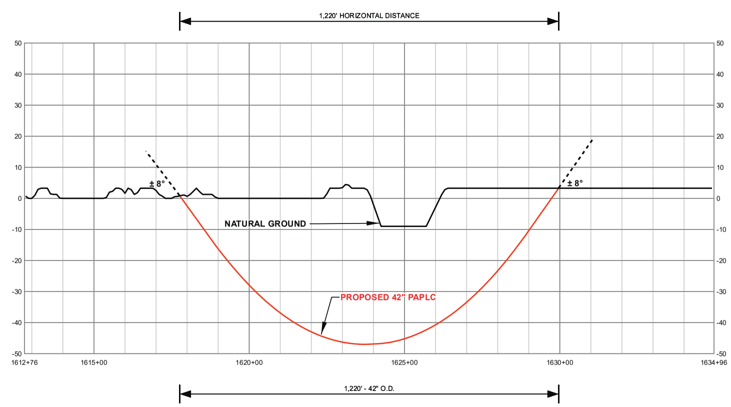


PRELIM. DATA

STATIONING

1617+76 HDD EXIT
1619+52 UNNAMED WATERBODY
1620+81 UNNAMED WATERBODY
1625+04 VINTON DRAINAGE CANAL
1629+96 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	007 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 1617+76 TO 1629+96

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
VINTON DRAINAGE CANAL

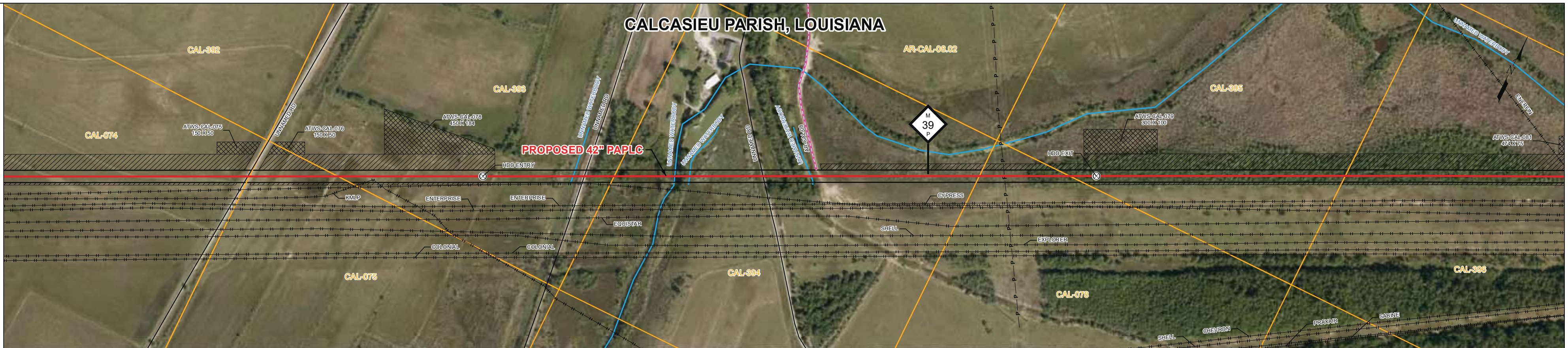
CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12007 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)

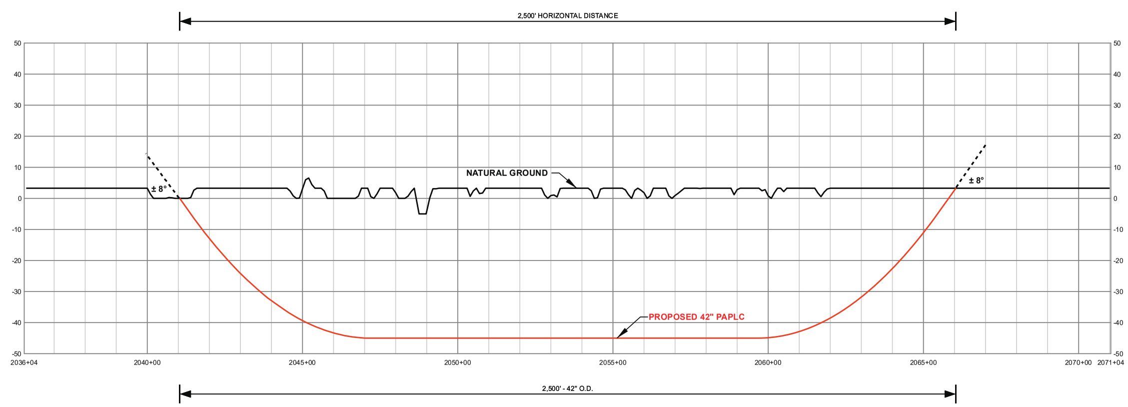


PRELIM. DATA

STATIONING

2041+04 HDD ENTRY
2044+73 UNNAMED WATERBODY
2045+20 UNNAMED RD
2048+87 UNNAMED WATERBODY
2049+48 UNNAMED WATERBODY
2052+48 UNNAMED RD
2054+42 UNNAMED WATERBODY
2066+04 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	008 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 2041+04 TO 2066+04

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
UNNAMED WATERBODY

CALCASIEU PARISH LOUISIANA

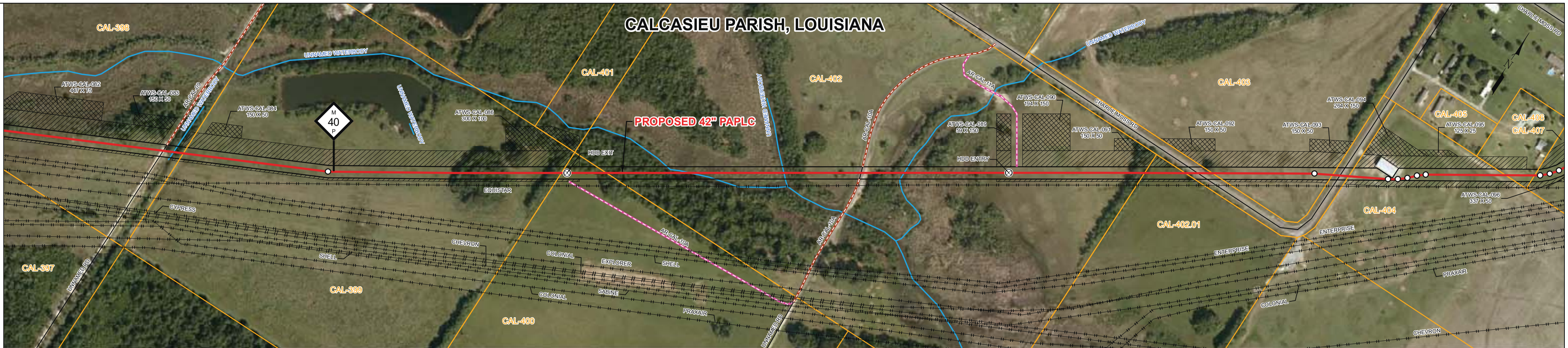
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12008 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

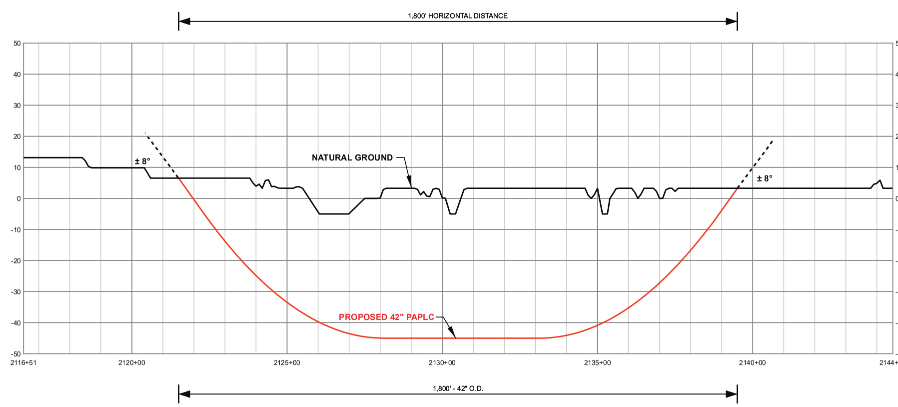


PRELIM. DATA

STATIONING

2121+51 HDD EXIT
2126+50 UNNAMED WATERBODY
2130+34 UNNAMED WATERBODY
2133+49 UNNAMED RD
2135+24 UNNAMED WATERBODY
2139+51 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	009 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. - LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 2121+51 TO 2139+51

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
UNNAMED WATERBODY (3), UNNAMED RD

CALCASIEU PARISH LOUISIANA

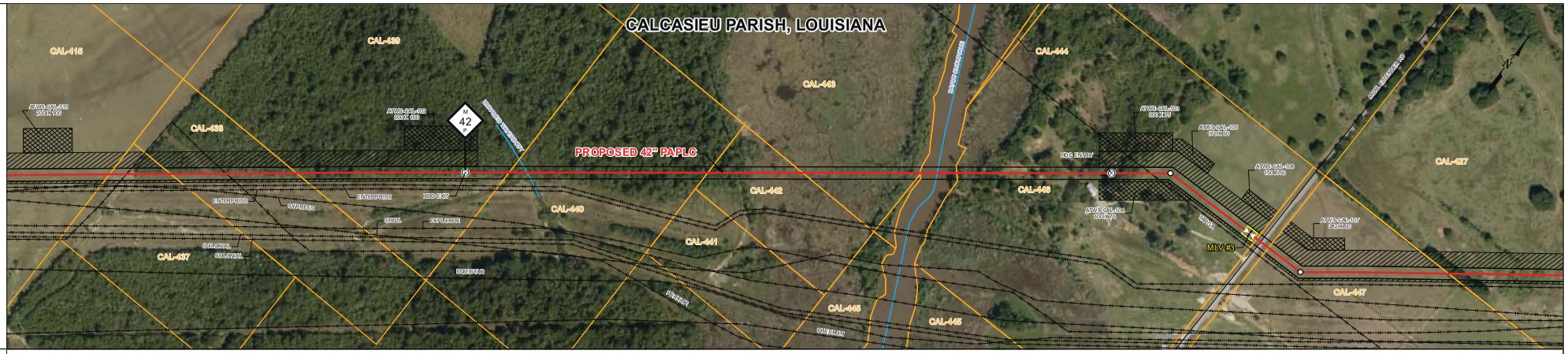
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12009 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XCOS IMAGING, INC. - 04/24/2017)

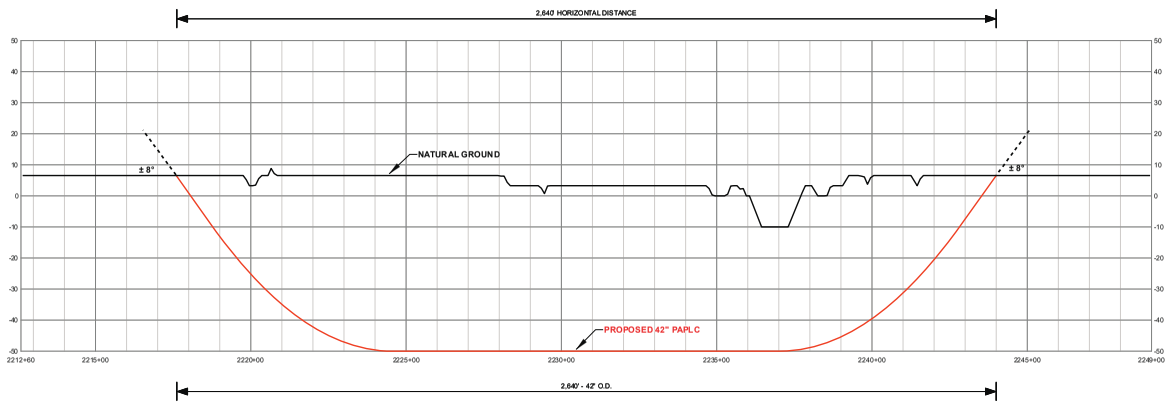


PRELIM. DATA

STATIONING

2217+68 HDD EXIT
2220+13 UNNAMED WATERBODY
2236+87 BAYOU CHOUPIQUE
2244+00 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	09/17/2017
CHKD	CAS	DATE	09/17/2017
APPD	FAT	DATE	09/17/2017
SCALE	1 IN = 200 FT	SHEET	010 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.000 1688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE ### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 2217+60 TO 2244+00

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
BAYOU CHOUPIQUE

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12010 REV. A

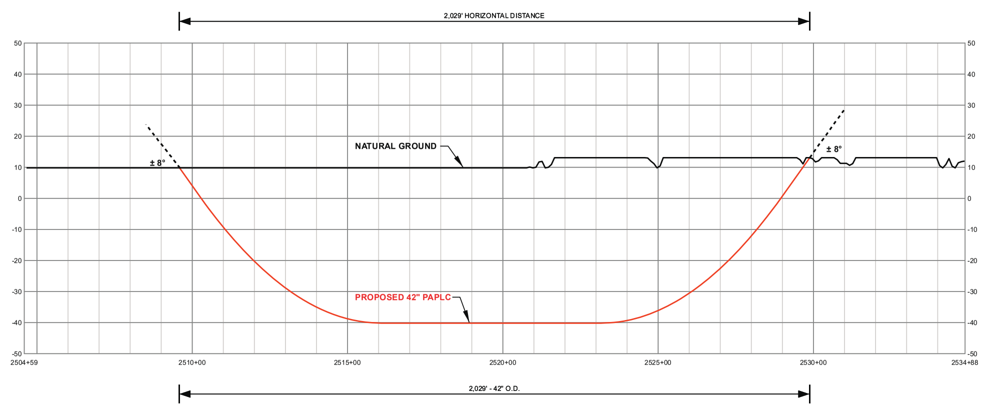
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

2509+59 HDD EXIT
2512+94 WALKER RD
2519+70 UNNAMED WATERBODY
2529+88 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES	PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	011 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 2509+59 TO 2529+88

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

**HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
WALKER RD, FOREIGN PIPELINES**

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12011 REV. A

Document Path: \\houfs1\HOU_Projects\23707\0000_ENG-DSN\507_GEOMATICS_DSN\HDW\Hw_Dir_Drl\23707-507-HDW-12011_RevA.mxd

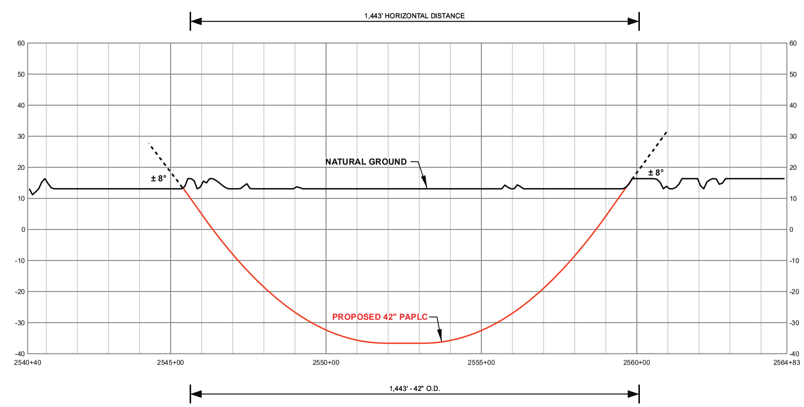
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

2545+40 HDD EXIT
2556+72 UNNAMED WATERBODY
2558+01 UNNAMED WATERBODY
2559+83 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	012 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 2545+40 TO 2559+83

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
FOREIGN PIPELINE

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12012 REV. A

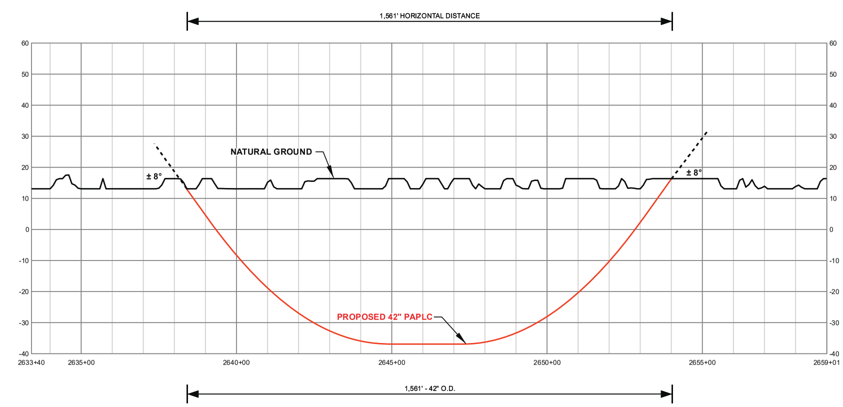
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC - 04/24/2017)

PRELIM. DATA

STATIONING

2638+40 HDD ENTRY
2645+29 INTERSTATE HWY 10 (EASTBOUND)
2647+16 INTERSTATE HWY 10 (WESTBOUND)
2654+01 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	013 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG DESIGN PRESSURE 1440 PSIG
STA. 2638+40 TO 2654+01

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
INTERSTATE HWY 10

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12013 REV. A

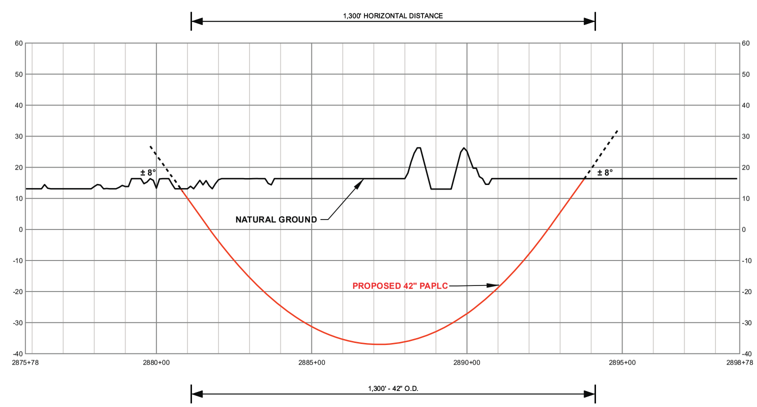
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

2880+78 HDD ENTRY
2887+64 UNNAMED WATERBODY
2889+17 HOUSTON RIVER CANAL
2890+56 UNNAMED WATERBODY
2893+78 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	014 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 2880+78 TO 2893+78

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
HOUSTON RIVER CANAL

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12014 REV. A

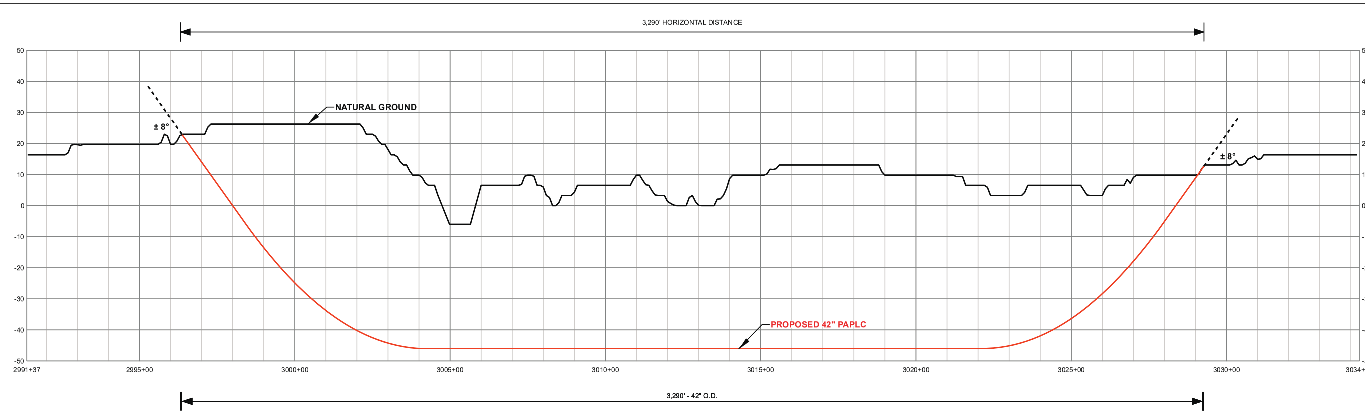
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

2996+37 HDD ENTRY
3005+31 HOUSTON RIVER
3028+08 UNNAMED RD
3029+27 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	015 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 2996+37 TO 3029+27

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
HOUSTON RIVER

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12015 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC - 04/24/2017)

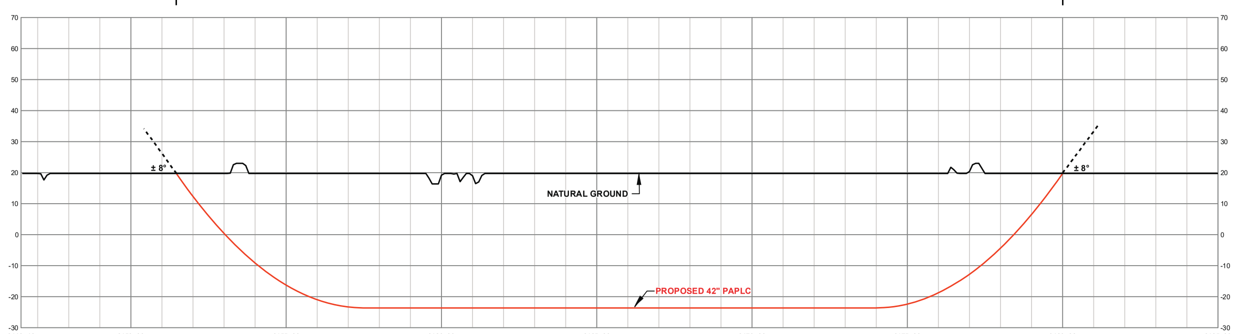
PRELIM. DATA

STATIONING

3151+46 HDD EXIT
3153+43 STATE RTE 27
3159+75 UNNAMED WATERBODY
3163+66 BANKENS RD
3164+20 KANSAS CITY SOUTHERN RR
3164+35 KANSAS CITY SOUTHERN RR
3164+48 KANSAS CITY SOUTHERN RR
3180+00 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)

2,854' HORIZONTAL DISTANCE



2,854' - 42" O.D.

BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	016 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 3151+46 TO 3180+00

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
STATE RTE 27, BANKENS RD, KANSAS CITY SOUTHERN RR
CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

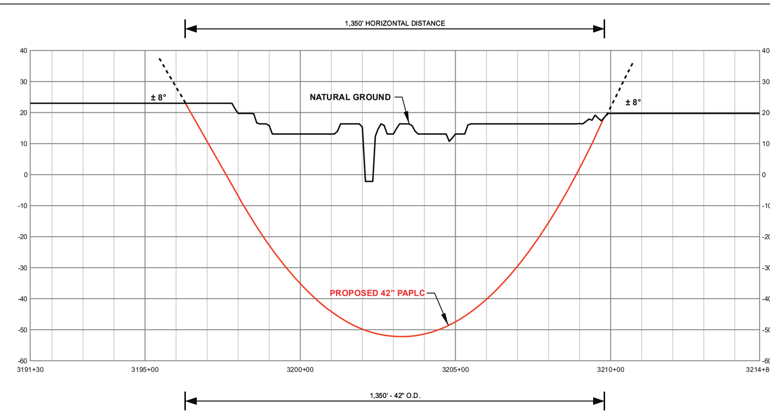
DRAWING NO. 23707-507-HDW-12016 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA | STATIONING

3196+30 HDD ENTRY
3202+22 LITTLE RIVER
3209+80 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES

PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	017 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 3196+30 TO 3209+80

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
LITTLE RIVER

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12017 REV. A

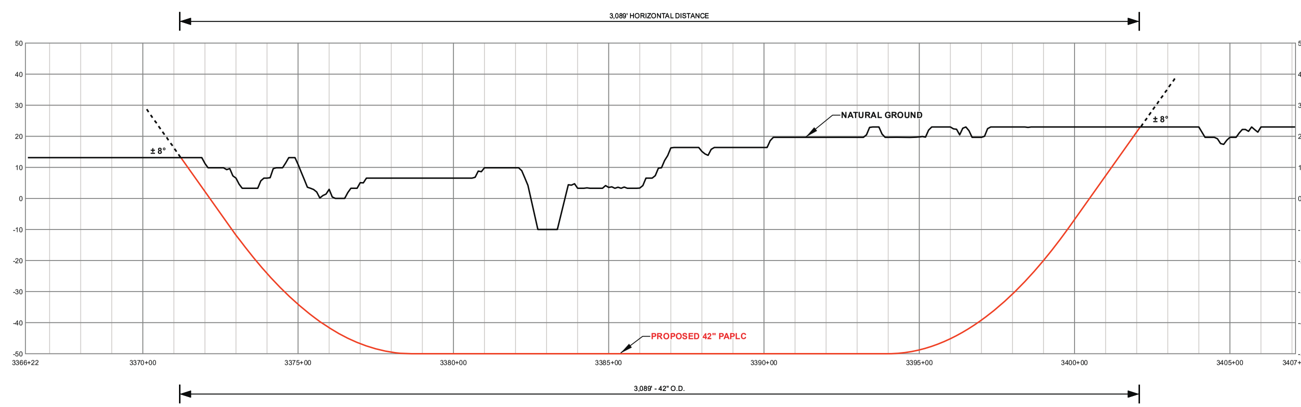
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

3371+22 HDD ENTRY
3373+28 UNNAMED WATERBODY
3383+03 BECKWITH CREEK
3402+11 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST
HDD ENTRY / EXIT
CONTROL POINT (PI)
MAINLINE VALVE (MLV)
PROPOSED ROUTE
IMPROVED ACCESS ROAD
NON-IMPROVED ACCESS ROAD
WATER ACCESS ROUTE
EXISTING SEMPRA PIPELINE
FOREIGN PIPELINE
POWERLINE
RAILROAD
ROAD
WATER CENTERLINE
PERMANENT EASEMENT
TEMPORARY WORKSPACE (TWS)
ADDITIONAL TWS
SITE
WATERBODY
WETLAND
PARCEL TRACT
PARISH/COUNTY BOUNDARY
STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	018 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 3371+22 TO 3402+11

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

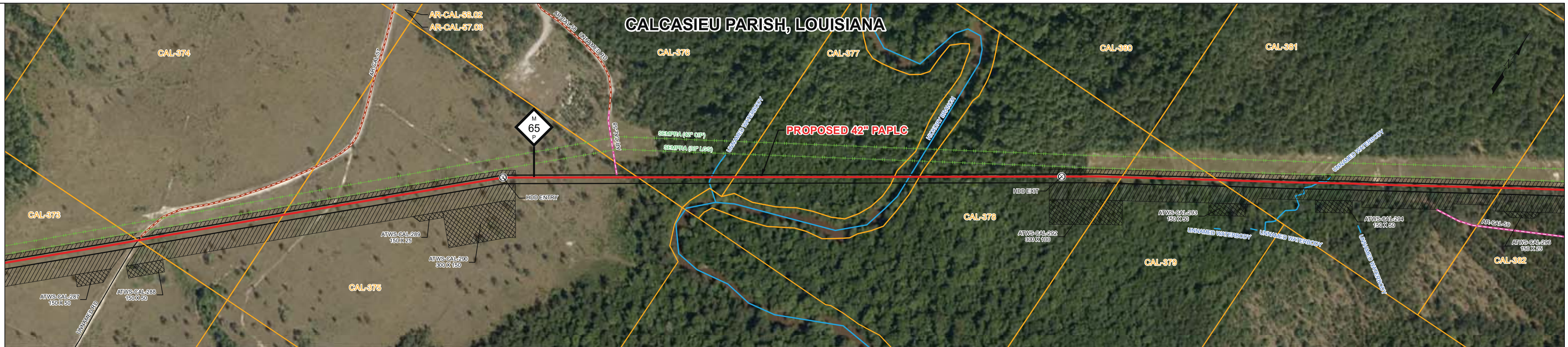
HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
BECKWITH CREEK

CALCASIEU PARISH — LOUISIANA

UniversalPegasus INTERNATIONAL — A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12018 REV. A



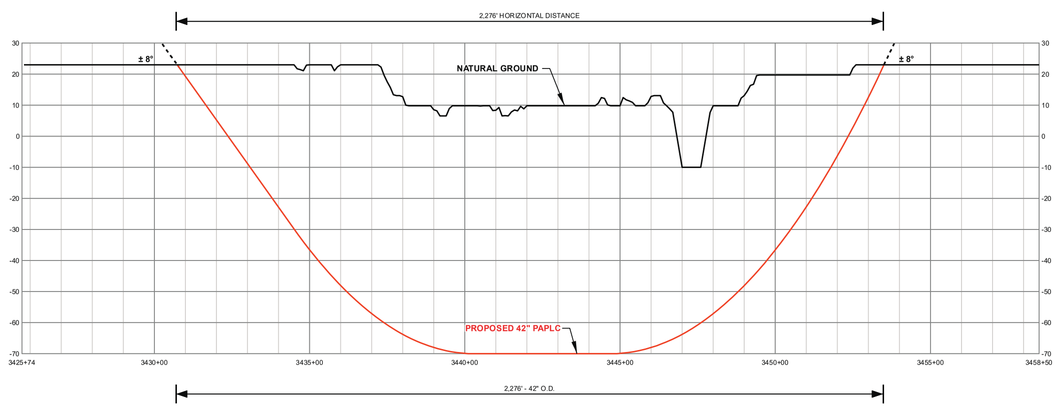
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

3430+74 HDD ENTRY
3439+23 UNNAMED WATERBODY
3447+30 HICKORY BRANCH
3453+50 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	019 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 3430+74 TO 3453+50

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

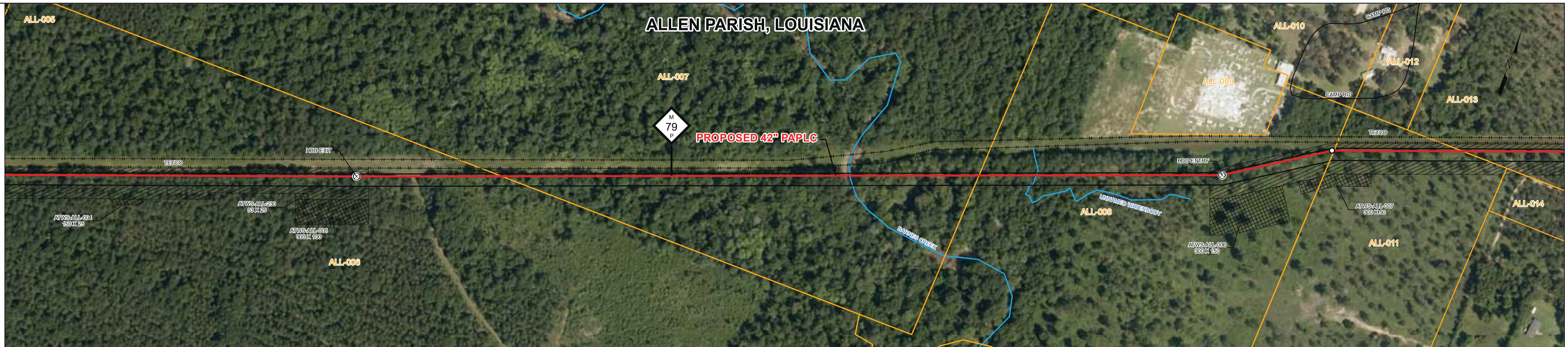
HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
HICKORY BRANCH

CALCASIEU PARISH LOUISIANA

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries
Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12019 REV. A



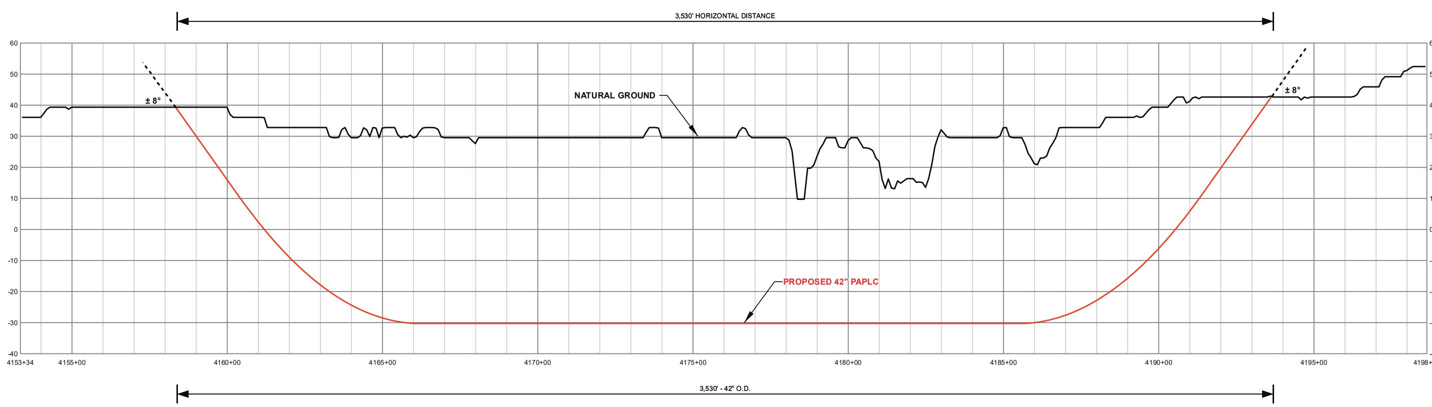
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

4158+34 HDD EXIT
4178+47 BARNES CREEK
4186+07 UNNAMED WATERBODY
4193+64 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

PIPE ASSEMBLIES

PIPE COATING DATA

LEGEND

MILE POST	EXISTING SEMPRA PIPELINE	PERMANENT EASEMENT
HDD ENTRY / EXIT	FOREIGN PIPELINE	TEMPORARY WORKSPACE (TWS)
CONTROL POINT (PI)	POWERLINE	ADDITIONAL TWS
MAINLINE VALVE (MLV)	RAILROAD	SITE
PROPOSED ROUTE	ROAD	WATERBODY
IMPROVED ACCESS ROAD	WATER CENTERLINE	WETLAND
NON-IMPROVED ACCESS ROAD		PARCEL TRACT
WATER ACCESS ROUTE		PARISH/COUNTY BOUNDARY
		STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	020 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 4158+34 TO 4193+64

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
BARNES CREEK

ALLEN PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12020 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XCOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

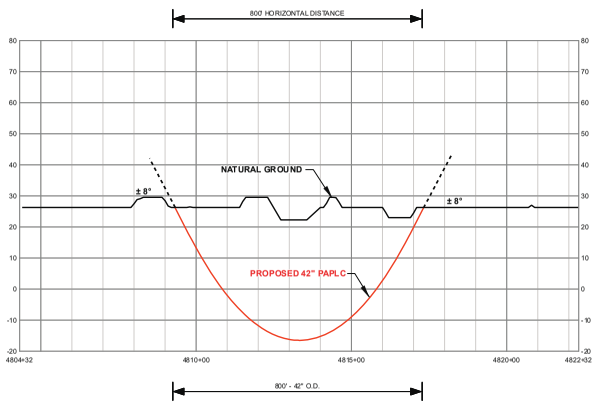
STATIONING

4809+32 HDD ENTRY

4813+15 WHISKY CHITTO CREEK

4817+32 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS 2328)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	021 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PIEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 4809+32 TO 4817+32

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
WHISKY CHITTO CREEK

ALLEN PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12021 REV. A

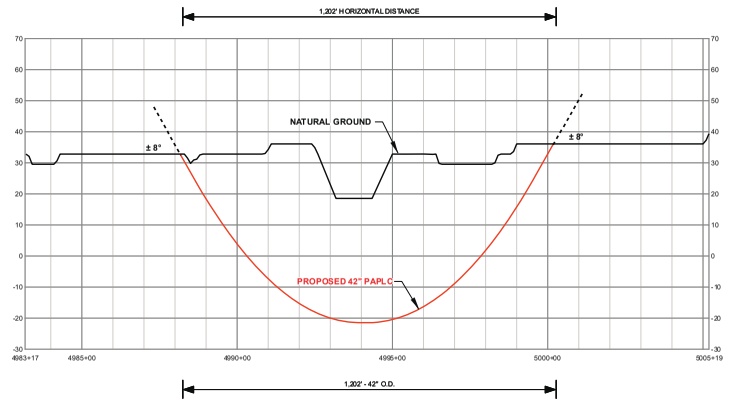
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

4988+17 PI 3°38'53" RT
4988+17 HDD EXIT
4993+78 CALCASIEU RIVER
5000+19 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS 2DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS	GENERAL NOTES
		1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS. 2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA. 3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS. 4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT). 5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING	DISCLAIMER
		UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.
PIPE ASSEMBLIES	PIPE COATING DATA	

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	022 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PIEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG DESIGN PRESSURE 1440 PSIG

STA. 4988+17 TO 5000+19

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
CALCASIEU RIVER

ALLEN PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12022 REV. A

ALLEN PARISH, LOUISIANA

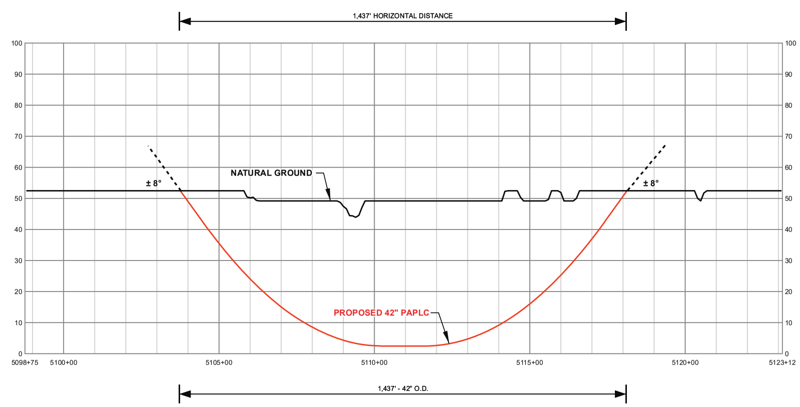
SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

5103+75 HDD EXIT
5109+15 UNNAMED WATERBODY
5113+63 US HWY 165 (SOUTHBOUND)
5114+43 US HWY 165 (NORTHBOUND)
5115+84 UNION PACIFIC RR
5118+12 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS DEM)



BILL OF MATERIALS

MISCELLANEOUS MATERIALS

FITTINGS SUMMARY

CONTINUOUS CONCRETE COATING

PIPE ASSEMBLIES

PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

MILE POST	EXISTING SEMPRA PIPELINE	PERMANENT EASEMENT
HDD ENTRY / EXIT	FOREIGN PIPELINE	TEMPORARY WORKSPACE (TWS)
CONTROL POINT (PI)	POWERLINE	ADDITIONAL TWS
MAINLINE VALVE (MLV)	RAILROAD	SITE
PROPOSED ROUTE	ROAD	WATERBODY
IMPROVED ACCESS ROAD	WATER CENTERLINE	WETLAND
NON-IMPROVED ACCESS ROAD		PARCEL TRACT
WATER ACCESS ROUTE		PARISH/COUNTY BOUNDARY
		STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	023 OF 026

JOB NO. 23707

CLIENT SEMPRA LNG AND MIDSTREAM

UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 5103+75 TO 5118+12

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
US HWY 165, UNION PACIFIC RR

ALLEN PARISH LOUISIANA

UniversalPegasus INTERNATIONAL A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12023 REV. A

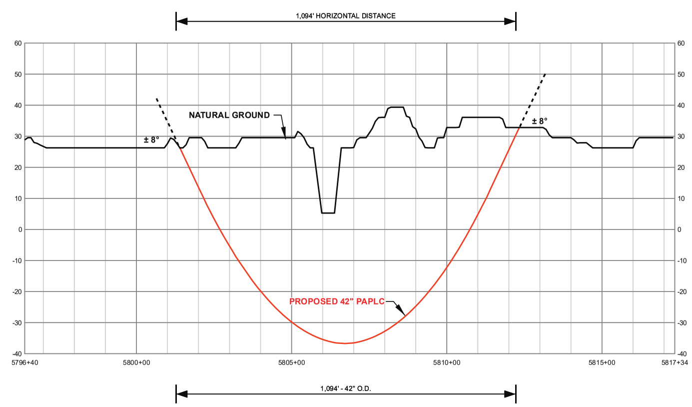
SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

STATIONING

5801+40 HDD EXIT
5802+63 UNNAMED WATERBODY
5806+20 BAYOU NEZPIQUE
5812+34 HDD ENTRY

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	024 OF 026
JOB NO.	23707		
CLIENT	SEMPRA LNG AND MIDSTREAM		

UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG

STA. 5801+40 TO 5812+34

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
BAYOU NEZPIQUE

ALLEN PARISH / EVANGELINE PARISH — LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12024 | REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE: XCOS IMAGING, INC. - 04/24/2017)

PRELIM. DATA

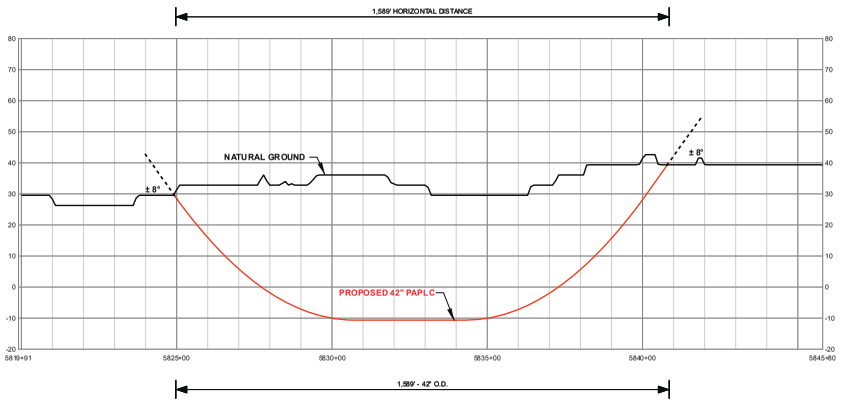
STATIONING

5824+91 PI 19°27'37" RT
5824+91 HDD ENTRY

5826+19 HUNTER RD

5840+80 PI 25°54'04" LT
5840+80 HDD EXIT

GROUND PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE: USGS 2326)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	CONTINUOUS CONCRETE COATING
PIPE ASSEMBLIES	PIPE COATING DATA

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	025 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PIEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG DESIGN PRESSURE 1440 PSIG

STA. 5824+91 TO 5840+80

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
HUNTER RD, POND

EVANGELINE PARISH LOUISIANA

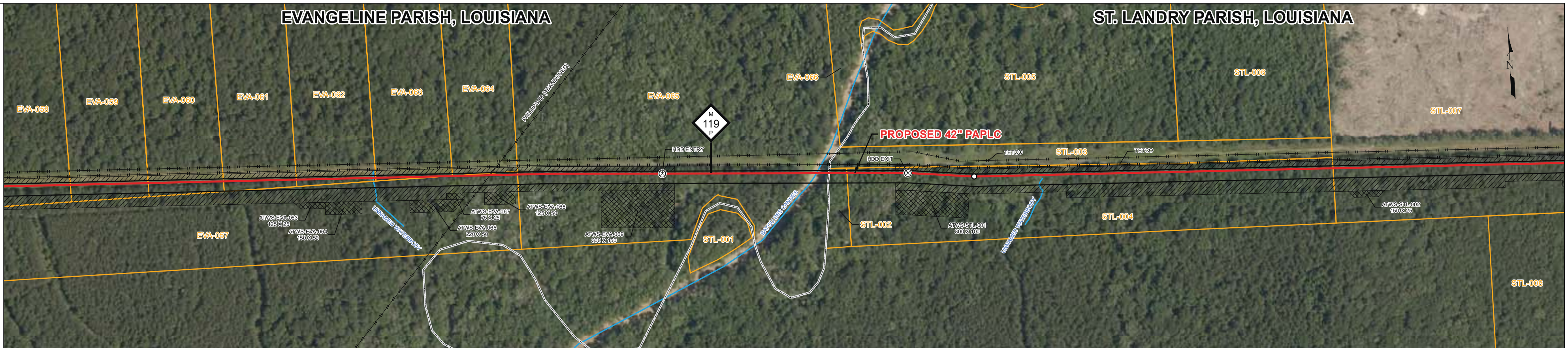
UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12025 REV. A

SCALE: 1" = 200'
(IMAGERY DATA SOURCE:
XEOS IMAGING, INC. - 04/24/2017)

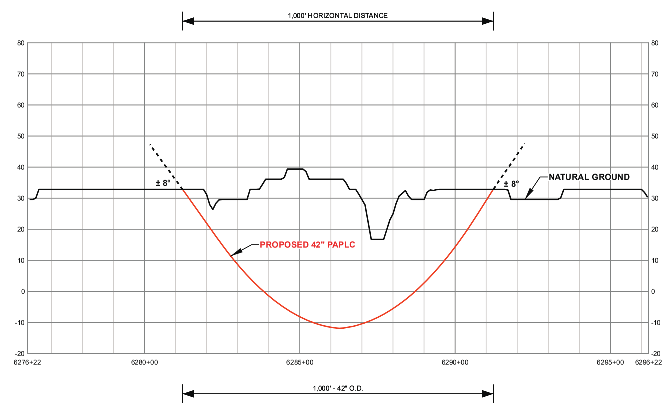


PRELIM. DATA

STATIONING

6281+22 HDD ENTRY
6287+50 BAYOU DES CANNES
6291+22 HDD EXIT

GROUND
PROFILE
HORIZ: 1" = 200'
VERT: 1" = 20'
(ELEVATION DATA SOURCE:
USGS DEM)



BILL OF MATERIALS	MISCELLANEOUS MATERIALS
FITTINGS SUMMARY	**CONTINUOUS CONCRETE COATING**
PIPE ASSEMBLIES	**PIPE COATING DATA**

GENERAL NOTES

1. THE MINIMUM PIPELINE DEPTH OF COVER SHALL BE PER THE CODE OF FEDERAL REGULATIONS.
2. THE BOUNDARIES OF ALL WORK AREAS WILL BE CLEARLY MARKED AND ALL WORK SHALL REMAIN WITHIN THE DESIGNATED WORK AREA.
3. THE CONTRACTOR SHALL ACCESS THE WORK AREA USING ONLY PUBLIC ROADS AND APPROVED ACCESS ROADS.
4. MAP PROJECTION: NAD 1983 UTM ZONE 15N (US FOOT).
5. THE HDD PIPELINE PROFILE WILL NOT EXTEND TO THE NATURAL GRADE AS SHOWN. IT WILL BE TIED-IN BELOW GRADE TO THE MAINLINE.

DISCLAIMER

UNIVERSALPEGASUS INTERNATIONAL MAKES NO WARRANTY (EXPRESSED, IMPLIED OR OTHERWISE) THAT THE INFORMATION CONTAINED HEREIN IS ACCURATE OR COMPLETE AS TO ANY AND ALL SUBSURFACE CONDITIONS AND CONFORMATION. ANY RELIANCE CONTRACTOR PLACES ON THE INFORMATION CONTAINED HEREIN AS TO SUCH CONDITIONS, IS DONE SO AT ITS OWN RISK AND EXPENSE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE STATE "ONE CALL" SYSTEM PRIOR TO ANY EXCAVATION.

LEGEND

- MILE POST
- HDD ENTRY / EXIT
- CONTROL POINT (PI)
- MAINLINE VALVE (MLV)
- PROPOSED ROUTE
- IMPROVED ACCESS ROAD
- NON-IMPROVED ACCESS ROAD
- WATER ACCESS ROUTE
- EXISTING SEMPRA PIPELINE
- FOREIGN PIPELINE
- POWERLINE
- RAILROAD
- ROAD
- WATER CENTERLINE
- PERMANENT EASEMENT
- TEMPORARY WORKSPACE (TWS)
- ADDITIONAL TWS
- SITE
- WATERBODY
- WETLAND
- PARCEL TRACT
- PARISH/COUNTY BOUNDARY
- STATE BOUNDARY

APPROVALS

DRAWN	GLE	DATE	08/17/2017
CHKD	CAS	DATE	08/17/2017
APPD	FAT	DATE	08/17/2017
SCALE	1 IN = 200 FT	SHEET	026 OF 026

JOB NO. 23707
CLIENT SEMPRA LNG AND MIDSTREAM
UNIVERSAL ENSCO, INC. – LOUISIANA ENGINEERING FIRM LIC. # EF.0001688

	APPROVAL	COMPANY
ENVIRONMENTAL		CK ASSOCIATES
LAND		PEHLER & ASSOCIATES, LLC

MIN. TEST PRESSURE #### PSIG | DESIGN PRESSURE 1440 PSIG
STA. 6281+22 TO 6291+22

0 200 400 800
FEET

PORT ARTHUR PIPELINE LOUISIANA CONNECTOR (PAPLC)

HORIZONTAL DIRECTIONAL DRILL CROSSING
PROPOSED 42" PAPLC
BAYOU DES CANNES

EVANGELINE PARISH / ST. LANDRY PARISH LOUISIANA

UniversalPegasus INTERNATIONAL
A Subsidiary of Huntington Ingalls Industries

Port Arthur Pipeline

NO	REVISION	DATE	DRAWN	CHKD	APPD
A	ISSUE FOR PERMITTING	09/21/2017	GLE	CAS	FAT

DRAWING NO. 23707-507-HDW-12026 REV. A

APPENDIX K

WETLANDS AFFECTED BY THE TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS

WETLANDS AFFECTED BY THE TEXAS CONNECTOR PROJECT

APPENDIX K.1

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
Northern Pipeline									
0.2	ESS	TX	Jefferson	Wetland 2	46.8	HDD	0.1	0.1	0.0
0.5	ESS	TX	Jefferson	Wetland 2	1,191.4	Push	1.1	1.1	0.0
0.5	ESS	TX	Jefferson	Wetland 2	0.0	NA	0.3	0.0	0.0
0.9	PEM	TX	Jefferson	Wetland 3	0.0	NA	1.2	0.0	0.0
1.0	PEM	TX	Jefferson	Wetland 1	0.0	NA	6.6	0.0	0.0
1.1	PEM	TX	Jefferson	Wetland 3	748.6	Push	1.5	1.5	0.0
1.5	PEM	TX	Jefferson	Wetland 1	638.0	Push	0.7	0.7	0.0
1.5	PEM	TX	Jefferson	Wetland 1	0.0	NA	0.1	0.0	0.0
1.5	PEM	TX	Jefferson	Wetland 1	70.4	HDD	0.1	0.1	0.0
1.6	PEM	TX	Jefferson	Wetland 3	0.0	NA	0.0	0.0	0.0
1.6	PEM	TX	Jefferson	Wetland 3	130.6	HDD	0.2	0.2	0.0
2.1	ESS	TX	Jefferson	North Route Wetland 24	3,226.6	HDD	3.7	3.7	0.0
2.4	EEM	TX	Jefferson	North Route Wetland 25	192.0	HDD	0.2	0.2	0.0
2.6	EEM	TX	Jefferson	North Route Wetland 26	353.6	HDD	0.4	0.4	0.0
2.7	EEM	TX	Jefferson	North Route Wetland 26	0.0	NA	2.2	0.0	0.0
2.7	EEM	TX	Jefferson	North Route Wetland 26	0.0	NA	0.3	0.0	0.0
2.8	EEM	TX	Jefferson	North Route Wetland 26	1,291.0	Push	1.5	1.5	0.0
3.5	PEM	TX	Jefferson	North Route Wetland 27	6,320.1	Push	7.3	7.3	0.0
3.5	PEM	TX	Jefferson	North Route Wetland 27	0.0	NA	9.6	0.0	0.0
3.5	PEM	TX	Jefferson	North Route Wetland 27	0.0	NA	1.5	0.0	0.0
4.5	PEM	TX	Jefferson	North Route Wetland 27	4,398.2	HDD	5.1	5.1	0.0
5.0	PSS	TX	Jefferson	North Route Wetland 30	0.0	NA	0.0	0.0	0.0
5.2	PSS	TX	Jefferson	North Route Wetland 31	682.7	HDD	0.8	0.8	0.0
5.3	PSS	TX	Jefferson	North Route Wetland 32	127.4	HDD	0.2	0.2	0.0
5.5	PEM	TX	Jefferson	North Route Wetland 33	1,293.7	HDD	1.5	1.5	0.0
5.6	PSS	TX	Jefferson	North Route Wetland 34	195.7	HDD	0.2	0.2	0.0
5.7	PSS	TX	Jefferson	North Route Wetland 35	254.7	HDD	0.3	0.3	0.0
5.7	PUB	TX	Jefferson	North Route Wetland 36	23.4	HDD	0.0	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
5.9	PEM	TX	Jefferson	North Route Wetland 37	1,537.7	HDD	1.8	1.8	0.0
6.1	PEM	TX	Jefferson	North Route Wetland 38	491.8	HDD	0.6	0.6	0.0
6.2	PEM	TX	Jefferson	North Route Wetland 43	514.5	HDD	0.6	0.6	0.0
6.7	PEM	TX	Jefferson	North Route Wetland 43	0.0	NA	1.2	0.0	0.0
6.7	PEM	TX	Jefferson	North Route Wetland 43	0.0	NA	8.0	0.0	0.0
6.7	PEM	TX	Jefferson	North Route Wetland 43	5,223.2	Push	6.0	6.0	0.0
7.3	PEM	TX	Jefferson	North Route Wetland 44	0.0	NA	0.2	0.0	0.0
7.3	PEM	TX	Jefferson	North Route Wetland 44	930.2	Push	1.1	1.1	0.0
7.3	PEM	TX	Jefferson	North Route Wetland 44	0.0	NA	1.4	0.0	0.0
7.4	PEM	TX	Jefferson	North Route Wetland 51	0.0	NA	0.0	0.0	0.0
7.4	PEM	TX	Jefferson	North Route Wetland 51	0.0	NA	0.0	0.0	0.0
7.4	PEM	TX	Jefferson	North Route Wetland 52	451.2	Push	0.5	0.5	0.0
7.4	PEM	TX	Jefferson	North Route Wetland 52	0.0	NA	0.1	0.0	0.0
7.4	PEM	TX	Jefferson	North Route Wetland 52	0.0	NA	0.9	0.0	0.0
7.5	PSS	TX	Jefferson	North Route Wetland 53	0.0	NA	0.1	0.0	0.0
7.5	PSS	TX	Jefferson	North Route Wetland 53	645.0	Push	0.7	0.7	0.0
7.5	PSS	TX	Jefferson	North Route Wetland 53	0.0	NA	0.8	0.0	0.0
7.7	PEM	TX	Jefferson	North Route Wetland 50	0.0	NA	0.2	0.0	0.0
7.7	PEM	TX	Jefferson	North Route Wetland 50	956.0	Push	1.1	1.1	0.0
7.7	PEM	TX	Jefferson	North Route Wetland 50	0.0	NA	1.9	0.0	0.0
7.8	PEM	TX	Jefferson	North Route Wetland 50	154.7	Trench	0.2	0.2	0.0
7.9	PEM	TX	Jefferson	North Route Wetland 54	0.0	NA	0.2	0.0	0.0
7.9	PEM	TX	Jefferson	North Route Wetland 54	0.0	NA	0.0	0.0	0.0
8.1	PEM	TX	Jefferson	North Route Wetland 55	1,914.8	Trench	2.2	2.2	0.0
8.1	PEM	TX	Jefferson	North Route Wetland 55	0.0	NA	2.9	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
8.1	PEM	TX	Jefferson	North Route Wetland 55	0.0	NA	0.5	0.0	0.0
8.3	PEM	TX	Jefferson	North Route Wetland 55	311.6	HDD	0.4	0.4	0.0
8.3	PEM	TX	Jefferson	North Route Wetland 62	3.0	HDD	0.0	0.0	0.0
8.8	PEM	TX	Jefferson	North Route Wetland 66	455.4	HDD	0.5	0.5	0.0
8.9	PSS	TX	Jefferson	North Route Wetland 67	132.4	HDD	0.2	0.2	0.0
8.9	PEM	TX	Jefferson	North Route Wetland 68	205.1	HDD	0.2	0.2	0.0
9.0	PEM	TX	Jefferson	North Route Wetland 68	0.0	NA	0.1	0.0	0.0
9.0	PEM	TX	Jefferson	North Route Wetland 68	0.0	NA	0.9	0.0	0.0
9.0	PEM	TX	Jefferson	North Route Wetland 68	539.9	Push	0.6	0.6	0.0
9.0	PEM	TX	Jefferson	North Route Wetland 58	0.0	NA	0.0	0.0	0.0
9.1	PEM	TX	Jefferson	North Route Wetland 72	0.0	NA	0.2	0.0	0.0
9.1	PEM	TX	Jefferson	North Route Wetland 72	766.0	Push	0.9	0.9	0.0
9.1	PEM	TX	Jefferson	North Route Wetland 72	0.0	NA	1.1	0.0	0.0
9.5	PEM	TX	Jefferson	North Route Wetland 6	2,903.1	Push	3.3	3.3	0.0
9.5	PEM	TX	Jefferson	North Route Wetland 6	0.0	NA	0.9	0.0	0.0
9.5	PEM	TX	Jefferson	North Route Wetland 6	0.0	NA	5.3	0.0	0.0
9.8	PEM	TX	Jefferson	North Route Wetland 6	707.5	Trench	0.8	0.8	0.0
10.0	PSS	TX	Jefferson	North Route Wetland 77	0.0	NA	1.2	0.0	0.0
10.0	PSS	TX	Jefferson	North Route Wetland 77	0.0	NA	0.2	0.0	0.0
10.0	PSS	TX	Jefferson	North Route Wetland 77	695.9	Trench	0.5	0.5	0.0
10.0	PSS	TX	Jefferson	North Route Wetland 77	772.8	HDD	1.2	1.2	0.0
10.2	PEM	TX	Jefferson	North Route Wetland 78	71.1	HDD	0.1	0.1	0.0
10.3	PSS	TX	Jefferson	North Route Wetland 79	417.7	HDD	0.5	0.5	0.0
10.4	PSS	TX	Jefferson	North Route Wetland 80	844.9	HDD	1.0	1.0	0.0
10.5	PEM	TX	Jefferson	North Route Wetland 73	43.6	HDD	0.0	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
10.5	PEM	TX	Jefferson	North Route Wetland 81	40.7	HDD	0.1	0.1	0.0
10.5	PEM	TX	Jefferson	North Route Wetland 82	27.3	HDD	0.0	0.0	0.0
10.6	PEM	TX	Jefferson	North Route Wetland 83	130.8	HDD	0.3	0.3	0.0
10.6	PEM	TX	Jefferson	North Route Wetland 84	607.1	HDD	0.6	0.6	0.0
10.7	PUB	TX	Jefferson	North Route Wetland 85	921.5	HDD	1.0	1.0	0.0
10.9	PEM	TX	Jefferson	North Route Wetland 87	174.9	HDD	0.2	0.2	0.0
10.9	PEM	TX	Jefferson	North Route Wetland 87	0.0	NA	0.1	0.0	0.0
10.9	PEM	TX	Jefferson	North Route Wetland 87	0.0	NA	0.1	0.0	0.0
10.9	PEM	TX	Jefferson	North Route Wetland 87	124.6	Trench	0.1	0.1	0.0
10.9	PEM	TX	Jefferson	North Route Wetland 88	0.0	NA	0.0	0.0	0.0
11.1	PEM	TX	Jefferson	North Route Wetland 89	0.0	NA	0.1	0.0	0.0
11.1	PEM	TX	Jefferson	North Route Wetland 89	738.2	Trench	0.9	0.9	0.0
11.1	PEM	TX	Jefferson	North Route Wetland 89	0.0	NA	1.8	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 91	0.0	NA	0.1	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 91	0.0	NA	0.0	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 96	2.7	Trench	0.0	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 96	0.0	NA	0.0	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 95	0.0	NA	0.8	0.0	0.0
11.3	PEM	TX	Jefferson	North Route Wetland 95	626.6	Trench	0.7	0.7	0.0
11.4	PEM	TX	Jefferson	North Route Wetland 95	0.0	NA	0.1	0.0	0.0
11.4	PEM	TX	Jefferson	North Route Wetland 97	298.8	Trench	0.3	0.3	0.0
11.4	PEM	TX	Jefferson	North Route Wetland 97	0.0	NA	0.1	0.0	0.0
11.5	PEM	TX	Jefferson	North Route Wetland 97	0.0	NA	0.5	0.0	0.0
11.6	PEM	TX	Jefferson	North Route Wetland 98	0.0	NA	0.0	0.0	0.0
11.6	PEM	TX	Jefferson	North Route Wetland 98	163.7	HDD	0.2	0.2	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
11.7	PSS	TX	Jefferson	North Route Wetland 99	332.6	HDD	0.4	0.4	0.0
11.9	PEM	TX	Jefferson	North Route Wetland 100	763.6	HDD	0.9	0.9	0.0
12.1	PEM	TX	Jefferson	North Route Wetland 102	869.6	HDD	1.0	1.0	0.0
12.3	PEM	TX	Jefferson	North Route Wetland 102	0.0	NA	0.2	0.0	0.0
12.3	PEM	TX	Jefferson	North Route Wetland 102	835.3	Trench	0.9	0.9	0.0
12.3	PEM	TX	Jefferson	North Route Wetland 102	0.0	NA	0.9	0.0	0.0
12.7	PEM	TX	Jefferson	North Route Wetland 105	0.0	NA	0.1	0.0	0.0
12.7	PEM	TX	Jefferson	North Route Wetland 105	398.6	Trench	0.5	0.5	0.0
12.7	PEM	TX	Jefferson	North Route Wetland 105	0.0	NA	0.4	0.0	0.0
13.1	PEM	TX	Jefferson	North Route Wetland 111	397.9	HDD	0.5	0.5	0.0
13.2	PEM	TX	Jefferson	North Route Wetland 112	17.4	HDD	0.0	0.0	0.0
13.3	PEM	TX	Jefferson	North Route Wetland 114	77.9	HDD	0.1	0.1	0.0
13.3	PUB	TX	Jefferson	North Route Wetland 113	0.0	NA	0.0	0.0	0.0
13.3	PEM	TX	Jefferson	North Route Wetland 114	0.0	NA	0.0	0.0	0.0
13.3	PEM	TX	Jefferson	North Route Wetland 114	0.0	NA	0.0	0.0	0.0
13.3	PEM	TX	Jefferson	North Route Wetland 115	0.0	NA	0.0	0.0	0.0
13.6	PEM	TX	Jefferson	North Route Wetland 117	0.0	NA	0.0	0.0	0.0
13.6	PEM	TX	Jefferson	North Route Wetland 117	0.0	NA	0.0	0.0	0.0
13.7	PEM	TX	Jefferson	North Route Wetland 124	37.1	Trench	0.0	0.0	0.0
14.0	PEM	TX	Jefferson	North Route Wetland 126	0.0	NA	0.1	0.1	0.0
14.0	PEM	TX	Jefferson	North Route Wetland 126	0.0	NA	0.0	0.0	0.0
14.1	PEM	TX	Jefferson	North Route Wetland 128	0.0	NA	0.0	0.0	0.0
14.2	PEM	TX	Jefferson	North Route Wetland 129	0.0	NA	0.0	0.0	0.0
14.2	PUB	TX	Jefferson	North Route Wetland 130	220.4	HDD	0.1	0.1	0.0
16.1	PEM	TX	Jefferson	North Route Wetland 132	0.0	NA	0.4	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
16.1	PEM	TX	Jefferson	North Route Wetland 132	1,998.4	Trench	2.3	2.3	0.0
16.1	PEM	TX	Jefferson	North Route Wetland 132	0.0	NA	2.0	0.0	0.0
16.5	PEM	TX	Jefferson	North Route Wetland 133	0.0	NA	0.7	0.0	0.0
16.5	PEM	TX	Jefferson	North Route Wetland 133	336.3	Trench	0.4	0.4	0.0
16.6	PEM	TX	Jefferson	North Route Wetland 134	111.9	Trench	0.3	0.3	0.0
16.6	PEM	TX	Jefferson	North Route Wetland 134	0.0	NA	0.6	0.0	0.0
16.7	PEM	TX	Jefferson	North Route Wetland 135	0.0	NA	0.0	0.0	0.0
16.8	PEM	TX	Jefferson	North Route Wetland 136	202.3	Trench	0.3	0.3	0.0
16.8	PEM	TX	Jefferson	North Route Wetland 136	0.0	NA	0.5	0.0	0.0
16.9	PEM	TX	Jefferson	North Route Wetland 137	0.0	NA	0.0	0.0	0.0
16.9	PEM	TX	Jefferson	North Route Wetland 137	0.0	NA	0.0	0.0	0.0
16.9	PEM	TX	Jefferson	North Route Wetland 138	52.9	Trench	0.1	0.1	0.0
16.9	PEM	TX	Jefferson	North Route Wetland 138	0.0	NA	0.0	0.0	0.0
17.2	PEM	TX	Jefferson	North Route Wetland 140	0.0	NA	0.0	0.0	0.0
17.2	PEM	TX	Jefferson	North Route Wetland 140	0.0	NA	0.1	0.0	0.0
17.5	PEM	TX	Jefferson	North Route Wetland 141	0.0	NA	0.0	0.0	0.0
17.8	PFO	TX	Jefferson	North Route Wetland 144	0.0	NA	0.0	0.0	0.0
17.8	PEM	TX	Jefferson	North Route Wetland 143	423.4	HDD	0.2	0.2	0.0
18.0	PEM	TX	Jefferson	North Route Wetland 145	791.7	HDD	0.1	0.1	0.0
18.1	PFO	TX	Jefferson	North Route Wetland 146	306.4	HDD	0.0	0.0	0.0
18.1	PFO	TX	Jefferson	North Route Wetland 146	0.0	NA	0.2	0.0	0.0
18.1	PFO	TX	Jefferson	North Route Wetland 146	0.0	NA	0.2	0.0	0.0
18.1	PFO	TX	Jefferson	North Route Wetland 146	247.2	Trench	0.0	0.0	0.0
18.1	PEM	TX	Jefferson	North Route Wetland 147	0.0	NA	0.2	0.0	0.0
18.1	PEM	TX	Jefferson	North Route Wetland 145	0.0	NA	0.2	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
18.1	PEM	TX	Jefferson	North Route Wetland 145	0.0	NA	0.3	0.0	0.0
18.1	PEM	TX	Jefferson	North Route Wetland 145	142.4	Trench	0.0	0.0	0.0
18.2	PFO	TX	Jefferson	North Route Wetland 150	0.0	NA	0.0	0.0	0.0
18.2	PEM	TX	Jefferson	North Route Wetland 145	118.3	HDD	0.0	0.0	0.0
18.3	PEM	TX	Jefferson	North Route Wetland 151	54.7	HDD	0.0	0.0	0.0
18.5	PEM	TX	Jefferson	North Route Wetland 153	0.0	NA	0.2	0.0	0.0
18.5	PEM	TX	Jefferson	North Route Wetland 153	159.2	Trench	0.0	0.0	0.0
18.6	PEM	TX	Jefferson	North Route Wetland 153	0.0	NA	0.4	0.0	0.0
18.8	PEM	TX	Jefferson	North Route Wetland 155	177.8	HDD	0.0	0.0	0.0
19.0	PSS	TX	Jefferson	North Route Wetland 159	0.0	NA	0.1	0.0	0.0
19.0	PSS	TX	Jefferson	North Route Wetland 159	8.1	HDD	0.1	0.1	0.0
19.0	PSS	TX	Jefferson	North Route Wetland 159	0.0	NA	0.0	0.0	0.0
19.2	PFO	TX	Jefferson	North Route Wetland 160	0.0	NA	0.2	0.0	0.0
19.2	PFO	TX	Jefferson	North Route Wetland 160	933.7	Trench	1.1	1.1	1.1
19.2	PFO	TX	Jefferson	North Route Wetland 160	0.0	NA	0.7	0.0	0.0
19.3	PFO	TX	Jefferson	North Route Wetland 162	0.0	NA	0.4	0.0	0.0
19.3	PFO	TX	Jefferson	North Route Wetland 162	464.9	Trench	0.5	0.5	0.5
19.3	PFO	TX	Jefferson	North Route Wetland 162	0.0	NA	0.1	0.0	0.0
19.4	PFO	TX	Jefferson	North Route Wetland 163	0.0	NA	0.9	0.0	0.0
19.4	PFO	TX	Jefferson	North Route Wetland 163	595.7	Trench	0.7	0.7	0.7
19.4	PFO	TX	Jefferson	North Route Wetland 163	0.0	NA	0.1	0.0	0.0
19.9	PFO	TX	Jefferson	North Route Wetland 166	395.5	HDD	0.5	0.5	0.5
19.9	PEM	TX	Jefferson	North Route Wetland 169	56.0	HDD	0.1	0.1	0.0
20.0	PFO	TX	Jefferson	North Route Wetland 170	91.7	HDD	0.1	0.1	0.1
20.0	PEM	TX	Jefferson	North Route Wetland 171	22.3	HDD	0.0	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
20.0	PEM	TX	Jefferson	North Route Wetland 172	34.5	HDD	0.0	0.0	0.0
20.7	PEM	TX	Jefferson	North Route Wetland 178	60.0	HDD	0.1	0.1	0.0
21.1	PFO	TX	Jefferson	North Route Wetland 179	0.0	NA	3.0	0.0	0.0
21.2	PEM	TX	Jefferson	North Route Wetland 180	0.0	NA	0.0	0.0	0.0
21.2	PEM	TX	Jefferson	North Route Wetland 180	46.1	Trench	0.0	0.0	0.0
21.2	PEM	TX	Jefferson	North Route Wetland 180	0.0	NA	0.0	0.0	0.0
21.3	PEM	TX	Jefferson	North Route Wetland 181	0.0	NA	0.1	0.0	0.0
21.3	PEM	TX	Jefferson	North Route Wetland 181	44.6	Trench	0.0	0.0	0.0
21.5	PFO	TX	Jefferson	North Route Wetland 182	0.0	NA	0.0	0.0	0.0
21.5	PFO	TX	Jefferson	North Route Wetland 182	0.0	NA	0.1	0.0	0.0
21.6	PSS	TX	Jefferson	North Route Wetland 184	68.5	Trench	0.1	0.1	0.0
21.6	PSS	TX	Jefferson	North Route Wetland 184	0.0	NA	0.1	0.0	0.0
22.5	PFO	TX	Orange	North Route Wetland 192	0.0	NA	0.7	0.0	0.0
22.6	PFO	TX	Orange	North Route Wetland 192	285.8	Trench	0.0	0.0	0.0
22.6	PFO	TX	Orange	North Route Wetland 192	0.0	NA	0.2	0.0	0.0
22.9	PEM	TX	Orange	North Route Wetland 193	0.0	NA	0.3	0.0	0.0
22.9	PEM	TX	Orange	North Route Wetland 193	312.1	Trench	0.0	0.0	0.0
22.9	PEM	TX	Orange	North Route Wetland 193	0.0	NA	0.6	0.0	0.0
23.0	PSS	TX	Orange	North Route Wetland 194	98.9	Trench	0.0	0.0	0.0
23.0	PSS	TX	Orange	North Route Wetland 194	0.0	NA	0.2	0.0	0.0
23.0	PSS	TX	Orange	North Route Wetland 194	0.0	NA	0.2	0.0	0.0
23.1	PSS	TX	Orange	North Route Wetland 194	1,913.9	HDD	0.2	0.2	0.0
23.4	PUB	TX	Orange	North Route Wetland 197	1,167.6	HDD	0.1	0.1	0.0
23.6	PFO	TX	Orange	North Route Wetland 214	580.5	HDD	0.1	0.1	0.1
23.7	PFO	TX	Orange	North Route Wetland 214	0.0	NA	0.4	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
23.7	PFO	TX	Orange	North Route Wetland 214	459.7	Trench	0.0	0.0	0.0
23.7	PFO	TX	Orange	North Route Wetland 214	0.0	NA	1.1	0.0	0.0
23.8	PEM	TX	Orange	North Route Wetland 215	0.0	NA	0.1	0.0	0.0
23.8	PEM	TX	Orange	North Route Wetland 215	116.6	Trench	0.0	0.0	0.0
23.8	PEM	TX	Orange	North Route Wetland 215	0.0	NA	0.2	0.0	0.0
23.8	PSS	TX	Orange	North Route Wetland 216	245.1	Trench	0.0	0.0	0.0
23.8	PSS	TX	Orange	North Route Wetland 216	0.0	NA	0.4	0.0	0.0
23.9	PSS	TX	Orange	North Route Wetland 216	0.0	NA	1.2	0.0	0.0
23.9	PSS	TX	Orange	North Route Wetland 216	444.0	Push	0.3	0.3	0.0
24.0	PFO	TX	Orange	North Route Wetland 217	853.2	Push	1.0	1.0	1.0
24.0	PFO	TX	Orange	North Route Wetland 217	0.0	NA	0.2	0.0	0.0
24.0	PFO	TX	Orange	North Route Wetland 217	0.0	NA	1.4	0.0	0.0
24.3	PSS	TX	Orange	North Route Wetland 218	0.0	NA	0.5	0.0	0.0
24.3	PSS	TX	Orange	North Route Wetland 218	323.4	Push	0.4	0.4	0.0
24.3	PSS	TX	Orange	North Route Wetland 218	0.0	NA	0.1	0.0	0.0
24.4	PSS	TX	Orange	North Route Wetland 221	41.4	Push	0.1	0.1	0.0
24.4	PSS	TX	Orange	North Route Wetland 221	0.0	NA	0.1	0.0	0.0
24.4	PSS	TX	Orange	North Route Wetland 221	0.0	NA	0.0	0.0	0.0
24.4	PSS	TX	Orange	North Route Wetland 221	27.5	Trench	0.0	0.0	0.0
24.5	PFO	TX	Orange	North Route Wetland 222	0.0	NA	0.1	0.0	0.0
24.5	PFO	TX	Orange	North Route Wetland 222	74.3	Trench	0.1	0.1	0.1
24.5	PFO	TX	Orange	North Route Wetland 222	0.0	NA	0.0	0.0	0.0
24.5	PFO	TX	Orange	North Route Wetland 223	0.0	NA	0.1	0.0	0.0
24.5	PFO	TX	Orange	North Route Wetland 223	172.4	Trench	0.3	0.3	0.3
24.5	PFO	TX	Orange	North Route Wetland 223	0.0	NA	0.3	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
24.6	PFO	TX	Orange	North Route Wetland 226B	145.3	HDD	0.2	0.2	0.2
24.7	PUB	TX	Orange	North Route Wetland 227	121.4	HDD	0.1	0.1	0.0
24.7	PEM	TX	Orange	North Route Wetland 226	550.8	HDD	0.7	0.7	0.0
24.9	PUB	TX	Orange	North Route Wetland 228	181.6	HDD	0.2	0.2	0.0
25.0	PUB	TX	Orange	North Route Wetland 230	168.5	HDD	0.2	0.2	0.0
25.0	PEM	TX	Orange	North Route Wetland 229	620.4	HDD	0.7	0.7	0.0
				Subtotal	**67,529.6**		**145.0**	**69.8**	**4.5**
Northern Pipeline Access Roads									
AR-N-1	PEM	TX	Jefferson	North Route Wetland 22	0.0	Access Road Construction	0.3	0.0	0.0
AR-N-1	PEM	TX	Jefferson	Wetland 1	0.0	Access Road Construction	1.2	0.0	0.0
AR-N-1	PEM	TX	Jefferson	Wetland 3	0.0	Access Road Construction	1.5	0.0	0.0
AR-N-10	PEM	TX	Jefferson	North Route Wetland 103	0.0	Access Road Construction	0.4	0.0	0.0
AR-N-10	PEM	TX	Jefferson	North Route Wetland 104	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-11	PEM	TX	Jefferson	North Route Wetland 106	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-11	PEM	TX	Jefferson	North Route Wetland 110	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-12	PEM	TX	Jefferson	North Route Wetland 117	0.0	Access Road Construction	0.8	0.0	0.0
AR-N-12	PEM	TX	Jefferson	North Route Wetland 118	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-12	PEM	TX	Jefferson	North Route Wetland 119	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-12	PEM	TX	Jefferson	North Route Wetland 120	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-12	PEM	TX	Jefferson	North Route Wetland 121	0.0	Access Road Construction	2.4	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
AR-N-12	PFO	TX	Jefferson	North Route Wetland 122	0.0	Access Road Construction	0.6	0.0	0.0
AR-N-19	PEM	TX	Jefferson	North Route Wetland 161	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-2	PEM	TX	Jefferson	North Route Wetland 37	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-2	PEM	TX	Jefferson	North Route Wetland 39	0.0	Access Road Construction	0.5	0.0	0.0
AR-N-2	PEM	TX	Jefferson	North Route Wetland 42	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-2	PSS	TX	Jefferson	North Route Wetland 40	0.0	Access Road Construction	0.7	0.0	0.0
AR-N-24	PEM	TX	Orange	North Route Wetland 199	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-24	PEM	TX	Orange	North Route Wetland 200	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-24	PEM	TX	Orange	North Route Wetland 202	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-24	PFO	TX	Orange	North Route Wetland 191	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-24	PFO	TX	Orange	North Route Wetland 203	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-24	PSS	TX	Orange	North Route Wetland 189	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-24	PSS	TX	Orange	North Route Wetland 198	0.0	Access Road Construction	0.6	0.0	0.0
AR-N-25	PUB	TX	Orange	North Route Wetland 205	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-25	PEM	TX	Orange	North Route Wetland 207	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-25	PEM	TX	Orange	North Route Wetland 212	0.0	Access Road Construction	0.4	0.0	0.0
AR-N-25	PFO	TX	Orange	North Route Wetland 206	0.0	Access Road Construction	0.1	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
AR-N-25	PFO	TX	Orange	North Route Wetland 208	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-25	PFO	TX	Orange	North Route Wetland 211	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-25	PFO	TX	Orange	North Route Wetland 204	0.0	Access Road Construction	0.3	0.0	0.0
AR-N-25	PFO	TX	Orange	North Route Wetland 209	0.0	Access Road Construction	3.7	0.0	0.0
AR-N-25	PFO	TX	Orange	North Route Wetland 210	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-26	PFO	TX	Orange	North Route Wetland 214	0.0	Access Road Construction	0.7	0.0	0.0
AR-N-27	PEM	TX	Orange	North Route Wetland 232	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-3	PEM	TX	Jefferson	North Route Wetland 44	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-3	PEM	TX	Jefferson	North Route Wetland 49	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-3	PEM	TX	Jefferson	North Route Wetland 50	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-5	PEM	TX	Jefferson	North Route Wetland 60	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 58	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 68	0.0	Access Road Construction	0.3	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 72	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 72	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 75	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 76	0.0	Access Road Construction	0.2	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
AR-N-6	PEM	TX	Jefferson	North Route Wetland 56	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 57	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 67	0.0	Access Road Construction	0.2	0.0	0.0
AR-N-6	PEM	TX	Jefferson	North Route Wetland 74	0.0	Access Road Construction	0.4	0.0	0.0
AR-N-7	PEM	TX	Jefferson	North Route Wetland 6	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-8	PUB	TX	Jefferson	North Route Wetland 93	0.0	Access Road Construction	0.1	0.0	0.0
AR-N-8	PUB	TX	Jefferson	North Route Wetland 94	0.0	Access Road Construction	0.0	0.0	0.0
AR-N-9	PSS	TX	Jefferson	North Route Wetland 99	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-1	ESS	TX	Jefferson	Wetland 2	0.0	Access Road Construction	0.1	0.0	0.0
						Subtotal	**18.0**	**0.0**	**0.0**
Southern Pipeline									
0.0	EEM	TX	Jefferson	South Route Wetland 22a	302.8	HDD	0.4	0.4	0.0
0.0	EEM	TX	Jefferson	South Route Wetland 22a	0.0	NA	0.2	0.0	0.0
0.0	ESS	LA	Jefferson	South Route Wetland 24	0.0	NA	0.0	0.0	0.0
0.0	ESS	TX	Jefferson	South Route Wetland 24	197.5	Trench	0.2	0.2	0.0
0.0	ESS	LA	Jefferson	South Route Wetland 24	0.0	NA	0.3	0.0	0.0
0.0	ESS	TX	Jefferson	South Route Wetland 24	56.1	Bore	0.1	0.1	0.0
0.0	EEM	TX	Jefferson	South Route Wetland 5a	174.3	Trench	0.2	0.2	0.0
0.0	EEM	LA	Jefferson	South Route Wetland 5a	0.0	NA	0.1	0.0	0.0
0.1	EEM	LA	Jefferson	South Route Wetland 5a	0.0	NA	0.1	0.0	0.0
0.1	EEM	TX	Jefferson	South Route Wetland 5	0.0	NA	0.0	0.0	0.0
0.1	EEM	TX	Jefferson	South Route Wetland 22a	0.0	NA	0.3	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
0.2	EEM	TX	Jefferson	Wetland 2a	7.7	HDD	0.0	0.0	0.0
0.4	EEM	TX	Jefferson	South Route Wetland 9	1,943.0	HDD	2.2	2.2	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14a	0.0	NA	0.0	0.0	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14a	39.1	HDD	0.0	0.0	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14a	0.0	NA	0.1	0.0	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14	0.0	NA	0.0	0.0	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14	33.1	HDD	0.0	0.0	0.0
2.2	EEM	TX	Jefferson	South Route Wetland 14	0.0	NA	0.0	0.0	0.0
2.2	PEM	TX	Jefferson	South Route Wetland 15	20.6	HDD	0.0	0.0	0.0
2.3	ESS	TX	Jefferson	South Route Wetland 16	729.9	HDD	0.8	0.8	0.0
2.4	EEM	TX	Jefferson	South Route Wetland 17	213.7	HDD	0.2	0.2	0.0
2.5	PEM	TX	Jefferson	South Route Wetland 18	212.1	HDD	0.2	0.2	0.0
2.5	EEM	TX	Jefferson	South Route Wetland 19	206.5	HDD	0.2	0.2	0.0
2.7	EEM	TX	Jefferson	South Route Wetland 19	0.0	NA	0.4	0.0	0.0
2.7	EEM	TX	Jefferson	South Route Wetland 19	0.0	NA	2.8	0.0	0.0
2.7	EEM	TX	Jefferson	South Route Wetland 19	1,715.6	Trench	2.0	2.0	0.0
3.0	EEM	TX	Jefferson	South Route Wetland 19	1,272.6	HDD	1.5	1.5	0.0
3.1	EEM	TX	Jefferson	South Route Wetland 19a	208.1	HDD	0.2	0.2	0.0
3.4	ESS	TX	Jefferson	South Route Wetland 4	2,604.3	HDD	3.0	3.0	0.0
3.6	ESS	TX	Jefferson	South Route Wetland 4	0.0	NA	0.1	0.0	0.0
3.8	EEM	TX	Jefferson	South Route Wetland 22a	0.0	NA	2.4	0.0	0.0
4.0	EEM	TX	Jefferson	South Route Wetland 22a	0.0	NA	3.8	0.0	0.0
4.0	EEM	TX	Jefferson	South Route Wetland 22a	2,574.9	Push	2.9	2.9	0.0
4.4	PEM	TX	Jefferson	South Route Wetland 22	1,058.6	Push	1.2	1.2	0.0
4.4	PEM	TX	Jefferson	South Route Wetland 22	0.0	NA	1.4	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
4.4	PEM	TX	Jefferson	South Route Wetland 22	0.0	NA	0.2	0.0	0.0
4.9	EEM	TX	Jefferson	South Route Wetland 22b	0.0	NA	6.6	0.0	0.0
4.9	EEM	TX	Jefferson	South Route Wetland 22b	4,864.6	Push	5.6	5.6	0.0
4.9	EEM	TX	Jefferson	South Route Wetland 22b	0.0	NA	1.1	0.0	0.0
5.6	PEM	TX	Jefferson	South Route Wetland 23	0.0	NA	3.5	0.0	0.0
5.6	PEM	TX	Jefferson	South Route Wetland 23	2,403.2	Push	2.8	2.8	0.0
5.6	PEM	TX	Jefferson	South Route Wetland 23	0.0	NA	0.6	0.0	0.0
7.5	EEM	TX	Jefferson	South Route Wetland 5a	512.0	HDD	0.5	0.5	0.0
7.5	EEM	LA	Cameron	South Route Wetland 5a	0.0	NA	0.6	0.0	0.0
7.5	EEM	TX	Jefferson	South Route Wetland 5a	43.9	Bore	0.1	0.1	0.0
7.5	ESS	LA	Cameron	South Route Wetland 24	0.0	NA	0.0	0.0	0.0
7.6	EEM	LA	Cameron	South Route Wetland 5a	0.0	NA	0.8	0.0	0.0
				Subtotal	**21,394.4**		**49.6**	**24.4**	**0.0**
Southern Segment – Access Roads									
AR-NGPL-1	EEM	TX	Jefferson	South Route Wetland 22a	0.0	Access Road Construction	0.1	0.0	0.0
AR-NGPL-1	ESS	TX	Jefferson	South Route Wetland 4	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-1	EEM	TX	Jefferson	South Route Wetland 9	0.0	Access Road Construction	0.2	0.0	0.0
AR-S-10	ESS	LA	Cameron	South Route Wetland 24	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-10	ESS	LA	Cameron	South Route Wetland 24	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-10	EEM	LA	Cameron	South Route Wetland 5a	0.0	Access Road Construction	0.3	0.3	0.0
AR-S-10	PSS	LA	Cameron	South Route Wetland 26	0.0	Access Road Construction	0.3	0.3	0.0
AR-S-2	EEM	TX	Jefferson	South Route Wetland 14	0.0	Access Road Construction	0.1	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
AR-S-2	EEM	TX	Jefferson	South Route Wetland 14a	0.0	Access Road Construction	0.3	0.0	0.0
AR-S-2	ESS	TX	Jefferson	South Route Wetland 16	0.0	Access Road Construction	0.2	0.0	0.0
AR-S-2	PEM	TX	Jefferson	South Route Wetland 15	0.0	Access Road Construction	0.1	0.0	0.0
AR-S-3	EEM	TX	Jefferson	South Route Wetland 19	0.0	Access Road Construction	0.5	0.0	0.0
AR-S-3	EEM	TX	Jefferson	South Route Wetland 21a	0.0	Access Road Construction	0.1	0.0	0.0
AR-S-3	PEM	TX	Jefferson	South Route Wetland 21	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-4	EEM	TX	Jefferson	South Route Wetland 22a	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-4	ESS	TX	Jefferson	South Route Wetland 4	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-4	ESS	TX	Jefferson	South Route Wetland 4	0.0	Access Road Construction	0.2	0.0	0.0
AR-S-5	EEM	TX	Jefferson	South Route Wetland 22a	0.0	Access Road Construction	0.1	0.1	0.0
AR-S-6	EEM	TX	Jefferson	South Route Wetland 22b	0.0	Access Road Construction	1.0	0.0	0.0
AR-S-8	ESS	LA	Cameron	South Route Wetland 24	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-8	EEM	LA	Cameron	South Route Wetland 5	0.0	Access Road Construction	0.0	0.0	0.0
AR-S-8	EEM	LA	Cameron	South Route Wetland 5a	0.0	Access Road Construction	0.3	0.0	0.0
AR-S-9	ESS	LA	Cameron	South Route Wetland 24	0.0	Access Road Construction	0.1	0.0	0.0
AR-S-9	EEM	LA	Cameron	South Route Wetland 5a	0.0	Access Road Construction	0.5	0.0	0.0
						Subtotal	**4.6**	**0.7**	**0.0**
FGT Lateral									
0.0	PFO	TX	Orange	FGT Route Wetland 1	13.7	Trench	0.0	0.0	0.0

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
0.0	PFO	TX	Orange	FGT Route Wetland 1	0.0	NA	0.0	0.0	0.0
0.6	PFO	TX	Orange	FGT Route Wetland 7	0.0	NA	0.0	0.0	0.0
0.6	PEM	TX	Orange	FGT Route Wetland 6	0.0	NA	0.1	0.0	0.0
0.6	PEM	TX	Orange	FGT Route Wetland 6	135.6	Trench	0.1	0.1	0.0
0.8	PFO	TX	Orange	FGT Route Wetland 9	0.0	NA	1.1	0.0	0.0
0.8	PFO	TX	Orange	FGT Route Wetland 9	14.6	Trench	0.5	0.5	0.5
1.1	PEM	TX	Orange	FGT Route Wetland 12	30.8	HDD	0.0	0.0	0.0
1.1	PFO	TX	Orange	FGT Route Wetland 13	51.3	HDD	0.0	0.0	0.0
1.3	PFO	TX	Orange	FGT Route Wetland 15	0.0	NA	0.4	0.0	0.0
1.3	PFO	TX	Orange	FGT Route Wetland 15	341.1	Trench	0.4	0.4	0.4
1.3	PFO	TX	Orange	FGT Route Wetland 15	0.0	NA	0.1	0.0	0.0
1.3	PUB	TX	Orange	FGT Route Wetland 16	0.0	NA	0.1	0.0	0.0
1.3	PUB	TX	Orange	FGT Route Wetland 16	47.9	Trench	0.0	0.0	0.0
				Subtotal	**634.9**		**2.9**	**1.1**	**0.9**
FGT Lateral Access Roads									
AR-FGT-1	PFO	TX	Orange	FGT Route Wetland 10	0.0	Access Road Construction	0.2	0.0	0.0
AR-FGT-1	PFO	TX	Orange	FGT Route Wetland 11	0.0	Access Road Construction	0.1	0.0	0.0
AR-FGT-2	PFO	TX	Orange	FGT Route Wetland 14	0.0	Access Road Construction	0.3	0.0	0.0
						Subtotal	**0.5**	**0.0**	**0.0**
GTS Lateral									
0.3	PFO	TX	Jefferson	GTS Lateral Wetland 2	0.0	NA	0.0	0.0	0.0
0.4	PFO	TX	Jefferson	GTS Lateral Wetland 6	0.0	NA	0.0	0.0	0.0
0.5	PFO	TX	Orange	GTS Lateral Wetland 6	530.7	Trench	0.6	0.6	0.6
0.5	PFO	TX	Jefferson	GTS Lateral Wetland 6	0.0	NA	0.7	0.0	0.0
0.5	PFO	TX	Orange	GTS Lateral Wetland 6	80.4	HDD	0.1	0.1	0.1

APPENDIX K.1 (cont'd)

Wetlands Affected by the Texas Connector Project

Milepost or Access Road	Wetland Type [a]	State	County or Parish	Wetland Identification Number	Length Crossed (feet)	Proposed Crossing Method	Construction Impacts	Acres of Wetlands within Permanent ROW	PFO Conversion (Acres) [b]
0.5	PEM	TX	Jefferson	GTS Lateral Wetland 9	0.0	NA	0.0	0.0	0.0
0.5	PEM	TX	Jefferson	GTS Lateral Wetland 9	0.0	NA	0.1	0.0	0.0
0.5	PEM	TX	Orange	GTS Lateral Wetland 9	39.5	HDD	0.1	0.1	0.0
0.6	PSS	TX	Orange	GTS Lateral Wetland 11	98.8	HDD	0.1	0.1	0.0
0.9	PFO	TX	Orange	GTS Lateral Wetland 12	78.8	HDD	0.1	0.1	0.1
20.1	PFO	TX	Orange	GTS Lateral Wetland 2	777.7	Trench	0.9	0.9	0.9
20.1	PFO	TX	Jefferson	GTS Lateral Wetland 2	0.0	NA	0.8	0.0	0.0
				Subtotal	**1,605.7**		**3.3**	**1.8**	**1.6**
KMPL Lateral									
0.0	ESS	TX	Jefferson	South Route Wetland 24	165.0	Trench	0.1	0.1	0.0
0.0	ESS	LA	Cameron	South Route Wetland 24	15.6	Trench	0.0	0.0	0.0
0.1	EEM	LA	Cameron	South Route Wetland 5a	405.5	Trench	0.5	0.5	0.0
				Subtotal	**586.1**		**0.6**	**0.6**	**0.0**
NGPL Lateral									
0.0	EEM	TX	Jefferson	South Route Wetland 22a	53.8	Trench	0.1	0.1	0.0
0.0	EES	TX	Jefferson	South Route Wetland 4	61.3	Bore	0.1	0.1	0.0
0.0	EES	TX	Jefferson	South Route Wetland 4	16.3	Trench	0.0	0.0	0.0
3.6	EEM	TX	Jefferson	South Route Wetland 22a	59.1	Bore	0.1	0.1	0.0
3.7	EEM	TX	Jefferson	South Route Wetland 22a	1179.7	Trench	1.4	1.4	0.0
				Subtotal	**1370.2**		**1.6**	**1.6**	**0.0**

[a] Key:
PEM – Palustrine Emergent
PSS – Palustrine Scrub Shrub
PFO – Palustrine Forested
PUB – Palustrine Unconsolidated Bottom
EEM – Estuarine Emergent
ESS – Estuarine Scrub-Shrub

[b] PFO Conversion (Acres) - Acres of forested wetland that will be convert to PEM or PSS within the permanent easement.

WETLANDS AFFECTED BY THE LOUISIANA CONNECTOR PROJECT

APPENDIX K.2

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
0.0	JEF-WL-001	ATWS	PEM	0.0	0.1	0.0	-
18.1	CAM-WL-001	ATWS	EEM	0.0	0.2	0.0	-
18.1	CAM-WL-001	ATWS	EEM	0.0	0.2	0.0	-
18.1	CAM-WL-001	ATWS	EEM	0.0	0.0	0.0	-
18.1	CAM-WL-001	Perm. Easement	EEM	300.0	0.3	0.3	-
18.1	CAM-WL-001	Temp. Easement	EEM	0.0	0.1	0.0	-
18.1	CAM-WL-001	Temp. Easement	EEM	0.0	0.1	0.0	-
18.1	CAM-WL-001	Access Road	EEM	0.0	0.7	0.0	-
18.1	CAM-WL-001	ATWS	EEM	0.0	0.9	0.0	-
18.2	CAM-WL-001	Temp. Easement	EEM	0.0	0.3	0.0	-
19.0	CAM-WL-004	Temp. Easement	EEM	0.0	0.1	0.0	-
19.1	CAM-WL-004	Access Road	EEM	0.0	0.7	0.0	-
19.1	CAM-WL-004	ATWS	EEM	0.0	0.4	0.0	-
19.2	CAM-WL-004	ATWS	EEM	0.0	0.7	0.0	-
19.2	CAM-WL-004	Perm. Easement	EEM	975.9	1.1	1.1	-
19.2	CAM-WL-004	Temp. Easement	EEM	0.0	1.4	0.0	-
19.4	CAM-WL-004	Temp. Easement	EEM	0.0	0.2	0.0	-
19.4	CAM-WL-005	Perm. Easement	EEM	5,166.3	5.9	5.9	-
19.6	CAM-WL-005	ATWS	EEM	0.0	0.1	0.0	-
19.8	CAM-WL-005	Temp. Easement	EEM	0.0	7.6	0.0	-
20.3	CAM-WL-005	Access Road	EEM	0.0	0.0	0.0	-
20.3	CAM-WL-006	Access Road	EEM	0.0	1.5	0.0	-
20.3	CAM-WL-006	ATWS	EEM	0.0	0.3	0.0	-
20.3	CAM-WL-006	Temp. Easement	EEM	0.0	0.0	0.0	-
20.4	CAM-WL-005	Temp. Easement	EEM	0.0	0.0	0.0	-
20.4	CAM-WL-005	Temp. Easement	EEM	0.0	1.1	0.0	-
20.4	CAM-WL-006	Temp. Easement	EEM	0.0	0.0	0.0	-
20.4	CAM-WL-006	ATWS	EEM	0.0	0.2	0.0	-
20.4	CAM-WL-007	Perm. Easement	EEM	1,391.2	1.6	1.6	-
20.4	CAM-WL-007	Temp. Easement	EEM	0.0	2.0	0.0	-
20.4	CAM-WL-006	Temp. Easement	EEM	0.0	0.0	0.0	-
20.4	CAM-WL-006	ATWS	EEM	0.0	0.2	0.0	-
20.5	CAM-WL-006	ATWS	EEM	0.0	0.2	0.0	-
20.6	CAM-WL-007	Temp. Easement	EEM	0.0	0.3	0.0	-
20.7	CAM-WL-008	Perm. Easement	EEM	1,145.2	1.3	1.3	-
20.7	CAM-WL-008	Temp. Easement	EEM	0.0	1.8	0.0	-
20.8	CAM-WL-008	ATWS	EEM	0.0	0.1	0.0	-
20.8	CAM-WL-008	Temp. Easement	EEM	0.0	0.3	0.0	-
20.9	CAM-WL-008	Perm. Easement	EEM	28.5	0.0	0.0	-
21.0	CAM-WL-009	Perm. Easement	EEM	1,210.3	1.4	1.4	-
21.1	CAM-WL-009	Temp. Easement	EEM	0.0	1.8	0.0	-
21.1	CAM-WL-009	Temp. Easement	EEM	0.0	0.3	0.0	-
21.2	CAM-WL-010	Perm. Easement	EEM	561.1	0.7	0.7	-
21.2	CAM-WL-010	Temp. Easement	EEM	0.0	0.9	0.0	-
21.3	CAM-WL-010	Temp. Easement	EEM	0.0	0.1	0.0	-
21.3	CAM-WL-012	Perm. Easement	EEM	1,971.1	2.3	2.3	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
21.3	CAM-WL-012	Temp. Easement	EEM	0.0	0.5	0.0	-
21.4	CAM-WL-012	Temp. Easement	EEM	0.0	2.9	0.0	-
21.5	WR-CAM-02	ATWS	EEM	0.0	0.2	0.0	-
21.6	WR-CAM-02	ATWS	EEM	0.0	0.2	0.0	-
21.7	CAM-WL-013	Perm. Easement	EEM	1,084.3	1.2	1.2	-
21.7	CAM-WL-013	Temp. Easement	EEM	0.0	1.5	0.0	-
21.9	CAM-WL-013	Temp. Easement	EEM	0.0	0.3	0.0	-
21.9	CAM-WL-014	Perm. Easement	EEM	1,290.8	2.7	2.7	-
21.9	CAM-WL-014	Temp. Easement	EEM	0.0	3.5	0.0	-
21.9	CAM-WL-014	ATWS	EEM	0.0	0.1	0.0	-
22.1	CAM-WL-014	Temp. Easement	EEM	0.0	0.2	0.0	-
22.2	CAM-WL-014	ATWS	EEM	0.0	0.1	0.0	-
22.3	CAM-WL-014	ATWS	EEM	0.0	0.1	0.0	-
22.3	CAM-WL-014	ATWS	EEM	0.0	0.1	0.0	-
22.3	CAM-WL-014	ATWS	EEM	0.0	0.1	0.0	-
22.3	CAM-WL-014	Temp. Easement	EEM	0.0	0.3	0.0	-
22.4	CAM-WL-015	Temp. Easement	EEM	0.0	0.0	0.0	-
22.4	CAM-WL-015	Perm. Easement	EEM	5.2	0.0	0.0	-
22.4	CAM-WL-016	Perm. Easement	EEM	1,104.4	1.3	1.3	-
22.6	CAM-WL-016	ATWS	EEM	0.0	0.1	0.0	-
22.6	CAM-WL-016	Temp. Easement	EEM	0.0	1.9	0.0	-
22.6	CAM-WL-016	Temp. Easement	EEM	0.0	0.3	0.0	-
22.7	CAM-WL-017	Perm. Easement	EEM	544.3	0.6	0.6	-
22.7	CAM-WL-017	Temp. Easement	EEM	0.0	0.1	0.0	-
22.8	CAM-WL-017	Temp. Easement	EEM	0.0	0.8	0.0	-
23.0	CAM-WL-018	Perm. Easement	EEM	20.6	0.0	0.0	-
23.0	CAM-WL-018	Temp. Easement	EEM	0.0	0.2	0.0	-
23.2	CAM-WL-019	Perm. Easement	EEM	889.5	1.0	1.0	-
23.4	CAM-WL-019	Temp. Easement	EEM	0.0	1.3	0.0	-
23.4	CAM-WL-019	Temp. Easement	EEM	0.0	0.2	0.0	-
23.5	CAM-WL-020	Perm. Easement	EEM	660.9	0.8	0.8	-
23.5	CAM-WL-020	Temp. Easement	EEM	0.0	1.1	0.0	-
23.5	CAM-WL-020	Temp. Easement	EEM	0.0	0.1	0.0	-
23.5	CAM-WL-020	ATWS	EEM	0.0	0.1	0.0	-
23.6	CAM-WL-020	Temp. Easement	EEM	0.0	0.0	0.0	-
23.8	CAM-WL-021	Perm. Easement	EEM	166.7	0.2	0.2	-
23.8	CAM-WL-021	Temp. Easement	EEM	0.0	0.2	0.0	-
23.8	CAM-WL-021	Temp. Easement	EEM	0.0	0.0	0.0	-
24.0	CAM-WL-022	Perm. Easement	EEM	288.9	0.3	0.3	-
24.0	CAM-WL-022	Temp. Easement	EEM	0.0	0.1	0.0	-
24.1	CAM-WL-022	Temp. Easement	EEM	0.0	0.4	0.0	-
24.1	CAM-WL-022	ATWS	EEM	0.0	0.1	0.0	-
24.1	CAM-WL-022	Perm. Easement	EEM	1,301.9	1.5	1.5	-
24.1	CAM-WL-022	Temp. Easement	EEM	0.0	1.9	0.0	-
24.2	CAM-WL-022	Temp. Easement	EEM	0.0	0.3	0.0	-
24.7	CAM-WL-024	Temp. Easement	EEM	0.0	0.2	0.0	-
24.8	CAM-WL-025	Perm. Easement	EEM	274.4	0.3	0.3	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
24.8	CAM-WL-025	Temp. Easement	EEM	0.0	0.4	0.0	-
24.8	CAM-WL-025	Temp. Easement	EEM	0.0	0.1	0.0	-
24.8	CAM-WL-026	Perm. Easement	PSS	101.5	0.4	0.4	-
24.8	CAM-WL-026	Temp. Easement	PSS	0.0	0.7	0.0	-
24.9	CAM-WL-026	ATWS	PSS	0.0	0.1	0.0	-
24.9	CAM-WL-026	Temp. Easement	PSS	0.0	0.1	0.0	-
24.9	CAM-WL-026	Perm. Easement	PSS	101.5	0.1	0.1	-
24.9	CAM-WL-026	Temp. Easement	PSS	0.0	0.1	0.0	-
24.9	CAM-WL-026	Temp. Easement	PSS	0.0	0.0	0.0	-
24.9	CAM-WL-027	Perm. Easement	EEM	101.5	1.8	1.8	-
24.9	CAM-WL-027	Temp. Easement	EEM	0.0	2.3	0.0	-
24.9	CAM-WL-027	Temp. Easement	EEM	0.0	0.4	0.0	-
25.2	CAM-WL-028	Perm. Easement	EEM	254.1	0.3	0.3	-
25.2	CAM-WL-028	Temp. Easement	EEM	0.0	0.4	0.0	-
25.2	CAM-WL-028	Temp. Easement	EEM	0.0	0.1	0.0	-
25.5	CAM-WL-029	Perm. Easement	PSS	807.1	0.9	0.9	-
25.6	CAM-WL-029	Temp. Easement	PSS	0.0	0.2	0.0	-
25.6	CAM-WL-029	Temp. Easement	PSS	0.0	1.2	0.0	-
25.7	CAM-WL-040	Access Road	PEM	0.0	0.2	0.0	-
25.7	CAM-WL-040	Access Road	PEM	0.0	0.5	0.0	-
25.8	CAM-WL-030	Temp. Easement	EEM	0.0	0.3	0.0	-
25.8	CAM-WL-030	Perm. Easement	EEM	1,062.9	1.2	1.2	-
25.8	CAM-WL-040	Access Road	PEM	0.0	1.5	0.0	-
25.9	CAM-WL-030	Temp. Easement	EEM	0.0	1.5	0.0	-
26.1	CAL-WL-230	Access Road	PEM	0.0	0.9	0.0	-
26.1	CAM-WL-030	Temp. Easement	EEM	0.0	0.1	0.0	-
26.1	CAM-WL-031	Perm. Easement	EEM	31.9	0.0	0.0	-
26.1	CAM-WL-030	Perm. Easement	EEM	31.9	0.0	0.0	-
26.1	CAM-WL-031	Temp. Easement	EEM	0.0	0.1	0.0	-
26.1	CAM-WL-031	ATWS	EEM	0.0	0.1	0.0	-
26.1	CAM-WL-031	Temp. Easement	EEM	0.0	0.0	0.0	-
26.1	CAM-WL-032	Perm. Easement	EEM	65.6	0.1	0.1	-
26.1	CAM-WL-032	Temp. Easement	EEM	0.0	0.1	0.0	-
26.1	CAM-WL-032	ATWS	EEM	0.0	0.0	0.0	-
26.1	CAM-WL-033	Perm. Easement	PSS	553.1	0.4	0.4	-
26.1	CAM-WL-032	Temp. Easement	EEM	0.0	0.0	0.0	-
26.1	CAM-WL-033	ATWS	PSS	0.0	0.3	0.0	-
26.2	CAM-WL-033	Temp. Easement	PSS	0.0	0.1	0.0	-
26.2	CAM-WL-033	Temp. Easement	PSS	0.0	0.6	0.0	-
26.2	CAM-WL-034	Perm. Easement	EEM	1,181.2	0.6	0.6	-
26.2	CAM-WL-034	Temp. Easement	EEM	0.0	0.1	0.0	-
26.2	CAM-WL-034	ATWS	EEM	0.0	0.1	0.0	-
26.3	CAM-WL-034	Temp. Easement	EEM	0.0	0.8	0.0	-
26.3	CAM-WL-035	Temp. Easement	EEM	0.0	1.9	0.0	-
26.3	CAM-WL-035	Perm. Easement	EEM	1,181.2	1.4	1.4	-
26.3	CAM-WL-035	Temp. Easement	EEM	0.0	0.3	0.0	-
26.5	CAM-WL-036	Temp. Easement	EEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
26.5	CAM-WL-036	Perm. Easement	EEM	1,181.2	0.1	0.1	-
26.5	CAM-WL-036	Access Road	EEM	0.0	0.0	0.0	-
26.5	CAM-WL-036	Access Road	EEM	0.0	0.3	0.3	-
26.5	CAM-WL-035	ATWS	EEM	0.0	0.7	0.0	-
26.5	CAM-WL-036	Temp. Easement	EEM	0.0	0.0	0.0	-
26.5	CAM-WL-036	Temp. Easement	EEM	0.0	0.0	0.0	-
26.6	CAM-WL-036	Access Road	EEM	0.0	0.7	0.7	-
26.7	CAM-WL-036	ATWS	EEM	0.0	0.1	0.0	-
26.8	CAL-WL-231	Access Road	EEM	0.0	0.2	0.2	-
27.2	CAL-WL-001	Perm. Easement	EEM	1,508.0	1.7	1.7	-
27.2	CAL-WL-001	ATWS	EEM	0.0	0.5	0.0	-
27.2	CAL-WL-001	Temp. Easement	EEM	0.0	0.2	0.0	-
27.2	CAL-WL-001	Temp. Easement	EEM	0.0	2.1	0.0	-
27.2	CAL-WL-001	ATWS	EEM	0.0	0.5	0.0	-
27.4	CAL-WL-002	Perm. Easement	EEM	0.0	0.0	0.0	-
27.4	CAL-WL-002	Temp. Easement	EEM	0.0	0.0	0.0	-
27.4	CAL-WL-001	Temp. Easement	EEM	0.0	0.1	0.0	-
27.5	CAL-WL-001	ATWS	EEM	0.0	0.4	0.0	-
27.5	CAL-WL-001	Access Road	EEM	0.0	0.3	0.0	-
27.5	CAL-WL-001	ATWS	EEM	0.0	0.5	0.0	-
27.5	CAL-WL-001	ATWS	EEM	0.0	0.0	0.0	-
27.5	CAL-WL-001	Temp. Easement	EEM	0.0	0.1	0.0	-
27.5	CAL-WL-232	Access Road	PEM	0.0	0.4	0.4	-
28.3	CAL-WL-006	ATWS	EEM	0.0	0.1	0.0	-
28.3	CAL-WL-006	Access Road	PSS	0.0	0.1	0.0	-
28.3	CAL-WL-006	Access Road	EEM	0.0	0.0	0.0	-
28.3	CAL-WL-006	ATWS	PSS	0.0	0.1	0.0	-
28.3	CAL-WL-006	ATWS	EEM	0.0	0.0	0.0	-
28.3	CAL-WL-006	ATWS	PSS	0.0	0.1	0.0	-
28.3	CAL-WL-006	ATWS	EEM	0.0	0.2	0.0	-
28.3	CAL-WL-006	Perm. Easement	EEM	1,179.6	1.3	1.3	-
28.3	CAL-WL-006	Temp. Easement	EEM	0.0	0.0	0.0	-
28.4	CAL-WL-006	ATWS	EEM	0.0	0.7	0.0	-
28.4	CAL-WL-006	Temp. Easement	EEM	0.0	1.6	0.0	-
28.4	CAL-WL-006	Access Road	PSS	0.0	0.2	0.0	-
28.4	CAL-WL-006	Access Road	EEM	0.0	0.2	0.0	-
28.4	CAL-WL-006	Access Road	EEM	0.0	0.1	0.0	-
28.4	CAL-WL-006	ATWS	EEM	0.0	0.1	0.0	-
28.5	CAL-WL-007	ATWS	EEM	0.0	0.4	0.0	-
28.6	CAL-WL-006	Temp. Easement	EEM	0.0	0.2	0.0	-
28.6	CAL-WL-008	Temp. Easement	EEM	0.0	0.0	0.0	-
28.6	CAL-WL-008	Temp. Easement	EEM	0.0	0.1	0.0	-
28.6	CAL-WL-234	ATWS	EEM	0.0	0.3	0.0	-
28.6	CAL-WL-009	Perm. Easement	EEM	100.1	0.1	0.1	-
28.6	CAL-WL-009	Temp. Easement	EEM	0.0	0.0	0.0	-
28.6	CAL-WL-009	Temp. Easement	EEM	0.0	0.1	0.0	-
28.7	CAL-WL-010	Perm. Easement	EEM	94.9	0.1	0.1	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
28.7	CAL-WL-235	ATWS	EEM	0.0	1.0	0.0	-
28.7	CAL-WL-010	Temp. Easement	EEM	0.0	0.0	0.0	-
28.7	CAL-WL-010	Temp. Easement	EEM	0.0	0.3	0.0	-
28.7	CAL-WL-010	Perm. Easement	EEM	199.6	0.0	0.0	-
28.7	CAL-WL-010	Temp. Easement	EEM	0.0	0.0	0.0	-
28.7	CAL-WL-011	Perm. Easement	EEM	131.3	0.2	0.2	-
28.7	CAL-WL-011	Temp. Easement	EEM	0.0	0.0	0.0	-
28.7	CAL-WL-011	ATWS	EEM	0.0	0.1	0.0	-
28.8	CAL-WL-012	Perm. Easement	EEM	131.3	0.2	0.2	-
28.8	CAL-WL-012	Temp. Easement	EEM	0.0	0.0	0.0	-
28.8	CAL-WL-011	Perm. Easement	EEM	4,757.4	4.9	4.9	-
28.8	CAL-WL-012	Temp. Easement	EEM	0.0	0.0	0.0	-
28.8	CAL-WL-011	Temp. Easement	EEM	0.0	6.8	0.0	-
28.8	CAL-WL-236	ATWS	EEM	0.0	3.1	0.0	-
29.4	CAL-WL-011	ATWS	EEM	0.0	0.1	0.0	-
29.6	CAL-WL-011	Temp. Easement	EEM	0.0	1.0	0.0	-
29.6	CAL-WL-013	Perm. Easement	EEM	4,757.4	5.5	5.5	-
29.6	CAL-WL-013	Temp. Easement	EEM	0.0	1.1	0.0	-
29.8	CAL-WL-013	Temp. Easement	EEM	0.0	7.2	0.0	-
30.0	CAL-WL-013	ATWS	EEM	0.0	0.1	0.0	-
30.5	CAL-WL-015	Perm. Easement	EEM	4,757.4	0.1	0.1	-
30.5	CAL-WL-015	Temp. Easement	EEM	0.0	0.0	0.0	-
30.5	CAL-WL-015	Temp. Easement	EEM	0.0	0.1	0.0	-
30.5	CAL-WL-015	Perm. Easement	EEM	329.1	0.4	0.4	-
30.5	CAL-WL-015	Temp. Easement	EEM	0.0	0.6	0.0	-
30.6	CAL-WL-015	Temp. Easement	EEM	0.0	0.1	0.0	-
30.6	CAL-WL-015	Temp. Easement	EEM	0.0	0.1	0.0	-
30.6	CAL-WL-015	ATWS	EEM	0.0	0.0	0.0	-
30.6	CAL-WL-015	Temp. Easement	EEM	0.0	0.4	0.0	-
30.6	CAL-WL-015	ATWS	EEM	0.0	0.1	0.0	-
30.6	CAL-WL-015	Perm. Easement	EEM	297.9	0.4	0.4	-
30.6	CAL-WL-015	ATWS	EEM	0.0	0.0	0.0	-
30.6	CAL-WL-015	ATWS	EEM	0.0	0.2	0.0	-
30.7	CAL-WL-015	Access Road	EEM	0.0	0.1	0.0	-
30.7	CAL-WL-015	Access Road	EEM	0.0	0.1	0.0	-
30.7	CAL-WL-16	Access Road	EEM	0.0	0.2	0.0	-
30.7	CAL-WL-016	Access Road	PFO	0.0	0.1	0.0	-
30.7	CAL-WL-16	ATWS	EEM	0.0	0.3	0.0	-
30.8	CAL-WL-016	ATWS	PFO	0.0	0.3	0.0	-
30.8	CAL-WL-017	Access Road	EEM	0.0	0.2	0.0	-
30.9	CAL-WL-017	ATWS	EEM	0.0	1.3	0.0	-
30.9	CAL-WL-017	Perm. Easement	EEM	3,740.2	4.2	4.2	-
30.9	CAL-WL-017	Temp. Easement	EEM	0.0	0.5	0.0	-
31.2	CAL-WL-017	Temp. Easement	EEM	0.0	5.6	0.0	-
31.3	CAL-WL-018	Perm. Easement	PEM	0.0	0.1	0.1	-
31.3	CAL-WL-018	Temp. Easement	PEM	0.0	0.1	0.0	-
31.5	CAL-WL-017	ATWS	EEM	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
31.5	CAL-WL-017	Temp. Easement	EEM	0.0	0.3	0.0	-
31.6	CAL-WL-019	Temp. Easement	PEM	0.0	0.2	0.0	-
31.6	CAL-WL-019	Perm. Easement	PEM	561.4	0.6	0.6	-
31.6	CAL-WL-019	Temp. Easement	PEM	0.0	0.8	0.0	-
31.7	CAL-WL-020	Perm. Easement	PFO	561.4	0.6	0.6	0.6
31.7	CAL-WL-020	Temp. Easement	PFO	0.0	0.8	0.0	-
31.8	CAL-WL-020	Temp. Easement	PFO	0.0	0.1	0.0	-
31.8	CAL-WL-021	Perm. Easement	PFO	561.4	0.2	0.2	0.2
31.8	CAL-WL-021	Temp. Easement	PFO	0.0	0.0	0.0	-
31.8	CAL-WL-022	Perm. Easement	PEM	2,235.3	8.6	8.6	-
31.8	CAL-WL-021	Temp. Easement	PFO	0.0	0.3	0.0	-
31.8	CAL-WL-022	Temp. Easement	PEM	0.0	0.9	0.0	-
31.8	CAL-WL-022	Temp. Easement	PEM	0.0	11.1	0.0	-
32.3	CAL-WL-022	ATWS	PEM	0.0	0.1	0.0	-
32.6	CAL-WL-023	Perm. Easement	PEM	0.0	0.0	0.0	-
32.6	CAL-WL-023	Temp. Easement	PEM	0.0	0.0	0.0	-
32.6	CAL-WL-022	Temp. Easement	PEM	0.0	0.8	0.0	-
32.9	CAL-WL-022	Access Road	PEM	0.0	0.1	0.1	-
32.9	CAL-WL-024	Access Road	PEM	0.0	0.1	0.1	-
33.0	CAL-WL-022	ATWS	PEM	0.0	0.1	0.0	-
33.2	CAL-WL-022	Perm. Easement	PEM	2,235.3	2.6	2.6	-
33.2	CAL-WL-022	Temp. Easement	PEM	0.0	0.5	0.0	-
33.3	CAL-WL-022	Temp. Easement	PEM	0.0	3.4	0.0	-
33.7	CAL-WL-022	Perm. Easement	PEM	2,235.3	0.1	0.1	-
33.7	CAL-WL-022	Temp. Easement	PEM	0.0	0.1	0.0	-
33.7	CAL-WL-022	Temp. Easement	PEM	0.0	0.0	0.0	-
33.7	CAL-WL-027	Perm. Easement	PEM	444.6	1.2	1.2	-
33.7	CAL-WL-027	Access Road	PEM	0.0	0.2	0.2	-
33.7	CAL-WL-028	Access Road	PEM	0.0	0.1	0.1	-
33.7	CAL-WL-027	Temp. Easement	PEM	0.0	1.5	0.0	-
33.8	CAL-WL-027	ATWS	PEM	0.0	0.6	0.0	-
33.9	CAL-WL-027	Temp. Easement	PEM	0.0	0.2	0.0	-
33.9	CAL-WL-028	Perm. Easement	PFO	1,752.3	0.5	0.5	0.5
33.9	CAL-WL-028	Temp. Easement	PFO	0.0	0.1	0.0	-
33.9	CAL-WL-028	Temp. Easement	PFO	0.0	0.6	0.0	-
34.0	CAL-WL-029	Perm. Easement	PFO	1,752.3	2.0	2.0	2.0
34.0	CAL-WL-029	Temp. Easement	PFO	0.0	0.4	0.0	-
34.0	CAL-WL-032	Access Road	PEM	0.0	0.0	0.0	-
34.1	CAL-WL-029	Temp. Easement	PFO	0.0	2.7	0.0	-
34.1	CAL-WL-033	Access Road	PEM	0.0	0.0	0.0	-
34.4	CAL-WL-030	Temp. Easement	PEM	0.0	0.2	0.0	-
34.4	CAL-WL-030	Perm. Easement	PEM	869.4	1.0	1.0	-
34.5	CAL-WL-030	Temp. Easement	PEM	0.0	1.3	0.0	-
34.8	CAL-WL-240	ATWS	PFO	0.0	0.2	0.0	-
34.8	CAL-WL-240	ATWS	PFO	0.0	0.2	0.0	-
34.8	CAL-WL-031	Perm. Easement	PEM	1,030.0	1.2	1.2	-
34.9	CAL-WL-031	Temp. Easement	PEM	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
35.0	CAL-WL-034	Access Road	PEM	0.0	0.0	0.0	-
35.0	CAL-WL-031	Temp. Easement	PEM	0.0	2.2	0.0	-
35.0	CAL-WL-031	ATWS	PEM	0.0	0.2	0.0	-
35.0	CAL-WL-031	Perm. Easement	PEM	0.0	0.0	0.0	-
35.1	CAL-WL-035	Perm. Easement	PEM	30.5	0.0	0.0	-
35.1	CAL-WL-036	Perm. Easement	PEM	218.3	0.3	0.3	-
35.1	CAL-WL-036	Temp. Easement	PEM	0.0	0.1	0.0	-
35.1	CAL-WL-036	ATWS	PEM	0.0	0.1	0.0	-
35.1	CAL-WL-036	ATWS	PEM	0.0	0.0	0.0	-
35.1	CAL-WL-036	Temp. Easement	PEM	0.0	0.6	0.0	-
35.1	CAL-WL-036	ATWS	PEM	0.0	0.0	0.0	-
35.1	CAL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
35.1	CAL-WL-036	Perm. Easement	PEM	73.3	0.1	0.1	-
35.2	CAL-WL-036	Perm. Easement	PEM	360.4	1.0	1.0	-
35.2	CAL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
35.2	CAL-WL-038	Perm. Easement	PEM	0.0	0.0	0.0	-
35.2	CAL-WL-038	Temp. Easement	PEM	0.0	0.0	0.0	-
35.2	CAL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
35.2	CAL-WL-036	Temp. Easement	PEM	0.0	0.4	0.0	-
35.2	CAL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
35.3	CAL-WL-036	Temp. Easement	PEM	0.0	0.3	0.0	-
35.3	CAL-WL-036	Temp. Easement	PEM	0.0	0.4	0.0	-
35.4	CAL-WL-036	Temp. Easement	PEM	0.0	0.1	0.0	-
35.4	CAL-WL-036	Perm. Easement	PEM	982.9	1.1	1.1	-
35.4	CAL-WL-036	Temp. Easement	PEM	0.0	0.2	0.0	-
35.5	CAL-WL-036	Temp. Easement	PEM	0.0	0.8	0.0	-
35.6	CAL-WL-036	Temp. Easement	PEM	0.0	0.7	0.0	-
35.6	CAL-WL-036	Perm. Easement	PEM	149.4	0.2	0.2	-
35.6	CAL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
35.6	CAL-WL-040	Temp. Easement	PEM	0.0	0.1	0.0	-
35.6	CAL-WL-040	Perm. Easement	PEM	280.5	0.3	0.3	-
35.6	CAL-WL-040	Temp. Easement	PEM	0.0	0.3	0.0	-
35.7	CAL-WL-040	Perm. Easement	PEM	249.0	0.3	0.3	-
35.8	CAL-WL-040	Temp. Easement	PEM	0.0	0.2	0.0	-
35.8	CAL-WL-040	Temp. Easement	PEM	0.0	0.1	0.0	-
35.8	CAL-WL-237	Access Road	PEM	0.0	0.0	0.0	-
35.8	CAL-WL-041	ATWS	PEM	0.0	0.0	0.0	-
35.8	CAL-WL-042	ATWS	PEM	0.0	0.0	0.0	-
35.8	CAL-WL-041	Perm. Easement	PEM	10.9	0.0	0.0	-
35.8	CAL-WL-041	Temp. Easement	PEM	0.0	0.0	0.0	-
35.8	CAL-WL-042	Perm. Easement	PEM	18.1	0.0	0.0	-
35.8	CAL-WL-042	Temp. Easement	PEM	0.0	0.0	0.0	-
35.8	CAL-WL-042	Temp. Easement	PEM	0.0	0.0	0.0	-
35.9	CAL-WL-043	Perm. Easement	PEM	47.2	0.1	0.1	-
35.9	CAL-WL-043	Temp. Easement	PEM	0.0	0.0	0.0	-
35.9	CAL-WL-043	Temp. Easement	PEM	0.0	0.3	0.0	-
35.9	CAL-WL-043	Perm. Easement	PEM	1,603.2	0.1	0.1	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
35.9	CAL-WL-043	Temp. Easement	PEM	0.0	0.0	0.0	-
35.9	CAL-WL-044	Perm. Easement	PSS	527.2	1.8	1.8	-
36.2	CAL-WL-044	Temp. Easement	PSS	0.0	0.4	0.0	-
36.2	CAL-WL-044	Temp. Easement	PSS	0.0	2.5	0.0	-
36.2	CAL-WL-045	Temp. Easement	PEM	0.0	0.1	0.0	-
36.2	CAL-WL-045	Perm. Easement	PEM	293.5	0.6	0.6	-
36.3	CAL-WL-045	Temp. Easement	PEM	0.0	0.7	0.0	-
36.3	CAL-WL-046	Perm. Easement	PEM	293.5	0.3	0.3	-
36.3	CAL-WL-046	Temp. Easement	PEM	0.0	0.4	0.0	-
36.3	CAL-WL-046	ATWS	PEM	0.0	0.6	0.0	-
36.3	CAL-WL-046	Temp. Easement	PEM	0.0	0.1	0.0	-
36.4	CAL-WL-046	ATWS	PEM	0.0	0.0	0.0	-
36.4	CAL-WL-046	Perm. Easement	PEM	293.5	0.1	0.1	-
36.4	CAL-WL-046	Temp. Easement	PEM	0.0	0.0	0.0	-
36.4	CAL-WL-046	Temp. Easement	PEM	0.0	0.1	0.0	-
36.4	CAL-WL-047	Perm. Easement	PEM	473.6	0.5	0.5	-
36.4	CAL-WL-047	Temp. Easement	PEM	0.0	0.8	0.0	-
36.4	CAL-WL-047	ATWS	PEM	0.0	0.7	0.0	-
36.5	CAL-WL-047	ATWS	PEM	0.0	0.2	0.0	-
36.5	CAL-WL-239	Access Road	PEM	0.0	0.0	0.0	-
36.5	CAL-WL-239	Access Road	PEM	0.0	0.0	0.0	-
36.5	CAL-WL-047	Temp. Easement	PEM	0.0	0.1	0.0	-
36.5	CAL-WL-239	Access Road	PEM	0.0	0.0	0.0	-
36.5	CAL-WL-048	Perm. Easement	PEM	116.5	1.3	1.3	-
36.5	CAL-WL-048	Temp. Easement	PEM	0.0	0.3	0.0	-
36.5	CAL-WL-239	Access Road	PEM	0.0	0.0	0.0	-
36.5	CAL-WL-048	ATWS	PEM	0.0	0.2	0.0	-
36.5	CAL-WL-238	Access Road	PEM	0.0	0.0	0.0	-
36.7	CAL-WL-048	ATWS	PEM	0.0	0.3	0.0	-
36.7	CAL-WL-048	ATWS	PEM	0.0	0.0	0.0	-
36.7	CAL-WL-048	ATWS	PFO	0.0	0.1	0.0	-
36.7	CAL-WL-048	Temp. Easement	PEM	0.0	1.6	0.0	-
36.7	CAL-WL-048	ATWS	PEM	0.0	0.1	0.0	-
36.7	CAL-WL-048	Perm. Easement	PFO	116.5	0.1	0.1	0.1
36.7	CAL-WL-048	ATWS	PFO	0.0	0.0	0.0	-
36.7	CAL-WL-048	Temp. Easement	PFO	0.0	0.2	0.0	-
36.7	CAL-WL-048	Temp. Easement	PFO	0.0	0.0	0.0	-
36.8	CAL-WL-049	Perm. Easement	PEM	3,623.0	4.2	4.2	-
36.8	CAL-WL-049	ATWS	PEM	0.0	0.5	0.0	-
36.9	CAL-WL-049	ATWS	PEM	0.0	0.3	0.0	-
36.9	CAL-WL-049	Temp. Easement	PEM	0.0	0.8	0.0	-
37.1	CAL-WL-049	Temp. Easement	PEM	0.0	5.2	0.0	-
37.4	CAL-WL-049	ATWS	PEM	0.0	0.1	0.0	-
37.5	CAL-WL-050	Temp. Easement	PEM	0.0	0.4	0.0	-
37.5	CAL-WL-050	ATWS	PEM	0.0	0.2	0.0	-
37.5	CAL-WL-050	Perm. Easement	PEM	117.4	0.1	0.1	-
37.5	CAL-WL-050	Temp. Easement	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
37.5	CAL-WL-051	Perm. Easement	PEM	790.7	0.9	0.9	-
37.5	CAL-WL-051	Temp. Easement	PEM	0.0	1.2	0.0	-
37.5	CAL-WL-051	ATWS	PEM	0.0	0.2	0.0	-
37.6	CAL-WL-051	ATWS	PEM	0.0	0.2	0.0	-
37.6	CAL-WL-051	Temp. Easement	PEM	0.0	0.2	0.0	-
37.6	CAL-WL-052	Perm. Easement	PEM	5,435.4	6.2	6.2	-
37.7	CAL-WL-052	ATWS	PEM	0.0	0.2	0.0	-
38.0	CAL-WL-052	Temp. Easement	PEM	0.0	0.7	0.0	-
38.0	CAL-WL-052	Temp. Easement	PEM	0.0	6.6	0.0	-
38.5	CAL-WL-052	ATWS	PEM	0.0	0.2	0.0	-
38.5	CAL-WL-052	Temp. Easement	PEM	0.0	0.2	0.0	-
38.5	CAL-WL-052	Temp. Easement	PEM	0.0	1.4	0.0	-
38.5	CAL-WL-052	ATWS	PEM	0.0	0.2	0.0	-
38.7	CAL-WL-052	ATWS	PEM	0.0	1.1	0.0	-
38.9	CAL-WL-057	Access Road	PEM	0.0	0.4	0.4	-
38.9	CAL-WL-057	Access Road	PEM	0.0	0.1	0.1	-
38.9	CAL-WL-057	Temp. Easement	PEM	0.0	0.1	0.0	-
39.1	CAL-WL-057	Temp. Easement	PEM	0.0	0.4	0.0	-
39.1	CAL-WL-057	Temp. Easement	PEM	0.0	0.0	0.0	-
39.1	CAL-WL-059	Perm. Easement	PSS	1,908.7	2.2	2.2	-
39.2	CAL-WL-057	ATWS	PEM	0.0	0.7	0.0	-
39.2	CAL-WL-059	ATWS	PSS	0.0	0.0	0.0	-
39.2	CAL-WL-059	Temp. Easement	PEM	0.0	0.0	0.0	-
39.3	CAL-WL-059	Temp. Easement	PEM	0.0	0.0	0.0	-
39.4	CAL-WL-059	Temp. Easement	PSS	0.0	2.8	0.0	-
39.5	CAL-WL-059	Temp. Easement	PSS	0.0	0.5	0.0	-
39.5	CAL-WL-059	ATWS	PEM	0.0	0.7	0.0	-
39.5	CAL-WL-059	Perm. Easement	PEM	1,908.7	1.2	1.2	-
39.6	CAL-WL-059	Temp. Easement	PEM	0.0	1.0	0.0	-
39.7	CAL-WL-059	Perm. Easement	PEM	1,65.6	0.5	0.5	-
39.7	CAL-WL-059	Temp. Easement	PEM	0.0	0.8	0.0	-
39.8	CAL-WL-059	Temp. Easement	PEM	0.0	0.8	0.0	-
39.8	CAL-WL-059	ATWS	PEM	0.0	0.7	0.0	-
39.8	CAL-WL-059	ATWS	PEM	0.0	0.0	0.0	-
40.2	CAL-WL-061	ATWS	PFO	0.0	0.3	0.0	-
40.2	CAL-WL-061	Temp. Easement	PFO	0.0	0.1	0.0	-
40.5	CAL-WL-065	Access Road	PEM	0.0	0.1	0.1	-
40.5	CAL-WL-065	Access Road	PEM	0.0	0.0	0.0	-
40.5	CAL-WL-065	ATWS	PEM	0.0	0.2	0.0	-
40.5	CAL-WL-065	Perm. Easement	PEM	556.0	0.6	0.6	-
40.5	CAL-WL-065	Temp. Easement	PEM	0.0	0.1	0.0	-
40.5	CAL-WL-065	Temp. Easement	PEM	0.0	0.1	0.0	-
40.5	CAL-WL-065	Access Road	PEM	0.0	0.2	0.2	-
40.5	CAL-WL-065	ATWS	PEM	0.0	0.7	0.0	-
40.6	CAL-WL-065	Temp. Easement	PEM	0.0	0.7	0.0	-
40.6	CAL-WL-065	ATWS	PEM	0.0	0.1	0.0	-
40.7	CAL-WL-066	ATWS	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
40.7	CAL-WL-066	Perm. Easement	PEM	17.6	0.0	0.0	-
40.7	CAL-WL-066	Perm. Easement	PEM	32.3	0.1	0.1	-
40.7	CAL-WL-066	Temp. Easement	PEM	0.0	0.0	0.0	-
40.7	CAL-WL-066	Temp. Easement	PEM	0.0	0.4	0.0	-
40.8	CAL-WL-066	ATWS	PEM	0.0	0.0	0.0	-
40.8	CAL-WL-066	Perm. Easement	PEM	35.8	0.1	0.1	-
40.8	CAL-WL-066	Temp. Easement	PEM	0.0	0.0	0.0	-
40.8	CAL-WL-066	Temp. Easement	PEM	0.0	0.2	0.0	-
40.8	CAL-WL-066	ATWS	PEM	0.0	0.0	0.0	-
40.8	CAL-WL-067	Temp. Easement	PEM	0.0	0.3	0.0	-
40.8	CAL-WL-067	Perm. Easement	PEM	376.4	0.4	0.4	-
40.9	CAL-WL-067	ATWS	PEM	0.0	0.3	0.0	-
40.9	CAL-WL-067	Temp. Easement	PEM	0.0	0.3	0.0	-
41.0	CAL-WL-068	Perm. Easement	PEM	366.7	0.4	0.4	-
41.1	CAL-WL-068	ATWS	PEM	0.0	0.2	0.0	-
41.1	CAL-WL-068	Temp. Easement	PEM	0.0	0.1	0.0	-
41.1	CAL-WL-068	Temp. Easement	PEM	0.0	0.4	0.0	-
41.3	CAL-WL-069	Temp. Easement	PFO	0.0	0.1	0.0	-
41.8	CAL-WL-072	Perm. Easement	PEM	409.6	0.5	0.5	-
41.8	CAL-WL-072	Perm. Easement	PFO	0.0	0.1	0.1	0.1
41.8	CAL-WL-072	Temp. Easement	PFO	0.0	0.3	0.0	0.0
41.8	CAL-WL-072	Temp. Easement	PEM	0.0	0.1	0.0	-
41.8	CAL-WL-072	Perm. Easement	PFO	409.6	0.3	0.3	0.3
41.9	CAL-WL-072	Temp. Easement	PEM	0.0	0.3	0.0	-
41.9	CAL-WL-072	Perm. Easement	PFO	497.0	0.4	0.4	0.4
42.0	CAL-WL-072	ATWS	PFO	0.0	0.7	0.0	-
42.0	CAL-WL-072	Perm. Easement	PEM	0.0	0.2	0.2	-
42.0	CAL-WL-072	Temp. Easement	PFO	0.0	1.6	0.0	-
42.5	CAL-WL-075	Perm. Easement	PEM	577.4	0.7	0.7	-
42.5	CAL-WL-075	Temp. Easement	PEM	0.0	0.1	0.0	-
42.5	CAL-WL-075	ATWS	PEM	0.0	0.3	0.0	-
42.6	CAL-WL-075	Temp. Easement	PEM	0.0	0.9	0.0	-
42.6	CAL-WL-075	ATWS	PEM	0.0	0.4	0.0	-
42.6	CAL-WL-075	ATWS	PEM	0.0	0.2	0.0	-
42.6	CAL-WL-076	Perm. Easement	PEM	1,288.2	1.5	1.5	-
42.6	CAL-WL-076	Temp. Easement	PEM	0.0	0.3	0.0	-
42.7	CAL-WL-076	ATWS	PEM	0.0	0.3	0.0	-
42.7	CAL-WL-076	Temp. Easement	PEM	0.0	1.8	0.0	-
42.9	CAL-WL-077	Perm. Easement	PSS	285.2	0.6	0.6	-
43.0	CAL-WL-077	ATWS	PSS	0.0	0.1	0.0	-
43.0	CAL-WL-077	Temp. Easement	PSS	0.0	0.1	0.0	-
43.0	CAL-WL-077	Temp. Easement	PSS	0.0	0.8	0.0	-
43.0	CAL-WL-077	Perm. Easement	PSS	285.2	0.3	0.3	-
43.0	CAL-WL-077	Temp. Easement	PSS	0.0	0.1	0.0	-
43.0	CAL-WL-077	Temp. Easement	PSS	0.0	0.4	0.0	-
43.1	CAL-WL-078	Perm. Easement	PSS	49.9	0.1	0.1	-
43.1	CAL-WL-078	Temp. Easement	PSS	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
43.1	CAL-WL-078	Temp. Easement	PSS	0.0	0.2	0.0	-
43.1	CAL-WL-078	ATWS	PSS	0.0	0.0	0.0	-
43.1	CAL-WL-078	ATWS	PSS	0.0	0.0	0.0	-
43.1	CAL-WL-078	ATWS	PSS	0.0	0.2	0.0	-
43.1	CAL-WL-078	Perm. Easement	PSS	57.2	0.0	0.0	-
43.1	CAL-WL-078	Temp. Easement	PSS	0.0	0.0	0.0	-
43.1	CAL-WL-079	ATWS	PSS	0.0	0.0	0.0	-
43.1	CAL-WL-079	Temp. Easement	PSS	0.0	0.1	0.0	-
43.2	CAL-WL-079	Perm. Easement	PSS	34.4	0.1	0.1	-
43.2	CAL-WL-079	Temp. Easement	PSS	0.0	0.0	0.0	-
43.2	CAL-WL-080	Perm. Easement	PFO	127.0	0.2	0.2	0.2
43.2	CAL-WL-080	Temp. Easement	PFO	0.0	0.0	0.0	-
43.2	CAL-WL-080	Access Road	PFO	0.0	0.0	0.0	-
43.2	CAL-WL-080	Access Road	PEM	0.0	0.1	0.1	-
43.2	CAL-WL-080	ATWS	PFO	0.0	0.5	0.0	-
43.2	CAL-WL-080	Temp. Easement	PFO	0.0	0.3	0.0	-
43.2	CAL-WL-080	Access Road	PEM	0.0	0.1	0.1	-
43.2	CAL-WL-080	ATWS	PEM	0.0	0.0	0.0	-
43.2	CAL-WL-080	Perm. Easement	PEM	127.0	0.5	0.5	-
43.2	CAL-WL-080	Temp. Easement	PEM	0.0	0.1	0.0	-
43.2	CAL-WL-080	Access Road	PEM	0.0	0.2	0.2	-
43.2	CAL-WL-080	Temp. Easement	PEM	0.0	0.6	0.0	-
43.3	CAL-WL-080	ATWS	PEM	0.0	1.2	0.0	-
43.3	CAL-WL-080	Temp. Easement	PEM	0.0	0.1	0.0	-
43.3	CAL-WL-081	Temp. Easement	PFO	0.0	0.0	0.0	-
43.3	CAL-WL-081	Perm. Easement	PFO	53.5	0.1	0.1	0.1
43.3	CAL-WL-081	Perm. Easement	PEM	53.5	0.3	0.3	-
43.4	CAL-WL-081	Temp. Easement	PEM	0.0	0.1	0.0	-
43.4	CAL-WL-081	Temp. Easement	PEM	0.0	0.3	0.0	-
43.4	CAL-WL-081	ATWS	PEM	0.0	0.0	0.0	-
43.4	CAL-WL-081	ATWS	PEM	0.0	0.4	0.0	-
43.4	CAL-WL-081	Perm. Easement	PEM	254.4	0.8	0.8	-
43.4	CAL-WL-081	Temp. Easement	PEM	0.0	0.2	0.0	-
43.4	CAL-WL-081	ATWS	PSS	0.0	0.2	0.0	-
43.4	CAL-WL-081	Perm. Easement	PSS	615.1	0.4	0.4	-
43.4	CAL-WL-081	Temp. Easement	PSS	0.0	1.1	0.0	-
43.5	CAL-WL-081	Temp. Easement	PEM	0.0	0.3	0.0	-
43.5	CAL-WL-081	ATWS	PSS	0.0	0.1	0.0	-
43.5	CAL-WL-081	ATWS	PEM	0.0	0.2	0.0	-
43.6	CAL-WL-081	Temp. Easement	PEM	0.0	0.2	0.0	-
43.6	CAL-WL-081	Perm. Easement	PEM	0.0	0.0	0.0	-
43.8	CAL-WL-082	Temp. Easement	PEM	0.0	0.0	0.0	-
43.8	CAL-WL-082	Temp. Easement	PEM	0.0	0.0	0.0	-
43.9	CAL-WL-083	Perm. Easement	PEM	2,921.9	3.7	3.7	-
43.9	CAL-WL-083	ATWS	PEM	0.0	0.6	0.0	-
44.2	CAL-WL-083	ATWS	PEM	0.0	0.3	0.0	-
44.3	CAL-WL-083	Temp. Easement	PEM	0.0	1.8	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
44.4	CAL-WL-083	ATWS	PEM	0.0	0.2	0.0	-
44.4	CAL-WL-083	Temp. Easement	PEM	0.0	4.6	0.0	-
44.4	CAL-WL-083	ATWS	PEM	0.0	0.3	0.0	-
44.5	CAL-WL-083	ATWS	PEM	0.0	0.2	0.0	-
44.6	CAL-WL-084	ATWS	PEM	0.0	0.1	0.0	-
44.6	CAL-WL-084	Perm. Easement	PEM	447.7	0.3	0.3	-
44.6	CAL-WL-084	Temp. Easement	PEM	0.0	0.3	0.0	-
44.6	CAL-WL-084	ATWS	PEM	0.0	0.2	0.0	-
44.6	CAL-WL-084	Temp. Easement	PEM	0.0	0.5	0.0	-
44.7	CAL-WL-085	ATWS	PEM	0.0	0.2	0.0	-
44.7	CAL-WL-085	Perm. Easement	PEM	57.7	0.4	0.4	-
44.7	CAL-WL-085	Temp. Easement	PEM	0.0	0.4	0.0	-
44.8	CAL-WL-085	ATWS	PEM	0.0	0.2	0.0	-
44.8	CAL-WL-085	Temp. Easement	PEM	0.0	0.9	0.0	-
44.8	CAL-WL-085	Perm. Easement	PSS	57.7	0.0	0.0	-
44.8	CAL-WL-085	Temp. Easement	PSS	0.0	0.0	0.0	-
44.8	CAL-WL-085	Temp. Easement	PSS	0.0	0.0	0.0	-
44.8	CAL-WL-085	Temp. Easement	PSS	0.0	0.1	0.0	-
45.1	CAL-WL-086	Perm. Easement	PEM	741.8	1.9	1.9	-
45.1	CAL-WL-086	Temp. Easement	PEM	0.0	1.4	0.0	-
45.1	CAL-WL-086	ATWS	PEM	0.0	0.2	0.0	-
45.3	CAL-WL-086	Temp. Easement	PEM	0.0	2.6	0.0	-
45.5	CAL-WL-086	ATWS	PEM	0.0	0.8	0.0	-
45.6	CAL-WL-087	ATWS	PFO	0.0	0.1	0.0	-
45.6	CAL-WL-087	Perm. Easement	PFO	83.2	0.1	0.1	0.1
45.6	CAL-WL-087	Temp. Easement	PFO	0.0	0.0	0.0	-
45.6	CAL-WL-087	Temp. Easement	PFO	0.0	0.1	0.0	-
45.6	CAL-WL-087	Perm. Easement	PFO	105.5	0.4	0.4	0.4
45.6	CAL-WL-087	Temp. Easement	PFO	0.0	0.3	0.0	-
45.7	CAL-WL-087	Temp. Easement	PFO	0.0	0.0	0.0	-
46.0	CAL-WL-088	Perm. Easement	PEM	310.0	0.2	0.2	-
46.0	CAL-WL-088	Temp. Easement	PEM	0.0	0.1	0.0	-
46.1	CAL-WL-088	ATWS	PEM	0.0	0.0	0.0	-
46.1	CAL-WL-088	Temp. Easement	PEM	0.0	0.0	0.0	-
46.1	CAL-WL-089	ATWS	PEM	0.0	0.2	0.0	-
46.1	CAL-WL-089	Perm. Easement	PEM	885.8	1.5	1.5	-
46.1	CAL-WL-089	ATWS	PEM	0.0	0.1	0.0	-
46.2	CAL-WL-089	ATWS	PEM	0.0	0.1	0.0	-
46.2	CAL-WL-089	Temp. Easement	PEM	0.0	0.6	0.0	-
46.3	CAL-WL-089	ATWS	PEM	0.0	0.3	0.0	-
46.3	CAL-WL-089	Temp. Easement	PEM	0.0	0.9	0.0	-
46.3	CAL-WL-090	Perm. Easement	PEM	885.8	1.1	1.1	-
46.3	CAL-WL-090	ATWS	PEM	0.0	0.4	0.0	-
46.4	CAL-WL-090	Temp. Easement	PEM	0.0	0.4	0.0	-
46.4	CAL-WL-090	ATWS	PEM	0.0	0.4	0.0	-
46.4	CAL-WL-090	Temp. Easement	PEM	0.0	0.7	0.0	-
46.7	CAL-WL-091	Perm. Easement	PEM	453.9	0.7	0.7	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
46.7	CAL-WL-091	Temp. Easement	PEM	0.0	0.4	0.0	-
46.7	CAL-WL-091	Temp. Easement	PEM	0.0	0.7	0.0	-
46.7	CAL-WL-091	ATWS	PEM	0.0	0.5	0.0	-
46.8	CAL-WL-092	Perm. Easement	PEM	25.7	1.5	1.5	-
47.0	CAL-WL-092	Temp. Easement	PEM	0.0	0.6	0.0	-
47.0	CAL-WL-092	Access Road	PEM	0.0	0.9	0.9	-
47.0	CAL-WL-092	Temp. Easement	PEM	0.0	0.6	0.0	-
47.0	CAL-WL-092	Temp. Easement	PEM	0.0	0.4	0.0	-
47.1	CAL-WL-092	ATWS	PEM	0.0	0.5	0.0	-
47.1	CAL-WL-092	ATWS	PEM	0.0	0.0	0.0	-
47.1	CAL-WL-092	Perm. Easement	PEM	25.7	0.0	0.0	-
47.1	CAL-WL-092	Temp. Easement	PEM	0.0	0.1	0.0	-
47.1	CAL-WL-092	ATWS	PEM	0.0	0.0	0.0	-
47.1	CAL-WL-092	Temp. Easement	PEM	0.0	0.0	0.0	-
47.1	CAL-WL-093	ATWS	PEM	0.0	0.0	0.0	-
47.1	CAL-WL-094	ATWS	PFO	0.0	0.0	0.0	-
47.1	CAL-WL-094	Perm. Easement	PFO	158.8	0.2	0.2	0.2
47.2	CAL-WL-094	Temp. Easement	PFO	0.0	0.0	0.0	-
47.2	CAL-WL-094	Temp. Easement	PFO	0.0	0.1	0.0	-
47.2	CAL-WL-094	Temp. Easement	PFO	0.0	0.0	0.0	-
47.2	CAL-WL-095	Perm. Easement	PFO	77.2	0.1	0.1	0.1
47.2	CAL-WL-095	Temp. Easement	PFO	0.0	0.0	0.0	-
47.2	CAL-WL-095	ATWS	PFO	0.0	0.5	0.0	-
47.2	CAL-WL-095	ATWS	PFO	0.0	0.2	0.0	-
47.2	CAL-WL-095	Temp. Easement	PFO	0.0	0.3	0.0	-
47.2	CAL-WL-095	Perm. Easement	PFO	430.0	0.5	0.5	0.5
47.2	CAL-WL-095	ATWS	PFO	0.0	0.2	0.0	-
47.2	CAL-WL-095	ATWS	PFO	0.0	0.1	0.0	-
47.3	CAL-WL-095	ATWS	PFO	0.0	0.1	0.0	-
47.3	CAL-WL-095	Temp. Easement	PFO	0.0	0.3	0.0	-
47.3	CAL-WL-095	ATWS	PFO	0.0	0.1	0.0	-
47.3	CAL-WL-096	Temp. Easement	PFO	0.0	0.2	0.0	-
47.3	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.3	CAL-WL-096	Access Road	PFO	0.0	0.0	0.0	-
47.4	CAL-WL-096	Access Road	PFO	0.0	0.0	0.0	-
47.4	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.4	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.4	CAL-WL-096	Access Road	PEM	0.0	0.1	0.1	-
47.4	CAL-WL-096	ATWS	PFO	0.0	0.6	0.0	-
47.4	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.5	CAL-WL-096	Access Road	PEM	0.0	0.0	0.0	-
47.5	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.5	CAL-WL-096	ATWS	PFO	0.0	0.2	0.0	-
47.5	CAL-WL-096	Access Road	PFO	0.0	0.0	0.0	-
47.5	CAL-WL-096	Access Road	PEM	0.0	0.0	0.0	-
47.5	CAL-WL-096	Access Road	PFO	0.0	0.0	0.0	0.0
47.5	CAL-WL-096	ATWS	PFO	0.0	0.3	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
47.5	CAL-WL-096	Perm. Easement	PFO	141.9	0.2	0.2	0.2
47.5	CAL-WL-096	Temp. Easement	PFO	0.0	0.1	0.0	-
47.5	CAL-WL-096	Temp. Easement	PFO	0.0	0.6	0.0	-
47.5	CAL-WL-096	ATWS	PFO	0.0	0.0	0.0	-
47.6	CAL-WL-096	Access Road	PFO	0.0	0.0	0.0	-
47.9	CAL-WL-097	Access Road	PEM	0.0	0.3	0.0	-
47.9	CAL-WL-097	Access Road	PEM	0.0	0.0	0.0	-
47.9	CAL-WL-097	Access Road	PEM	0.0	0.1	0.0	-
47.9	CAL-WL-097	Access Road	PEM	0.0	0.2	0.0	-
48.0	CAL-WL-097	ATWS	PEM	0.0	0.3	0.0	-
48.0	CAL-WL-097	ATWS	PEM	0.0	0.1	0.0	-
48.0	CAL-WL-097	ATWS	PEM	0.0	0.0	0.0	-
48.1	CAL-WL-098	ATWS	PFO	0.0	0.0	0.0	-
48.1	CAL-WL-098	Perm. Easement	PFO	0.0	0.0	0.0	0.0
48.1	CAL-WL-098	Temp. Easement	PFO	0.0	0.0	0.0	-
48.1	CAL-WL-098	Temp. Easement	PEM	0.0	0.0	0.0	-
48.1	CAL-WL-098	Access Road	PEM	0.0	0.1	0.0	-
48.1	CAL-WL-098	ATWS	PFO	0.0	0.0	0.0	-
48.2	CAL-WL-098	Perm. Easement	PEM	49.2	0.1	0.1	-
48.2	CAL-WL-098	Temp. Easement	PEM	0.0	0.0	0.0	-
48.2	CAL-WL-098	Access Road	PEM	0.0	0.1	0.0	-
48.2	CAL-WL-098	Perm. Easement	PEM	0.0	0.0	0.0	-
48.2	CAL-WL-098	Temp. Easement	PEM	0.0	0.0	0.0	-
48.2	CAL-WL-098	Access Road	PEM	0.0	0.1	0.0	-
48.2	CAL-WL-098	ATWS	PEM	0.0	0.0	0.0	-
48.2	CAL-WL-098	ATWS	PEM	0.0	0.0	0.0	-
48.5	CAL-WL-102	ATWS	PEM	0.0	0.0	0.0	-
48.5	CAL-WL-102	Temp. Easement	PEM	0.0	0.0	0.0	-
48.6	CAL-WL-103	Perm. Easement	PEM	57.2	0.0	0.0	-
48.6	CAL-WL-104	ATWS	PFO	0.0	0.1	0.0	-
48.6	CAL-WL-104	Perm. Easement	PFO	1,845.7	0.3	0.3	0.3
48.6	CAL-WL-104	ATWS	PFO	0.0	0.0	0.0	-
48.6	CAL-WL-104	ATWS	PEM	0.0	0.1	0.0	-
48.6	CAL-WL-104	Temp. Easement	PFO	0.0	0.1	0.0	-
48.7	CAL-WL-104	ATWS	PEM	0.0	0.0	0.0	-
48.7	CAL-WL-104	Perm. Easement	PEM	1,845.7	1.8	1.8	-
48.7	CAL-WL-104	Temp. Easement	PFO	0.0	0.2	0.0	-
48.7	CAL-WL-104	Temp. Easement	PEM	0.0	0.0	0.0	-
48.7	CAL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
48.7	CAL-WL-104	Perm. Easement	PFO	0.0	0.3	0.3	0.3
48.7	CAL-WL-104	Temp. Easement	PFO	0.0	0.7	0.0	-
48.9	CAL-WL-104	ATWS	PEM	0.0	0.0	0.0	-
48.9	CAL-WL-104	ATWS	PFO	0.0	0.3	0.0	-
48.9	CAL-WL-104	Temp. Easement	PEM	0.0	0.2	0.0	-
49.0	CAL-WL-104	Perm. Easement	PFO	0.0	0.1	0.1	0.1
49.0	CAL-WL-104	Temp. Easement	PEM	0.0	1.1	0.0	-
49.0	CAL-WL-104	Temp. Easement	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
49.0	CAL-WL-104	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.0	CAL-WL-104	Temp. Easement	PFO	0.0	0.6	0.0	-
49.1	CAL-WL-104	Temp. Easement	PEM	0.0	0.0	0.0	-
49.1	CAL-WL-104	Temp. Easement	PFO	0.0	0.4	0.0	-
49.1	CAL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
49.1	CAL-WL-104	Perm. Easement	PEM	343.7	0.4	0.4	-
49.1	CAL-WL-104	Temp. Easement	PEM	0.0	0.3	0.0	-
49.1	CAL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
49.2	CAL-WL-104	Temp. Easement	PEM	0.0	0.0	0.0	-
49.2	CAL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
49.2	CAL-WL-104	Perm. Easement	PFO	0.0	0.1	0.1	0.1
49.2	CAL-WL-104	Temp. Easement	PFO	0.0	0.4	0.0	-
49.2	CAL-WL-105	Temp. Easement	PEM	0.0	0.0	0.0	-
49.2	CAL-WL-104	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.2	CAL-WL-106	Perm. Easement	PFO	170.9	0.1	0.1	0.1
49.2	CAL-WL-104	Temp. Easement	PFO	0.0	0.0	0.0	-
49.3	CAL-WL-106	Temp. Easement	PEM	0.0	0.1	0.0	-
49.3	CAL-WL-106	Temp. Easement	PEM	0.0	0.0	0.0	-
49.3	CAL-WL-106	Temp. Easement	PFO	0.0	0.1	0.0	-
49.3	CAL-WL-241	Access Road	PEM	0.0	0.0	0.0	-
49.3	CAL-WL-106	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.3	CAL-WL-241	Access Road	PEM	0.0	0.0	0.0	-
49.3	CAL-WL-106	Temp. Easement	PFO	0.0	0.4	0.0	-
49.3	CAL-WL-106	Temp. Easement	PEM	0.0	0.1	0.0	-
49.4	CAL-WL-106	Perm. Easement	PFO	88.5	0.1	0.1	0.1
49.4	CAL-WL-106	Temp. Easement	PFO	0.0	0.0	0.0	-
49.4	CAL-WL-106	Temp. Easement	PEM	0.0	0.0	0.0	-
49.4	CAL-WL-106	Perm. Easement	PFO	31.2	0.0	0.0	0.0
49.4	CAL-WL-106	Temp. Easement	PEM	0.0	0.0	0.0	-
49.4	CAL-WL-106	Temp. Easement	PFO	0.0	0.1	0.0	-
49.4	CAL-WL-106	Temp. Easement	PFO	0.0	0.0	0.0	-
49.4	CAL-WL-106	Temp. Easement	PEM	0.0	0.0	0.0	-
49.4	CAL-WL-107	Temp. Easement	PFO	0.0	0.0	0.0	-
49.4	CAL-WL-107	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.4	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.4	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.4	CAL-WL-107	Temp. Easement	PFO	0.0	0.0	0.0	-
49.5	CAL-WL-107	Perm. Easement	PEM	10.4	0.0	0.0	-
49.5	CAL-WL-107	Temp. Easement	PFO	0.0	0.1	0.0	-
49.5	CAL-WL-107	Perm. Easement	PEM	41.1	0.0	0.0	-
49.5	CAL-WL-107	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.5	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.5	CAL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
49.5	CAL-WL-107	Perm. Easement	PEM	155.2	0.1	0.1	-
49.5	CAL-WL-107	Temp. Easement	PFO	0.0	0.3	0.0	-
49.5	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.5	CAL-WL-107	Perm. Easement	PFO	0.0	0.1	0.1	0.1

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
49.5	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.5	CAL-WL-107	Perm. Easement	PEM	44.8	0.0	0.0	-
49.5	CAL-WL-107	Perm. Easement	PFO	0.0	0.0	0.0	0.0
49.5	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.6	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.6	CAL-WL-107	Perm. Easement	PFO	102.5	0.1	0.1	0.1
49.6	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.6	CAL-WL-107	Temp. Easement	PFO	0.0	0.1	0.0	-
49.6	CAL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
49.6	CAL-WL-113	Access Road	PEM	0.0	2.3	2.3	-
49.6	CAL-WL-107	Temp. Easement	PFO	0.0	0.0	0.0	-
49.6	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.6	CAL-WL-112	Access Road	PEM	0.0	0.3	0.3	-
49.6	CAL-WL-107	Perm. Easement	PEM	105.6	0.0	0.0	-
49.6	CAL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.7	CAL-WL-107	Perm. Easement	PFO	0.0	0.1	0.1	0.1
49.7	CAL-WL-107	Temp. Easement	PFO	0.0	0.2	0.0	-
49.7	CAL-WL-111	Access Road	PEM	0.0	0.4	0.4	-
49.7	CAL-WL-107	Perm. Easement	PEM	160.5	0.1	0.1	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
49.7	CAL-WL-110	Access Road	PEM	0.0	0.2	0.2	-
49.7	CAL-WL-107	Access Road	PEM	0.0	0.1	0.1	-
49.7	CAL-WL-107	Perm. Easement	PEM	65.1	0.0	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.7	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-108	ATWS	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-108	ATWS	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-108	ATWS	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-107	Temp. Easement	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-114	Perm. Easement	PEM	39.0	0.0	0.0	-
49.8	CAL-WL-114	Temp. Easement	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-114	ATWS	PFO	0.0	0.0	0.0	-
49.8	CAL-WL-114	ATWS	PSS	0.0	0.1	0.0	-
49.8	CAL-WL-114	Perm. Easement	PSS	0.0	0.1	0.1	-
49.8	CAL-WL-114	Perm. Easement	PEM	86.2	0.0	0.0	-
49.8	CAL-WL-114	Temp. Easement	PEM	0.0	0.1	0.0	-
49.8	CAL-WL-114	Temp. Easement	PSS	0.0	0.1	0.0	-
49.8	CAL-WL-114	Perm. Easement	PEM	0.0	0.0	0.0	-
49.8	CAL-WL-114	Temp. Easement	PSS	0.0	0.1	0.0	-
49.9	CAL-WL-114	ATWS	PSS	0.0	0.0	0.0	-
49.9	CAL-WL-114	Perm. Easement	PSS	0.0	0.0	0.0	-
49.9	CAL-WL-115	Perm. Easement	PFO	63.2	0.2	0.2	0.2

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
49.9	CAL-WL-115	Temp. Easement	PFO	0.0	0.0	0.0	-
49.9	CAL-WL-115	Temp. Easement	PFO	0.0	0.0	0.0	-
49.9	CAL-WL-115	ATWS	PFO	0.0	0.6	0.0	-
49.9	CAL-WL-115	Perm. Easement	PEM	66.7	0.1	0.1	-
49.9	CAL-WL-115	Temp. Easement	PEM	0.0	0.0	0.0	-
50.0	CAL-WL-115	Temp. Easement	PFO	0.0	0.3	0.0	-
50.0	CAL-WL-115	Perm. Easement	PEM	39.0	0.0	0.0	-
50.0	CAL-WL-115	Perm. Easement	PFO	0.0	0.0	0.0	0.0
50.0	CAL-WL-115	Temp. Easement	PEM	0.0	0.0	0.0	-
50.3	CAL-WL-117	ATWS	PFO	0.0	0.1	0.0	-
50.3	CAL-WL-117	ATWS	PFO	0.0	0.1	0.0	-
50.3	CAL-WL-117	Temp. Easement	PFO	0.0	0.0	0.0	-
50.3	CAL-WL-117	ATWS	PFO	0.0	0.1	0.0	-
50.3	CAL-WL-117	Temp. Easement	PFO	0.0	0.0	0.0	-
50.4	CAL-WL-119	Perm. Easement	PFO	46.5	0.1	0.1	0.1
50.4	CAL-WL-119	Temp. Easement	PFO	0.0	0.1	0.0	-
50.4	CAL-WL-119	ATWS	PFO	0.0	0.0	0.0	-
50.4	CAL-WL-119	Temp. Easement	PFO	0.0	0.1	0.0	-
50.4	CAL-WL-119	ATWS	PFO	0.0	0.0	0.0	-
50.4	CAL-WL-119	Perm. Easement	PFO	35.8	0.0	0.0	0.0
50.4	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.4	CAL-WL-120	Perm. Easement	PFO	22.2	0.0	0.0	0.0
50.4	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.4	CAL-WL-120	Perm. Easement	PEM	22.2	0.7	0.7	-
50.4	CAL-WL-120	Perm. Easement	PFO	0.0	0.3	0.3	0.3
50.4	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.5	CAL-WL-120	Temp. Easement	PFO	0.0	0.6	0.0	-
50.5	CAL-WL-120	ATWS	PFO	0.0	0.3	0.0	-
50.5	CAL-WL-120	Temp. Easement	PEM	0.0	0.3	0.0	-
50.6	CAL-WL-120	Temp. Easement	PEM	0.0	0.1	0.0	-
50.6	CAL-WL-120	Perm. Easement	PEM	358.0	0.2	0.2	-
50.6	CAL-WL-120	Perm. Easement	PFO	0.0	0.1	0.1	0.1
50.6	CAL-WL-120	Temp. Easement	PFO	0.0	0.1	0.0	-
50.7	CAL-WL-120	Temp. Easement	PEM	0.0	0.1	0.0	-
50.7	CAL-WL-120	Perm. Easement	PFO	0.0	0.0	0.0	0.0
50.7	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.7	CAL-WL-120	Perm. Easement	PFO	34.4	0.6	0.6	0.6
50.7	CAL-WL-120	Temp. Easement	PFO	0.0	0.1	0.0	-
50.7	CAL-WL-120	Temp. Easement	PFO	0.0	0.1	0.0	-
50.8	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.8	CAL-WL-120	Temp. Easement	PFO	0.0	0.1	0.0	-
50.8	CAL-WL-122	Perm. Easement	PEM	34.4	0.0	0.0	-
50.8	CAL-WL-122	Temp. Easement	PEM	0.0	0.0	0.0	-
50.8	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.8	CAL-WL-120	Temp. Easement	PFO	0.0	0.0	0.0	-
50.8	CAL-WL-122	Perm. Easement	PEM	34.4	0.1	0.1	-
50.8	CAL-WL-122	Temp. Easement	PEM	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
50.8	CAL-WL-122	Temp. Easement	PEM	0.0	0.0	0.0	-
50.8	CAL-WL-122	Temp. Easement	PFO	0.0	0.4	0.0	-
50.9	CAL-WL-122	Perm. Easement	PFO	38.4	0.5	0.5	0.5
50.9	CAL-WL-122	Perm. Easement	PEM	38.4	0.1	0.1	-
50.9	CAL-WL-122	Temp. Easement	PEM	0.0	0.1	0.0	-
50.9	CAL-WL-124	Access Road	PFO	0.0	0.1	0.1	0.1
50.9	CAL-WL-124	Access Road	PEM	0.0	0.2	0.2	-
50.9	CAL-WL-125	Access Road	PEM	0.0	0.0	0.0	-
50.9	CAL-WL-125	Perm. Easement	PEM	162.0	0.1	0.1	-
50.9	CAL-WL-125	Temp. Easement	PEM	0.0	0.1	0.0	-
51.0	CAL-WL-125	Perm. Easement	PFO	0.0	0.1	0.1	0.1
51.0	CAL-WL-125	Temp. Easement	PFO	0.0	0.1	0.0	-
51.0	CAL-WL-126	Perm. Easement	PEM	294.6	0.1	0.1	-
51.0	CAL-WL-126	Temp. Easement	PEM	0.0	0.1	0.0	-
51.0	CAL-WL-126	Temp. Easement	PFO	0.0	0.1	0.0	-
51.0	CAL-WL-126	Access Road	PEM	0.0	0.1	0.0	-
51.0	CAL-WL-126	Perm. Easement	PFO	0.0	0.2	0.2	0.2
51.1	CAL-WL-128	Perm. Easement	PEM	51.7	0.1	0.1	-
51.1	CAL-WL-128	Temp. Easement	PEM	0.0	0.0	0.0	-
51.1	CAL-WL-128	Temp. Easement	PEM	0.0	0.1	0.0	-
51.3	CAL-WL-129	ATWS	PFO	0.0	0.1	0.0	-
51.3	CAL-WL-129	Perm. Easement	PFO	357.7	1.3	1.3	1.3
51.3	CAL-WL-129	ATWS	PFO	0.0	0.1	0.0	-
51.4	CAL-WL-129	ATWS	PFO	0.0	0.4	0.0	-
51.5	CAL-WL-129	Temp. Easement	PFO	0.0	0.8	0.0	-
51.5	CAL-WL-129	Temp. Easement	PFO	0.0	0.5	0.0	-
51.5	CAL-WL-129	ATWS	PFO	0.0	0.2	0.0	-
51.5	CAL-WL-129	ATWS	PEM	0.0	0.0	0.0	-
51.5	CAL-WL-129	ATWS	PEM	0.0	0.0	0.0	-
51.5	CAL-WL-129	Perm. Easement	PEM	165.6	0.4	0.4	-
51.5	CAL-WL-129	Temp. Easement	PEM	0.0	0.3	0.0	-
51.6	CAL-WL-129	ATWS	PEM	0.0	0.1	0.0	-
51.6	CAL-WL-129	ATWS	PEM	0.0	0.0	0.0	-
51.6	CAL-WL-129	ATWS	PFO	0.0	0.1	0.0	-
51.6	CAL-WL-129	ATWS	PEM	0.0	0.0	0.0	-
51.6	CAL-WL-129	ATWS	PEM	0.0	0.0	0.0	-
51.6	CAL-WL-129	Temp. Easement	PEM	0.0	0.2	0.0	-
51.6	CAL-WL-129	ATWS	PFO	0.0	0.1	0.0	-
51.6	CAL-WL-129	Perm. Easement	PFO	165.6	0.2	0.2	0.2
51.6	CAL-WL-129	Temp. Easement	PFO	0.0	0.1	0.0	-
51.6	CAL-WL-129	Temp. Easement	PFO	0.0	0.1	0.0	-
51.6	CAL-WL-130	ATWS	PFO	0.0	0.0	0.0	-
51.6	CAL-WL-130	Perm. Easement	PFO	476.6	0.6	0.6	0.6
51.7	CAL-WL-130	Temp. Easement	PFO	0.0	0.2	0.0	-
51.7	CAL-WL-130	Temp. Easement	PFO	0.0	0.1	0.0	-
51.7	CAL-WL-130	Temp. Easement	PFO	0.0	0.2	0.0	-
51.7	CAL-WL-130	Temp. Easement	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
51.7	CAL-WL-130	ATWS	PFO	0.0	0.1	0.0	-
51.7	CAL-WL-130	ATWS	PFO	0.0	0.1	0.0	-
51.7	CAL-WL-131	ATWS	PFO	0.0	0.1	0.0	-
51.7	CAL-WL-131	ATWS	PFO	0.0	0.1	0.0	-
51.7	CAL-WL-131	Perm. Easement	PFO	417.0	0.5	0.5	0.5
51.7	CAL-WL-131	Temp. Easement	PFO	0.0	0.2	0.0	-
51.8	CAL-WL-131	ATWS	PFO	0.0	0.3	0.0	-
51.8	CAL-WL-131	ATWS	PFO	0.0	0.1	0.0	-
51.8	CAL-WL-131	Temp. Easement	PFO	0.0	0.2	0.0	-
51.8	CAL-WL-131	Perm. Easement	PEM	417.0	0.1	0.1	-
51.8	CAL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
51.8	CAL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
51.9	CAL-WL-132	Perm. Easement	PFO	1,551.0	1.8	1.8	1.8
51.9	CAL-WL-132	ATWS	PFO	0.0	0.2	0.0	-
51.9	CAL-WL-132	Temp. Easement	PFO	0.0	1.0	0.0	-
52.1	CAL-WL-132	ATWS	PFO	0.0	0.0	0.0	-
52.1	CAL-WL-132	ATWS	PFO	0.0	0.2	0.0	-
52.1	CAL-WL-132	Temp. Easement	PFO	0.0	0.0	0.0	-
52.1	CAL-WL-132	Temp. Easement	PFO	0.0	0.7	0.0	-
52.3	CAL-WL-133	Perm. Easement	PEM	58.5	0.3	0.3	-
52.3	CAL-WL-133	Temp. Easement	PEM	0.0	0.1	0.0	-
52.3	CAL-WL-133	ATWS	PEM	0.0	0.0	0.0	-
52.3	CAL-WL-133	Temp. Easement	PEM	0.0	0.1	0.0	-
52.3	CAL-WL-133	ATWS	PEM	0.0	0.3	0.0	-
52.3	CAL-WL-133	Perm. Easement	PSS	130.4	0.2	0.2	-
52.3	CAL-WL-133	Temp. Easement	PSS	0.0	0.0	0.0	-
52.3	CAL-WL-133	Temp. Easement	PEM	0.0	0.2	0.0	-
52.3	CAL-WL-133	Temp. Easement	PSS	0.0	0.0	0.0	-
52.3	CAL-WL-133	Temp. Easement	PSS	0.0	0.0	0.0	-
52.3	CAL-WL-133	Perm. Easement	PEM	0.0	0.0	0.0	-
52.3	CAL-WL-133	Temp. Easement	PSS	0.0	0.0	0.0	-
52.4	CAL-WL-133	ATWS	PEM	0.0	0.0	0.0	-
52.4	CAL-WL-133	Perm. Easement	PEM	18.1	0.1	0.1	-
52.4	CAL-WL-133	Temp. Easement	PEM	0.0	0.1	0.0	-
52.4	CAL-WL-134	Perm. Easement	PFO	0.0	0.0	0.0	0.0
52.4	CAL-WL-134	Temp. Easement	PFO	0.0	0.0	0.0	-
52.4	CAL-WL-135	Perm. Easement	PSS	24.8	0.0	0.0	-
52.4	CAL-WL-135	Temp. Easement	PSS	0.0	0.0	0.0	-
52.4	CAL-WL-135	Temp. Easement	PSS	0.0	0.0	0.0	-
52.4	CAL-WL-135	ATWS	PSS	0.0	0.0	0.0	-
52.4	CAL-WL-135	ATWS	PFO	0.0	0.0	0.0	-
52.5	CAL-WL-135	ATWS	PFO	0.0	0.1	0.0	-
52.5	CAL-WL-135	ATWS	PFO	0.0	0.1	0.0	-
52.5	CAL-WL-135	Perm. Easement	PFO	243.2	0.3	0.3	0.3
52.5	CAL-WL-135	Temp. Easement	PFO	0.0	0.1	0.0	-
52.5	CAL-WL-135	Temp. Easement	PFO	0.0	0.1	0.0	-
52.5	CAL-WL-136	Perm. Easement	PFO	193.6	0.2	0.2	0.2

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
52.5	CAL-WL-136	Temp. Easement	PFO	0.0	0.0	0.0	-
52.5	CAL-WL-136	Temp. Easement	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	Temp. Easement	PFO	0.0	0.1	0.0	-
52.6	CAL-WL-136	Temp. Easement	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	Perm. Easement	PFO	23.5	0.0	0.0	0.0
52.6	CAL-WL-136	Temp. Easement	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	ATWS	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	ATWS	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	ATWS	PFO	0.0	0.1	0.0	-
52.6	CAL-WL-136	Perm. Easement	PFO	0.0	0.0	0.0	-
52.6	CAL-WL-136	Temp. Easement	PFO	0.0	0.1	0.0	-
52.6	CAL-WL-136	Perm. Easement	PFO	21.3	0.0	0.0	0.0
52.6	CAL-WL-136	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	ATWS	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	Perm. Easement	PFO	16.4	0.0	0.0	0.0
52.7	CAL-WL-137	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	ATWS	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	Perm. Easement	PFO	28.4	0.0	0.0	0.0
52.7	CAL-WL-138	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-137	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-138	Perm. Easement	PFO	74.4	0.3	0.3	0.3
52.7	CAL-WL-138	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-138	Temp. Easement	PFO	0.0	0.0	0.0	-
52.7	CAL-WL-138	Temp. Easement	PFO	0.0	0.1	0.0	-
52.7	CAL-WL-138	Temp. Easement	PFO	0.0	0.0	0.0	-
52.8	CAL-WL-139	Perm. Easement	PFO	50.6	1.7	1.7	1.7
53.0	CAL-WL-139	ATWS	PFO	0.0	0.2	0.0	-
53.0	CAL-WL-139	Temp. Easement	PFO	0.0	0.7	0.0	-
53.0	CAL-WL-139	ATWS	PFO	0.0	0.1	0.0	-
53.0	CAL-WL-139	Temp. Easement	PFO	0.0	1.0	0.0	-
53.0	CAL-WL-139	ATWS	PEM	0.0	0.0	0.0	-
53.0	CAL-WL-139	Perm. Easement	PEM	235.3	0.1	0.1	-
53.0	CAL-WL-139	Temp. Easement	PEM	0.0	0.0	0.0	-
53.0	CAL-WL-139	ATWS	PFO	0.0	0.0	0.0	-
53.0	CAL-WL-139	ATWS	PFO	0.0	0.0	0.0	-
53.0	CAL-WL-139	ATWS	PEM	0.0	0.0	0.0	-
53.0	CAL-WL-139	Perm. Easement	PFO	235.3	0.3	0.3	0.3
53.0	CAL-WL-139	Temp. Easement	PFO	0.0	0.1	0.0	-
53.0	CAL-WL-139	Temp. Easement	PEM	0.0	0.0	0.0	-
53.1	CAL-WL-139	Temp. Easement	PFO	0.0	0.1	0.0	-
53.1	CAL-WL-139	ATWS	PFO	0.0	0.1	0.0	-
53.1	CAL-WL-139	ATWS	PFO	0.0	0.1	0.0	-
53.1	CAL-WL-140	ATWS	PFO	0.0	0.2	0.0	-
53.1	CAL-WL-140	Perm. Easement	PFO	307.0	0.3	0.3	0.3
53.1	CAL-WL-140	Temp. Easement	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
53.2	CAL-WL-140	Temp. Easement	PFO	0.0	0.2	0.0	-
53.2	CAL-WL-140	Perm. Easement	PFO	0.0	0.0	0.0	-
53.2	CAL-WL-140	Temp. Easement	PFO	0.0	0.0	0.0	-
53.2	CAL-WL-141	Perm. Easement	PFO	92.9	0.1	0.1	0.1
53.2	CAL-WL-141	ATWS	PFO	0.0	0.1	0.0	-
53.2	CAL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
53.2	CAL-WL-141	Temp. Easement	PFO	0.0	0.0	0.0	-
53.2	CAL-WL-141	Temp. Easement	PFO	0.0	0.0	0.0	-
53.3	CAL-WL-141	Perm. Easement	PFO	186.0	0.2	0.2	0.2
53.3	CAL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
53.3	CAL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
53.3	CAL-WL-141	Perm. Easement	PFO	97.1	0.3	0.3	0.3
53.3	CAL-WL-141	Temp. Easement	PFO	0.0	0.2	0.0	-
53.3	CAL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
53.4	CAL-WL-141	ATWS	PFO	0.0	0.0	0.0	-
53.4	CAL-WL-141	ATWS	PFO	0.0	0.1	0.0	-
53.4	CAL-WL-141	Perm. Easement	PFO	97.1	0.1	0.1	0.1
53.4	CAL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
53.4	CAL-WL-141	ATWS	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-141	ATWS	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-141	Temp. Easement	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-141	Perm. Easement	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-141	Temp. Easement	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-142	Perm. Easement	PEM	0.0	0.0	0.0	-
53.4	CAL-WL-142	Perm. Easement	PFO	234.3	0.2	0.2	0.2
53.5	CAL-WL-142	Temp. Easement	PFO	0.0	0.1	0.0	-
53.5	CAL-WL-142	Temp. Easement	PEM	0.0	0.1	0.0	-
53.5	CAL-WL-142	Perm. Easement	PFO	0.0	0.0	0.0	0.0
53.5	CAL-WL-142	Perm. Easement	PEM	0.0	0.0	0.0	-
53.5	CAL-WL-142	Perm. Easement	PFO	25.5	0.0	0.0	0.0
53.5	CAL-WL-142	Temp. Easement	PEM	0.0	0.0	0.0	-
53.5	CAL-WL-142	Temp. Easement	PFO	0.0	0.0	0.0	-
53.5	CAL-WL-142	Perm. Easement	PFO	92.4	0.1	0.1	0.1
53.5	CAL-WL-142	Perm. Easement	PEM	0.0	0.0	0.0	-
53.5	CAL-WL-142	Temp. Easement	PFO	0.0	0.0	0.0	-
53.5	CAL-WL-142	Temp. Easement	PEM	0.0	0.0	0.0	-
53.5	CAL-WL-142	Temp. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Temp. Easement	PFO	0.0	0.1	0.0	-
53.6	CAL-WL-143	Perm. Easement	PFO	41.5	0.2	0.2	0.2
53.6	CAL-WL-143	Temp. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Perm. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Perm. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Temp. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Temp. Easement	PFO	0.0	0.1	0.0	-
53.6	CAL-WL-143	Temp. Easement	PEM	0.0	0.0	0.0	-
53.6	CAL-WL-143	Perm. Easement	PFO	85.7	0.1	0.1	0.1
53.6	CAL-WL-143	Temp. Easement	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
53.6	CAL-WL-143	Temp. Easement	PEM	0.0	0.0	0.0	-
53.7	CAL-WL-143	Perm. Easement	PEM	85.7	0.0	0.0	-
53.7	CAL-WL-143	Perm. Easement	PFO	0.0	0.0	0.0	0.0
53.7	CAL-WL-143	Perm. Easement	PEM	42.3	0.1	0.1	-
53.7	CAL-WL-143	Perm. Easement	PFO	0.0	0.1	0.1	0.1
53.7	CAL-WL-143	Temp. Easement	PFO	0.0	0.1	0.0	-
53.7	CAL-WL-143	Perm. Easement	PFO	0.0	0.1	0.1	0.1
53.7	CAL-WL-143	Temp. Easement	PFO	0.0	0.0	0.0	-
53.7	CAL-WL-143	Perm. Easement	PEM	48.8	0.0	0.0	-
53.7	CAL-WL-146	Temp. Easement	PFO	0.0	0.0	0.0	-
53.7	CAL-WL-143	Temp. Easement	PEM	0.0	0.3	0.0	-
53.8	CAL-WL-147	Temp. Easement	PFO	0.0	0.0	0.0	-
53.8	CAL-WL-149	Perm. Easement	PEM	16.9	0.0	0.0	-
53.8	CAL-WL-149	Temp. Easement	PFO	0.0	0.0	0.0	-
53.8	CAL-WL-149	Temp. Easement	PEM	0.0	0.0	0.0	-
53.8	CAL-WL-149	Perm. Easement	PFO	0.0	0.0	0.0	0.0
53.8	CAL-WL-149	Perm. Easement	PEM	16.9	0.0	0.0	-
53.8	CAL-WL-149	Temp. Easement	PEM	0.0	0.0	0.0	-
53.8	CAL-WL-150	Perm. Easement	PEM	23.7	0.0	0.0	-
53.8	CAL-WL-150	Temp. Easement	PEM	0.0	0.0	0.0	-
53.8	CAL-WL-150	Temp. Easement	PFO	0.0	0.0	0.0	-
53.9	CAL-WL-150	Perm. Easement	PEM	55.7	0.0	0.0	-
53.9	CAL-WL-150	Perm. Easement	PFO	0.0	0.0	0.0	0.0
53.9	CAL-WL-150	Temp. Easement	PEM	0.0	0.0	0.0	-
53.9	CAL-WL-150	Perm. Easement	PEM	0.0	0.0	0.0	-
53.9	CAL-WL-150	Temp. Easement	PEM	0.0	0.0	0.0	-
53.9	CAL-WL-150	Temp. Easement	PFO	0.0	0.0	0.0	-
53.9	CAL-WL-150	Perm. Easement	PEM	463.8	0.1	0.1	-
53.9	CAL-WL-150	Temp. Easement	PFO	0.0	0.0	0.0	-
53.9	CAL-WL-150	Perm. Easement	PFO	0.0	0.1	0.1	0.1
53.9	CAL-WL-150	Temp. Easement	PFO	0.0	0.2	0.0	-
53.9	CAL-WL-150	ATWS	PFO	0.0	0.1	0.0	-
54.0	CAL-WL-150	Temp. Easement	PEM	0.0	0.2	0.0	-
54.0	CAL-WL-150	Perm. Easement	PFO	0.0	0.2	0.2	0.2
54.0	CAL-WL-150	ATWS	PFO	0.0	0.0	0.0	-
54.0	CAL-WL-150	Temp. Easement	PFO	0.0	0.0	0.0	-
54.0	CAL-WL-151	Perm. Easement	PEM	11.7	0.0	0.0	-
54.0	CAL-WL-151	Temp. Easement	PEM	0.0	0.0	0.0	-
54.0	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.0	CAL-WL-152	Perm. Easement	PFO	113.3	0.2	0.2	0.2
54.0	CAL-WL-152	Temp. Easement	PEM	0.0	0.1	0.0	-
54.0	CAL-WL-152	Temp. Easement	PFO	0.0	0.2	0.0	-
54.1	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.1	CAL-WL-152	Temp. Easement	PEM	0.0	0.1	0.0	-
54.1	CAL-WL-152	ATWS	PFO	0.0	0.1	0.0	-
54.1	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.1	CAL-WL-152	Perm. Easement	PFO	109.2	0.1	0.1	0.1

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
54.1	CAL-WL-152	Temp. Easement	PEM	0.0	0.1	0.0	-
54.1	CAL-WL-152	Temp. Easement	PFO	0.0	0.1	0.0	-
54.1	CAL-WL-152	ATWS	PFO	0.0	0.1	0.0	-
54.1	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.1	CAL-WL-152	Perm. Easement	PFO	78.0	0.1	0.1	0.1
54.1	CAL-WL-152	Temp. Easement	PFO	0.0	0.1	0.0	-
54.1	CAL-WL-152	ATWS	PFO	0.0	0.1	0.0	-
54.2	CAL-WL-152	Perm. Easement	PFO	33.4	0.1	0.1	0.1
54.2	CAL-WL-152	Perm. Easement	PEM	24.6	0.0	0.0	-
54.2	CAL-WL-152	Temp. Easement	PEM	0.0	0.0	0.0	-
54.2	CAL-WL-152	Temp. Easement	PEM	0.0	0.0	0.0	-
54.2	CAL-WL-152	Temp. Easement	PEM	0.0	0.0	0.0	-
54.2	CAL-WL-152	Temp. Easement	PEM	0.0	0.0	0.0	-
54.2	CAL-WL-152	Perm. Easement	PFO	24.6	0.2	0.2	0.2
54.2	CAL-WL-152	Temp. Easement	PEM	0.0	0.1	0.0	-
54.2	CAL-WL-152	Perm. Easement	PFO	183.7	0.3	0.3	0.3
54.2	CAL-WL-152	Temp. Easement	PFO	0.0	0.2	0.0	-
54.2	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.2	CAL-WL-152	Temp. Easement	PFO	0.0	0.0	0.0	-
54.3	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.3	CAL-WL-152	Temp. Easement	PEM	0.0	0.1	0.0	-
54.3	CAL-WL-152	Temp. Easement	PFO	0.0	0.1	0.0	-
54.3	CAL-WL-152	Perm. Easement	PFO	69.5	0.1	0.1	0.1
54.3	CAL-WL-152	Perm. Easement	PEM	0.0	0.0	0.0	-
54.3	CAL-WL-152	Temp. Easement	PEM	0.0	0.0	0.0	-
54.3	CAL-WL-152	Temp. Easement	PFO	0.0	0.1	0.0	-
54.3	CAL-WL-152	Perm. Easement	PFO	20.1	0.0	0.0	0.0
54.3	CAL-WL-154	Temp. Easement	PEM	0.0	0.0	0.0	-
54.3	CAL-WL-154	Perm. Easement	PEM	0.0	0.0	0.0	-
54.3	CAL-WL-152	Temp. Easement	PFO	0.0	0.0	0.0	-
54.3	CAL-WL-154	Temp. Easement	PFO	0.0	0.0	0.0	-
54.4	CAL-WL-154	Perm. Easement	PFO	0.0	0.0	0.0	-
54.4	CAL-WL-156	Temp. Easement	PEM	0.0	0.0	0.0	-
54.4	CAL-WL-156	Perm. Easement	PEM	0.0	0.0	0.0	-
54.4	CAL-WL-156	Temp. Easement	PFO	0.0	0.0	0.0	-
54.4	CAL-WL-156	Perm. Easement	PFO	34.4	0.0	0.0	0.0
54.4	CAL-WL-156	Perm. Easement	PEM	0.0	0.0	0.0	-
54.4	CAL-WL-156	Temp. Easement	PEM	0.0	0.0	0.0	-
54.4	CAL-WL-157	Temp. Easement	PFO	0.0	0.6	0.0	-
54.4	CAL-WL-157	Perm. Easement	PFO	313.2	1.0	1.0	1.0
54.4	CAL-WL-157	Temp. Easement	PEM	0.0	0.1	0.0	-
54.4	CAL-WL-157	ATWS	PFO	0.0	0.3	0.0	-
54.4	CAL-WL-157	Perm. Easement	PEM	0.0	0.0	0.0	-
54.5	CAL-WL-157	Temp. Easement	PFO	0.0	0.1	0.0	-
54.5	CAL-WL-157	Temp. Easement	PFO	0.0	0.0	0.0	-
54.5	CAL-WL-157	ATWS	PFO	0.0	0.2	0.0	-
54.6	CAL-WL-157	ATWS	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
54.6	CAL-WL-157	ATWS	PFO	0.0	0.0	0.0	-
54.6	CAL-WL-157	Temp. Easement	PFO	0.0	0.0	0.0	-
54.6	CAL-WL-157	ATWS	PFO	0.0	0.1	0.0	-
54.6	CAL-WL-157	ATWS	PFO	0.0	0.0	0.0	-
54.6	CAL-WL-157	Temp. Easement	PFO	0.0	0.1	0.0	-
54.8	CAL-WL-158	ATWS	PFO	0.0	0.1	0.0	-
54.8	CAL-WL-158	ATWS	PFO	0.0	0.1	0.0	-
54.8	CAL-WL-158	Perm. Easement	PFO	890.9	0.1	0.1	0.1
54.8	CAL-WL-158	Temp. Easement	PFO	0.0	0.1	0.0	-
54.8	CAL-WL-158	Temp. Easement	PFO	0.0	0.0	0.0	-
54.8	CAL-WL-158	Perm. Easement	PEM	20.5	1.0	1.0	-
54.8	CAL-WL-158	Temp. Easement	PEM	0.0	0.0	0.0	-
54.8	CAL-WL-158	Temp. Easement	PEM	0.0	0.6	0.0	-
54.8	CAL-WL-158	Access Road	PEM	0.0	0.1	0.1	-
54.8	CAL-WL-158	ATWS	PEM	0.0	0.1	0.0	-
54.8	CAL-WL-158	ATWS	PEM	0.0	0.5	0.0	-
54.8	CAL-WL-158	ATWS	PEM	0.0	0.0	0.0	-
54.9	CAL-WL-158	ATWS	PEM	0.0	0.0	0.0	-
54.9	CAL-WL-158	Access Road	PEM	0.0	1.0	1.0	-
54.9	CAL-WL-158	ATWS	PEM	0.0	0.0	0.0	-
54.9	CAL-WL-158	ATWS	PEM	0.0	0.0	0.0	-
54.9	CAL-WL-158	ATWS	PFO	0.0	0.2	0.0	-
54.9	CAL-WL-158	ATWS	PEM	0.0	1.0	0.0	-
55.0	CAL-WL-158	Perm. Easement	PFO	20.5	0.0	0.0	0.0
55.0	CAL-WL-158	Temp. Easement	PEM	0.0	0.1	0.0	-
55.0	CAL-WL-158	Temp. Easement	PFO	0.0	0.0	0.0	-
55.0	CAL-WL-158	Temp. Easement	PEM	0.0	0.2	0.0	-
55.0	CAL-WL-158	Perm. Easement	PEM	20.5	0.8	0.8	-
55.0	CAL-WL-158	Temp. Easement	PFO	0.0	0.0	0.0	-
55.0	CAL-WL-158	Temp. Easement	PFO	0.0	0.0	0.0	-
55.0	CAL-WL-158	Temp. Easement	PEM	0.0	0.5	0.0	-
55.1	CAL-WL-158	Temp. Easement	PEM	0.0	0.2	0.0	-
55.1	CAL-WL-158	Temp. Easement	PEM	0.0	0.1	0.0	-
55.5	CAL-WL-159	Perm. Easement	PEM	164.1	0.7	0.7	-
55.5	CAL-WL-159	Temp. Easement	PEM	0.0	0.5	0.0	-
55.6	CAL-WL-159	Temp. Easement	PEM	0.0	0.2	0.0	-
55.7	CAL-WL-159	Temp. Easement	PEM	0.0	0.9	0.0	-
55.7	CAL-WL-159	Temp. Easement	PEM	0.0	0.3	0.0	-
55.8	CAL-WL-159	ATWS	PEM	0.0	0.2	0.0	-
55.8	CAL-WL-160	Perm. Easement	PEM	115.4	0.1	0.1	-
55.8	CAL-WL-160	Temp. Easement	PEM	0.0	0.1	0.0	-
55.8	CAL-WL-160	ATWS	PEM	0.0	0.1	0.0	-
55.8	CAL-WL-160	Temp. Easement	PEM	0.0	0.2	0.0	-
55.8	CAL-WL-160	Temp. Easement	PEM	0.0	0.1	0.0	-
55.8	CAL-WL-160	Perm. Easement	PEM	105.7	0.1	0.1	-
55.8	CAL-WL-160	Temp. Easement	PEM	0.0	0.1	0.0	-
55.9	CAL-WL-160	Perm. Easement	PEM	194.9	0.2	0.2	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
55.9	CAL-WL-160	Temp. Easement	PEM	0.0	0.1	0.0	-
55.9	CAL-WL-160	Temp. Easement	PEM	0.0	0.3	0.0	-
56.0	CAL-WL-160	Perm. Easement	PEM	237.8	0.2	0.2	-
56.0	CAL-WL-160	Temp. Easement	PEM	0.0	0.1	0.0	-
56.0	CAL-WL-160	Temp. Easement	PEM	0.0	0.2	0.0	-
56.0	CAL-WL-161	Perm. Easement	PEM	22.6	0.1	0.1	-
56.1	CAL-WL-161	Temp. Easement	PEM	0.0	0.3	0.0	-
56.2	CAL-WL-162	Perm. Easement	PEM	317.4	0.3	0.3	-
56.2	CAL-WL-162	Temp. Easement	PEM	0.0	0.3	0.0	-
56.2	CAL-WL-162	Perm. Easement	PFO	0.0	0.0	0.0	-
56.2	CAL-WL-162	Temp. Easement	PEM	0.0	0.2	0.0	-
56.2	CAL-WL-162	Temp. Easement	PFO	0.0	0.0	0.0	-
56.2	CAL-WL-162	Temp. Easement	PFO	0.0	0.0	0.0	-
56.3	CAL-WL-162	ATWS	PFO	0.0	0.1	0.0	-
56.3	CAL-WL-162	ATWS	PEM	0.0	0.0	0.0	-
56.3	CAL-WL-162	Perm. Easement	PEM	0.0	0.0	0.0	-
56.3	CAL-WL-162	Temp. Easement	PEM	0.0	0.0	0.0	-
56.3	CAL-WL-163	Temp. Easement	PEM	0.0	0.0	0.0	-
56.5	CAL-WL-164	Perm. Easement	PFO	187.0	0.2	0.2	0.2
56.5	CAL-WL-164	Temp. Easement	PFO	0.0	0.1	0.0	-
56.6	CAL-WL-164	ATWS	PFO	0.0	0.0	0.0	-
56.6	CAL-WL-164	Temp. Easement	PFO	0.0	0.1	0.0	-
56.6	CAL-WL-164	ATWS	PFO	0.0	0.1	0.0	-
56.7	CAL-WL-165	Perm. Easement	PEM	215.2	0.3	0.3	-
56.7	CAL-WL-165	Temp. Easement	PEM	0.0	0.2	0.0	-
56.7	CAL-WL-165	Temp. Easement	PEM	0.0	0.2	0.0	-
56.7	CAL-WL-165	ATWS	PEM	0.0	0.2	0.0	-
56.7	CAL-WL-165	Access Road	PEM	0.0	0.3	0.3	-
56.7	CAL-WL-165	ATWS	PEM	0.0	0.0	0.0	-
56.7	CAL-WL-165	Temp. Easement	PEM	0.0	0.0	0.0	-
57.3	CAL-WL-168	Access Road	PFO	0.0	0.0	0.0	0.0
57.4	CAL-WL-169	Access Road	PFO	0.0	0.1	0.1	0.1
57.4	CAL-WL-169	Access Road	PFO	0.0	0.1	0.1	0.1
57.9	CAL-WL-170	Temp. Easement	PFO	0.0	0.0	0.0	-
58.1	CAL-WL-171	Perm. Easement	PFO	70.9	0.1	0.1	0.1
58.1	CAL-WL-171	Temp. Easement	PFO	0.0	0.1	0.0	-
58.1	CAL-WL-171	Temp. Easement	PFO	0.0	0.0	0.0	-
58.5	CAL-WL-172	Perm. Easement	PFO	0.0	0.0	0.0	0.0
58.5	CAL-WL-172	Temp. Easement	PFO	0.0	0.1	0.0	-
58.5	CAL-WL-172	Perm. Easement	PFO	0.0	0.0	0.0	0.0
58.5	CAL-WL-172	Temp. Easement	PFO	0.0	0.1	0.0	-
58.6	CAL-WL-242	Contractor Yd	PEM	0.0	2.5	0.0	-
58.8	CAL-WL-173	Access Road	PEM	0.0	0.0	0.0	-
58.8	CAL-WL-243	Contractor Yd	PEM	0.0	0.5	0.0	-
59.1	CAL-WL-174	ATWS	PFO	0.0	0.1	0.0	-
59.1	CAL-WL-174	Perm. Easement	PEM	171.1	0.1	0.1	-
59.1	CAL-WL-174	Temp. Easement	PEM	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
59.1	CAL-WL-174	Temp. Easement	PFO	0.0	0.2	0.0	-
59.2	CAL-WL-174	Perm. Easement	PFO	0.0	0.0	0.0	-
59.2	CAL-WL-175	Perm. Easement	PEM	307.0	0.2	0.2	-
59.2	CAL-WL-175	Temp. Easement	PFO	0.0	0.3	0.0	-
59.3	CAL-WL-175	Temp. Easement	PEM	0.0	0.1	0.0	-
59.3	CAL-WL-175	Perm. Easement	PFO	0.0	0.0	0.0	0.0
59.3	CAL-WL-176	Perm. Easement	PEM	1,429.1	0.7	0.7	-
59.5	CAL-WL-176	Temp. Easement	PEM	0.0	0.8	0.0	-
59.5	CAL-WL-176	Temp. Easement	PFO	0.0	2.0	0.0	-
59.6	CAL-WL-176	Perm. Easement	PFO	68.2	0.8	0.8	0.8
59.6	CAL-WL-176	Perm. Easement	PFO	68.2	0.1	0.1	0.1
59.6	CAL-WL-176	Temp. Easement	PEM	0.0	0.1	0.0	-
59.7	CAL-WL-176	ATWS	PFO	0.0	0.6	0.0	-
59.7	CAL-WL-176	ATWS	PFO	0.0	0.3	0.0	-
59.7	CAL-WL-176	Perm. Easement	PEM	68.2	0.1	0.1	-
59.7	CAL-WL-176	Temp. Easement	PFO	0.0	0.2	0.0	-
59.7	CAL-WL-176	Temp. Easement	PEM	0.0	0.0	0.0	-
59.7	CAL-WL-176	Access Road	PEM	0.0	0.3	0.3	-
60.0	CAL-WL-179	ATWS	PEM	0.0	0.3	0.0	-
60.0	CAL-WL-179	Access Road	PEM	0.0	0.6	0.6	-
60.0	CAL-WL-179	ATWS	PFO	0.0	0.4	0.0	-
60.0	CAL-WL-179	ATWS	PFO	0.0	0.4	0.0	-
60.1	CAL-WL-181	ATWS	PEM	0.0	0.2	0.0	-
60.2	CAL-WL-182	ATWS	PFO	0.0	0.0	0.0	-
60.2	CAL-WL-183	Perm. Easement	PEM	155.8	0.1	0.1	-
60.2	CAL-WL-183	Perm. Easement	PFO	0.0	0.1	0.1	0.1
60.2	CAL-WL-183	Temp. Easement	PFO	0.0	0.1	0.0	-
60.3	CAL-WL-183	ATWS	PFO	0.0	0.0	0.0	-
60.3	CAL-WL-183	Perm. Easement	PEM	87.5	0.0	0.0	-
60.3	CAL-WL-183	Temp. Easement	PEM	0.0	0.1	0.0	-
60.3	CAL-WL-183	Perm. Easement	PFO	0.0	0.0	0.0	0.0
60.3	CAL-WL-184	Temp. Easement	PFO	0.0	0.0	0.0	-
60.3	CAL-WL-184	Perm. Easement	PEM	28.0	0.1	0.1	-
60.3	CAL-WL-184	Perm. Easement	PFO	17.8	0.0	0.0	0.0
60.3	CAL-WL-184	Temp. Easement	PFO	0.0	0.0	0.0	-
60.3	CAL-WL-178	Perm. Easement	PEM	28.0	0.0	0.0	-
60.3	CAL-WL-184	Perm. Easement	PFO	54.6	0.0	0.0	0.0
60.3	CAL-WL-184	Temp. Easement	PFO	0.0	0.0	0.0	-
60.3	CAL-WL-184	Perm. Easement	PFO	108.4	0.0	0.0	0.0
60.4	CAL-WL-184	Perm. Easement	PFO	113.0	0.1	0.1	0.1
60.4	CAL-WL-184	Temp. Easement	PFO	0.0	0.1	0.0	-
60.4	CAL-WL-184	Temp. Easement	PEM	0.0	0.2	0.0	-
60.4	CAL-WL-184	Perm. Easement	PFO	25.5	0.0	0.0	0.0
60.4	CAL-WL-184	Perm. Easement	PEM	0.0	0.0	0.0	-
60.4	CAL-WL-184	Temp. Easement	PEM	0.0	0.2	0.0	-
60.5	CAL-WL-184	Perm. Easement	PEM	58.1	0.1	0.1	-
60.5	CAL-WL-185	Perm. Easement	PEM	278.5	0.2	0.2	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
60.5	CAL-WL-185	Temp. Easement	PEM	0.0	0.0	0.0	-
60.5	CAL-WL-185	Temp. Easement	PEM	0.0	0.2	0.0	-
60.8	CAL-WL-187	ATWS	PFO	0.0	0.1	0.0	-
61.7	CAL-WL-188	Temp. Easement	PEM	0.0	0.8	0.0	-
61.7	CAL-WL-188	Perm. Easement	PEM	293.1	0.1	0.1	-
61.8	CAL-WL-188	Temp. Easement	PFO	0.0	0.4	0.0	-
61.8	CAL-WL-188	Perm. Easement	PFO	293.1	0.3	0.3	0.3
61.9	CAL-WL-188	Perm. Easement	PEM	300.2	0.1	0.1	-
61.9	CAL-WL-188	Perm. Easement	PFO	0.0	0.1	0.1	0.1
61.9	CAL-WL-188	Temp. Easement	PFO	0.0	0.3	0.0	-
61.9	CAL-WL-188	ATWS	PFO	0.0	0.2	0.0	-
61.9	CAL-WL-189	Perm. Easement	PEM	638.1	0.2	0.2	-
61.9	CAL-WL-189	Perm. Easement	PFO	638.1	0.1	0.1	0.1
62.0	CAL-WL-189	ATWS	PFO	0.0	0.1	0.0	-
62.0	CAL-WL-189	Perm. Easement	PFO	0.0	0.0	0.0	-
62.0	CAL-WL-189	Temp. Easement	PFO	0.0	0.6	0.0	-
62.1	CAL-WL-189	Perm. Easement	PFO	0.0	0.1	0.1	0.1
62.1	CAL-WL-189	Temp. Easement	PEM	0.0	0.3	0.0	-
62.1	CAL-WL-190	Perm. Easement	PFO	125.7	0.1	0.1	0.1
62.1	CAL-WL-190	Perm. Easement	PEM	0.0	0.0	0.0	-
62.1	CAL-WL-190	Temp. Easement	PFO	0.0	0.2	0.0	-
62.1	CAL-WL-190	Temp. Easement	PEM	0.0	0.1	0.0	-
62.3	CAL-WL-191	Temp. Easement	PFO	0.0	0.2	0.0	-
62.3	CAL-WL-191	Perm. Easement	PFO	79.6	0.1	0.1	0.1
62.3	CAL-WL-191	Temp. Easement	PFO	0.0	0.0	0.0	-
62.4	CAL-WL-192	Perm. Easement	PSS	165.9	0.1	0.1	-
62.4	CAL-WL-192	Temp. Easement	PSS	0.0	0.1	0.0	-
62.4	CAL-WL-192	Temp. Easement	PEM	0.0	0.1	0.0	-
62.4	CAL-WL-193	Perm. Easement	PFO	41.1	0.0	0.0	0.0
62.4	CAL-WL-193	Perm. Easement	PEM	0.0	0.0	0.0	-
62.4	CAL-WL-193	Temp. Easement	PFO	0.0	0.1	0.0	-
62.4	CAL-WL-193	Temp. Easement	PEM	0.0	0.0	0.0	-
62.7	CAL-WL-194	Perm. Easement	PEM	12.2	0.0	0.0	-
62.7	CAL-WL-194	Temp. Easement	PSS	0.0	0.1	0.0	-
62.7	CAL-WL-194	Temp. Easement	PEM	0.0	0.0	0.0	-
62.7	CAL-WL-194	Perm. Easement	PSS	12.2	0.1	0.1	-
62.7	CAL-WL-194	ATWS	PSS	0.0	0.0	0.0	-
62.8	CAL-WL-195	Perm. Easement	PEM	117.5	0.0	0.0	-
62.8	CAL-WL-195	Perm. Easement	PSS	117.5	0.1	0.1	-
62.8	CAL-WL-195	Temp. Easement	PEM	0.0	0.1	0.0	-
62.8	CAL-WL-195	Temp. Easement	PSS	0.0	0.0	0.0	-
62.8	CAL-WL-195	Temp. Easement	PSS	0.0	0.0	0.0	-
62.8	CAL-WL-196	ATWS	PFO	0.0	0.1	0.0	-
62.8	CAL-WL-196	Perm. Easement	PFO	0.0	0.1	0.1	0.1
62.8	CAL-WL-196	Temp. Easement	PFO	0.0	0.2	0.0	-
62.9	CAL-WL-197	Perm. Easement	PEM	0.0	0.0	0.0	-
62.9	CAL-WL-197	Perm. Easement	PFO	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
62.9	CAL-WL-197	Temp. Easement	PFO	0.0	0.0	0.0	-
62.9	CAL-WL-198	Perm. Easement	PFO	0.0	0.0	0.0	0.0
62.9	CAL-WL-198	Perm. Easement	PEM	0.0	0.0	0.0	-
62.9	CAL-WL-198	Temp. Easement	PEM	0.0	0.0	0.0	-
62.9	CAL-WL-198	ATWS	PFO	0.0	0.1	0.0	-
62.9	CAL-WL-198	Temp. Easement	PFO	0.0	0.2	0.0	-
63.0	CAL-WL-198	Perm. Easement	PFO	0.0	0.0	0.0	-
63.0	CAL-WL-199	ATWS	PFO	0.0	0.2	0.0	-
63.0	CAL-WL-199	Perm. Easement	PFO	0.0	0.0	0.0	0.0
63.0	CAL-WL-199	Temp. Easement	PFO	0.0	0.7	0.0	-
63.1	CAL-WL-199	Perm. Easement	PFO	146.3	0.1	0.1	0.1
63.1	CAL-WL-199	Temp. Easement	PFO	0.0	0.0	0.0	-
63.1	CAL-WL-199	Perm. Easement	PFO	10.4	0.1	0.1	0.1
63.1	CAL-WL-199	Perm. Easement	PEM	10.4	0.0	0.0	-
63.1	CAL-WL-199	Temp. Easement	PEM	0.0	0.1	0.0	-
63.1	CAL-WL-199	Perm. Easement	PEM	30.8	0.0	0.0	-
63.1	CAL-WL-199	Perm. Easement	PFO	30.8	0.0	0.0	0.0
63.1	CAL-WL-199	Temp. Easement	PEM	0.0	0.0	0.0	-
63.1	CAL-WL-199	Temp. Easement	PFO	0.0	0.0	0.0	-
63.1	CAL-WL-200	Perm. Easement	PFO	133.1	0.1	0.1	0.1
63.1	CAL-WL-200	Perm. Easement	PEM	0.0	0.0	0.0	-
63.1	CAL-WL-200	Temp. Easement	PEM	0.0	0.0	0.0	-
63.2	CAL-WL-200	Temp. Easement	PFO	0.0	0.2	0.0	-
63.2	CAL-WL-201	Perm. Easement	PFO	73.8	0.1	0.1	0.1
63.2	CAL-WL-201	Temp. Easement	PFO	0.0	0.0	0.0	-
63.2	CAL-WL-201	Temp. Easement	PEM	0.0	0.0	0.0	-
63.3	CAL-WL-202	Perm. Easement	PFO	544.9	0.4	0.4	0.4
63.3	CAL-WL-202	Temp. Easement	PFO	0.0	0.0	0.0	-
63.3	CAL-WL-202	Temp. Easement	PFO	0.0	0.6	0.0	-
63.4	CAL-WL-202	Temp. Easement	PEM	0.0	0.2	0.0	-
63.4	CAL-WL-202	Perm. Easement	PEM	0.0	0.0	0.0	-
63.5	CAL-WL-203	Perm. Easement	PFO	39.8	0.0	0.0	0.0
63.5	CAL-WL-203	Temp. Easement	PFO	0.0	0.0	0.0	-
63.5	CAL-WL-203	Perm. Easement	PEM	7.7	0.0	0.0	-
63.5	CAL-WL-203	Temp. Easement	PEM	0.0	0.0	0.0	-
63.5	CAL-WL-203	Temp. Easement	PFO	0.0	0.4	0.0	-
63.6	CAL-WL-203	Perm. Easement	PFO	7.7	0.1	0.1	0.1
63.7	CAL-WL-204	Perm. Easement	PFO	164.9	0.1	0.1	0.1
63.7	CAL-WL-204	Perm. Easement	PEM	164.9	0.0	0.0	-
63.7	CAL-WL-204	Temp. Easement	PFO	0.0	0.1	0.0	-
63.7	CAL-WL-204	Temp. Easement	PEM	0.0	0.1	0.0	-
63.8	CAL-WL-205	Access Road	PFO	0.0	0.1	0.0	-
63.8	CAL-WL-205	Temp. Easement	PEM	0.0	0.0	0.0	-
63.8	CAL-WL-205	Perm. Easement	PEM	33.2	0.0	0.0	-
63.8	CAL-WL-205	Perm. Easement	PFO	0.0	0.0	0.0	0.0
63.8	CAL-WL-205	Temp. Easement	PFO	0.0	0.2	0.0	-
63.8	CAL-WL-205	ATWS	PFO	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
63.8	CAL-WL-205	Perm. Easement	PFO	0.0	0.0	0.0	-
63.8	CAL-WL-205	Perm. Easement	PEM	37.4	0.0	0.0	-
63.8	CAL-WL-205	Temp. Easement	PEM	0.0	0.0	0.0	-
63.8	CAL-WL-205	Temp. Easement	PEM	0.0	0.0	0.0	-
63.8	CAL-WL-206	ATWS	PSS	0.0	0.1	0.0	-
63.8	CAL-WL-206	Temp. Easement	PSS	0.0	0.0	0.0	-
64.5	CAL-WL-210	Perm. Easement	PEM	10.2	0.0	0.0	-
64.5	CAL-WL-210	Temp. Easement	PEM	0.0	0.0	0.0	-
65.6	CAL-WL-214	Temp. Easement	PFO	0.0	0.0	0.0	-
65.6	CAL-WL-214	ATWS	PFO	0.0	0.0	0.0	-
65.6	CAL-WL-214	ATWS	PFO	0.0	0.0	0.0	-
65.6	CAL-WL-214	Perm. Easement	PFO	31.0	0.1	0.1	0.1
65.6	CAL-WL-214	Temp. Easement	PFO	0.0	0.1	0.0	-
65.7	CAL-WL-215	Perm. Easement	PFO	0.0	0.0	0.0	0.0
65.7	CAL-WL-215	Temp. Easement	PFO	0.0	0.0	0.0	-
65.8	CAL-WL-216	Perm. Easement	PEM	21.2	0.0	0.0	-
65.8	CAL-WL-216	Temp. Easement	PEM	0.0	0.1	0.0	-
65.8	CAL-WL-216	Temp. Easement	PEM	0.0	0.0	0.0	-
65.8	CAL-WL-216	Access Road	PEM	0.0	0.1	0.0	-
65.9	CAL-WL-217	Access Road	PEM	0.0	0.1	0.0	-
65.9	CAL-WL-217	Perm. Easement	PEM	151.6	0.1	0.1	-
65.9	CAL-WL-217	Temp. Easement	PFO	0.0	0.2	0.0	-
65.9	CAL-WL-217	Temp. Easement	PEM	0.0	0.1	0.0	-
65.9	CAL-WL-217	Perm. Easement	PFO	0.0	0.1	0.1	0.1
66.1	CAL-WL-229	Access Road	PEM	0.0	0.0	0.0	-
66.1	CAL-WL-218	ATWS	PFO	0.0	0.3	0.0	-
66.1	CAL-WL-218	Temp. Easement	PFO	0.0	0.1	0.0	-
66.1	CAL-WL-218	Temp. Easement	PEM	0.0	0.0	0.0	-
66.1	CAL-WL-218	Perm. Easement	PFO	0.0	0.0	0.0	0.0
66.1	CAL-WL-218	ATWS	PEM	0.0	0.0	0.0	-
66.1	CAL-WL-218	Perm. Easement	PEM	17.5	0.1	0.1	-
66.1	CAL-WL-218	Temp. Easement	PEM	0.0	0.1	0.0	-
66.1	CAL-WL-218	Access Road	PFO	0.0	0.0	0.0	-
66.2	CAL-WL-219	Access Road	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-219	ATWS	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-219	Perm. Easement	PEM	14.2	0.0	0.0	-
66.2	CAL-WL-219	Temp. Easement	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-219	Temp. Easement	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-224	Access Road	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-225	Access Road	PEM	0.0	0.2	0.0	-
66.2	CAL-WL-226	Access Road	PEM	0.0	0.0	0.0	-
66.2	CAL-WL-226	Access Road	PEM	0.0	0.1	0.0	-
66.2	CAL-WL-226	Access Road	PEM	0.0	0.1	0.0	-
66.2	CAL-WL-226	Access Road	PEM	0.0	0.0	0.0	-
66.4	CAL-WL-220	ATWS	PFO	0.0	0.0	0.0	-
66.4	CAL-WL-220	Temp. Easement	PFO	0.0	0.1	0.0	-
66.4	CAL-WL-220	Temp. Easement	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
66.4	CAL-WL-220	Perm. Easement	PEM	19.9	0.1	0.1	-
66.4	CAL-WL-220	Temp. Easement	PFO	0.0	0.0	0.0	-
66.4	CAL-WL-220	Temp. Easement	PEM	0.0	0.0	0.0	-
66.4	CAL-WL-220	Temp. Easement	PEM	0.0	0.0	0.0	-
66.4	CAL-WL-221	Perm. Easement	PEM	19.6	0.0	0.0	-
66.4	CAL-WL-221	Temp. Easement	PFO	0.0	0.0	0.0	-
66.4	CAL-WL-221	Temp. Easement	PEM	0.0	0.0	0.0	-
66.4	CAL-WL-221	Temp. Easement	PEM	0.0	0.0	0.0	-
66.4	CAL-WL-222	Perm. Easement	PEM	10.4	0.0	0.0	-
66.4	CAL-WL-222	Temp. Easement	PEM	0.0	0.0	0.0	-
66.5	CAL-WL-222	Temp. Easement	PFO	0.0	0.1	0.0	-
66.5	CAL-WL-222	Temp. Easement	PEM	0.0	0.0	0.0	-
67.0	CAL-WL-223	Perm. Easement	PEM	83.2	0.1	0.1	-
67.0	CAL-WL-223	Temp. Easement	PEM	0.0	0.0	0.0	-
67.1	CAL-WL-223	Temp. Easement	PFO	0.0	0.7	0.0	-
67.1	CAL-WL-223	Perm. Easement	PFO	0.0	0.2	0.2	0.2
67.5	BEA-WL-002	Perm. Easement	PEM	41.3	0.6	0.6	-
67.5	BEA-WL-002	Temp. Easement	PEM	0.0	0.0	0.0	-
67.6	BEA-WL-002	Temp. Easement	PEM	0.0	0.8	0.0	-
67.6	BEA-WL-002	Temp. Easement	PEM	0.0	0.2	0.0	-
67.6	BEA-WL-002	Temp. Easement	PEM	0.0	0.1	0.0	-
67.6	BEA-WL-002	Temp. Easement	PSS	0.0	0.2	0.0	-
67.6	BEA-WL-002	Perm. Easement	PSS	0.0	0.1	0.1	-
67.7	BEA-WL-002	Temp. Easement	PEM	0.0	0.0	0.0	-
67.7	BEA-WL-002	Perm. Easement	PEM	0.0	0.0	0.0	-
67.7	BEA-WL-002	Perm. Easement	PEM	36.0	0.0	0.0	-
67.7	BEA-WL-002	Temp. Easement	PEM	0.0	0.0	0.0	-
67.7	BEA-WL-003	Perm. Easement	PSS	0.0	0.0	0.0	-
67.7	BEA-WL-003	Temp. Easement	PSS	0.0	0.0	0.0	-
67.8	BEA-WL-004	Perm. Easement	PSS	0.0	0.0	0.0	-
67.8	BEA-WL-004	Perm. Easement	PEM	51.3	0.0	0.0	-
67.8	BEA-WL-004	Temp. Easement	PSS	0.0	0.1	0.0	-
67.8	BEA-WL-004	Temp. Easement	PEM	0.0	0.0	0.0	-
67.8	BEA-WL-004	Temp. Easement	PEM	0.0	0.0	0.0	-
67.8	BEA-WL-004	Access Road	PSS	0.0	0.0	0.0	-
68.0	BEA-WL-057	Access Road	PEM	0.0	0.0	0.0	-
68.0	BEA-WL-007	Perm. Easement	PEM	30.0	0.0	0.0	-
68.0	BEA-WL-007	Temp. Easement	PFO	0.0	0.0	0.0	-
68.0	BEA-WL-007	Perm. Easement	PEM	0.7	0.0	0.0	-
68.0	BEA-WL-007	Temp. Easement	PEM	0.0	0.0	0.0	-
68.0	BEA-WL-008	Temp. Easement	PEM	0.0	0.2	0.0	-
68.0	BEA-WL-008	Perm. Easement	PFO	0.0	0.0	0.0	0.0
68.0	BEA-WL-008	Perm. Easement	PEM	171.4	0.1	0.1	-
68.0	BEA-WL-008	Temp. Easement	PFO	0.0	0.0	0.0	-
68.0	BEA-WL-008	Perm. Easement	PFO	0.0	0.0	0.0	-
68.0	BEA-WL-008	Temp. Easement	PFO	0.0	0.0	0.0	-
68.1	BEA-WL-008	Perm. Easement	PFO	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
68.1	BEA-WL-008	Temp. Easement	PFO	0.0	0.0	0.0	-
68.1	BEA-WL-008	Perm. Easement	PEM	47.1	0.0	0.0	-
68.1	BEA-WL-008	Perm. Easement	PEM	170.7	0.1	0.1	-
68.1	BEA-WL-008	Perm. Easement	PFO	0.0	0.0	0.0	0.0
68.1	BEA-WL-008	Perm. Easement	PFO	0.0	0.1	0.1	0.1
68.2	BEA-WL-008	Temp. Easement	PFO	0.0	0.2	0.0	-
68.2	BEA-WL-008	Temp. Easement	PEM	0.0	0.1	0.0	-
68.2	BEA-WL-008	Access Road	PEM	0.0	0.0	0.0	-
68.2	BEA-WL-008	ATWS	PFO	0.0	0.1	0.0	-
68.2	BEA-WL-008	Temp. Easement	PFO	0.0	0.0	0.0	-
68.9	BEA-WL-009	Temp. Easement	PEM	0.0	0.0	0.0	-
68.9	BEA-WL-009	Perm. Easement	PEM	9.2	0.0	0.0	-
68.9	BEA-WL-010	Temp. Easement	PFO	0.0	0.2	0.0	-
68.9	BEA-WL-009	Temp. Easement	PEM	0.0	0.0	0.0	-
69.0	BEA-WL-010	Perm. Easement	PFO	0.0	0.0	0.0	0.0
69.0	BEA-WL-011	Perm. Easement	PEM	308.2	0.2	0.2	-
69.0	BEA-WL-011	Temp. Easement	PEM	0.0	0.2	0.0	-
69.1	BEA-WL-011	Temp. Easement	PEM	0.0	0.2	0.0	-
69.3	BEA-WL-012	Access Road	PSS	0.0	0.0	0.0	-
69.3	BEA-WL-012	Perm. Easement	PEM	1,062.3	0.7	0.7	-
69.3	BEA-WL-012	Temp. Easement	PSS	0.0	1.0	0.0	-
69.5	BEA-WL-012	Perm. Easement	PSS	0.0	0.2	0.2	-
69.5	BEA-WL-012	Temp. Easement	PEM	0.0	0.5	0.0	-
69.6	BEA-WL-013	Perm. Easement	PEM	774.5	0.5	0.5	-
69.6	BEA-WL-013	Perm. Easement	PFO	0.0	0.1	0.1	0.1
69.7	BEA-WL-013	Temp. Easement	PFO	0.0	0.9	0.0	-
69.7	BEA-WL-013	Temp. Easement	PEM	0.0	0.0	0.0	-
69.7	BEA-WL-013	Temp. Easement	PEM	0.0	0.4	0.0	-
69.7	BEA-WL-013	Perm. Easement	PFO	129.9	0.2	0.2	0.2
69.7	BEA-WL-013	Temp. Easement	PFO	0.0	0.1	0.0	-
69.7	BEA-WL-013	ATWS	PFO	0.0	0.1	0.0	-
69.8	BEA-WL-012	ATWS	PFO	0.0	0.1	0.0	-
69.8	BEA-WL-012	Perm. Easement	PFO	129.9	0.1	0.1	0.1
69.8	BEA-WL-012	Temp. Easement	PFO	0.0	0.1	0.0	-
69.8	BEA-WL-012	Temp. Easement	PFO	0.0	0.1	0.0	-
69.8	BEA-WL-014	ATWS	PFO	0.0	0.2	0.0	-
69.8	BEA-WL-014	Perm. Easement	PFO	208.0	0.2	0.2	0.2
69.8	BEA-WL-014	Temp. Easement	PFO	0.0	0.2	0.0	-
69.8	BEA-WL-014	Temp. Easement	PFO	0.0	0.1	0.0	-
70.1	BEA-WL-016	Perm. Easement	PEM	83.9	1.0	1.0	-
70.1	BEA-WL-015	Access Road	PEM	0.0	0.0	0.0	-
70.1	BEA-WL-016	ATWS	PEM	0.0	0.3	0.0	-
70.2	BEA-WL-016	Temp. Easement	PEM	0.0	1.2	0.0	-
70.2	BEA-WL-016	Temp. Easement	PEM	0.0	0.5	0.0	-
70.3	BEA-WL-016	Temp. Easement	PEM	0.0	0.0	0.0	-
70.3	BEA-WL-017	Temp. Easement	PEM	0.0	0.1	0.0	-
70.3	BEA-WL-017	ATWS	PEM	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
70.5	BEA-WL-018	Perm. Easement	PEM	175.6	0.3	0.3	-
70.5	BEA-WL-018	Temp. Easement	PEM	0.0	0.4	0.0	-
70.5	BEA-WL-018	Temp. Easement	PEM	0.0	0.1	0.0	-
70.5	BEA-WL-018	ATWS	PEM	0.0	0.5	0.0	-
70.6	BEA-WL-018	Temp. Easement	PEM	0.0	0.1	0.0	-
70.6	BEA-WL-019	Perm. Easement	PEM	22.2	0.0	0.0	-
70.6	BEA-WL-020	Perm. Easement	PEM	41.9	0.0	0.0	-
70.6	BEA-WL-020	Temp. Easement	PEM	0.0	0.0	0.0	-
70.6	BEA-WL-021	Temp. Easement	PEM	0.0	0.0	0.0	-
70.8	BEA-WL-022	Perm. Easement	PEM	0.0	0.0	0.0	-
70.8	BEA-WL-022	Temp. Easement	PEM	0.0	0.0	0.0	-
70.8	BEA-WL-023	Perm. Easement	PEM	0.0	0.0	0.0	-
70.8	BEA-WL-023	Perm. Easement	PEM	97.6	0.1	0.1	-
70.8	BEA-WL-023	Temp. Easement	PFO	0.0	0.1	0.0	-
70.8	BEA-WL-023	Temp. Easement	PEM	0.0	0.0	0.0	-
70.8	BEA-WL-023	Temp. Easement	PEM	0.0	0.1	0.0	-
70.8	BEA-WL-023	ATWS	PFO	0.0	0.0	0.0	-
70.8	BEA-WL-023	Perm. Easement	PFO	0.0	0.0	0.0	0.0
71.0	BEA-WL-024	Perm. Easement	PEM	43.9	0.1	0.1	-
71.0	BEA-WL-024	Temp. Easement	PEM	0.0	0.1	0.0	-
71.1	BEA-WL-024	Temp. Easement	PEM	0.0	0.0	0.0	-
71.1	BEA-WL-025	Perm. Easement	PEM	6.2	0.0	0.0	-
71.1	BEA-WL-025	Temp. Easement	PEM	0.0	0.0	0.0	-
71.1	BEA-WL-026	Perm. Easement	PEM	779.6	0.9	0.9	-
71.1	BEA-WL-025	Temp. Easement	PEM	0.0	0.0	0.0	-
71.1	BEA-WL-026	ATWS	PEM	0.0	0.2	0.0	-
71.2	BEA-WL-026	ATWS	PEM	0.0	0.2	0.0	-
71.2	BEA-WL-026	Temp. Easement	PEM	0.0	0.5	0.0	-
71.2	BEA-WL-026	Temp. Easement	PEM	0.0	0.4	0.0	-
71.7	BEA-WL-027	Perm. Easement	PEM	194.8	0.1	0.1	-
71.7	BEA-WL-027	Temp. Easement	PEM	0.0	0.1	0.0	-
71.7	BEA-WL-027	Temp. Easement	PEM	0.0	0.1	0.0	-
72.3	BEA-WL-028	Perm. Easement	PEM	458.2	0.5	0.5	-
72.3	BEA-WL-028	Temp. Easement	PEM	0.0	0.1	0.0	-
72.3	BEA-WL-028	Temp. Easement	PEM	0.0	0.1	0.0	-
72.3	BEA-WL-028	Access Road	PEM	0.0	0.0	0.0	-
72.4	BEA-WL-028	Temp. Easement	PEM	0.0	0.1	0.0	-
72.4	BEA-WL-028	Temp. Easement	PEM	0.0	0.0	0.0	-
72.4	BEA-WL-029	Perm. Easement	PEM	133.9	0.1	0.1	-
72.4	BEA-WL-029	Temp. Easement	PEM	0.0	0.1	0.0	-
72.4	BEA-WL-029	Temp. Easement	PEM	0.0	0.1	0.0	-
72.7	BEA-WL-030	Perm. Easement	PEM	12.9	0.0	0.0	-
72.7	BEA-WL-030	Temp. Easement	PEM	0.0	0.0	0.0	-
72.7	BEA-WL-030	Temp. Easement	PEM	0.0	0.0	0.0	-
72.8	BEA-WL-031	ATWS	PEM	0.0	0.0	0.0	-
72.8	BEA-WL-031	Perm. Easement	PEM	14.2	0.0	0.0	-
72.8	BEA-WL-031	Temp. Easement	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
72.8	BEA-WL-031	Temp. Easement	PEM	0.0	0.0	0.0	-
73.0	BEA-WL-032	Perm. Easement	PEM	238.9	0.3	0.3	-
73.0	BEA-WL-032	Temp. Easement	PEM	0.0	0.1	0.0	-
73.0	BEA-WL-032	Temp. Easement	PEM	0.0	0.2	0.0	-
73.2	BEA-WL-033	Perm. Easement	PFO	192.9	0.2	0.2	0.2
73.2	BEA-WL-033	Temp. Easement	PFO	0.0	0.1	0.0	-
73.2	BEA-WL-033	Temp. Easement	PFO	0.0	0.1	0.0	-
73.2	BEA-WL-033	ATWS	PFO	0.0	0.1	0.0	-
73.2	BEA-WL-034	Temp. Easement	PEM	0.0	0.1	0.0	-
73.3	BEA-WL-035	Temp. Easement	PFO	0.0	0.2	0.0	-
73.3	BEA-WL-035	Perm. Easement	PFO	995.4	1.1	1.1	1.1
73.3	BEA-WL-035	Temp. Easement	PFO	0.0	0.7	0.0	-
73.3	BEA-WL-035	ATWS	PFO	0.0	0.2	0.0	-
73.4	BEA-WL-035	Temp. Easement	PEM	0.0	0.3	0.0	-
73.7	BEA-WL-037	Perm. Easement	PFO	52.3	0.1	0.1	0.1
73.7	BEA-WL-037	Temp. Easement	PEM	0.0	0.0	0.0	-
73.7	BEA-WL-037	Temp. Easement	PFO	0.0	0.0	0.0	-
73.7	BEA-WL-037	Temp. Easement	PFO	0.0	0.1	0.0	-
73.8	BEA-WL-037	Temp. Easement	PFO	0.0	0.0	0.0	-
73.8	BEA-WL-037	Perm. Easement	PFO	36.7	0.0	0.0	0.0
73.8	BEA-WL-037	Temp. Easement	PEM	0.0	0.0	0.0	-
73.8	BEA-WL-037	Temp. Easement	PFO	0.0	0.0	0.0	-
73.9	BEA-WL-038	Perm. Easement	PFO	21.2	0.2	0.2	0.2
73.9	BEA-WL-038	Access Road	PEM	0.0	0.1	0.1	-
73.9	BEA-WL-038	Temp. Easement	PEM	0.0	0.0	0.0	-
73.9	BEA-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
74.0	BEA-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
74.0	BEA-WL-038	Temp. Easement	PFO	0.0	0.1	0.0	-
74.0	BEA-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
74.0	BEA-WL-038	Access Road	PEM	0.0	0.1	0.1	-
74.0	BEA-WL-039	Temp. Easement	PFO	0.0	0.1	0.0	-
74.0	BEA-WL-039	Perm. Easement	PFO	138.6	0.2	0.2	0.2
74.0	BEA-WL-039	Temp. Easement	PEM	0.0	0.0	0.0	-
74.0	BEA-WL-039	Temp. Easement	PFO	0.0	0.0	0.0	-
74.1	BEA-WL-040	Perm. Easement	PFO	15.4	0.1	0.1	0.1
74.1	BEA-WL-040	Temp. Easement	PEM	0.0	0.0	0.0	-
74.1	BEA-WL-040	Temp. Easement	PFO	0.0	0.0	0.0	-
74.1	BEA-WL-040	Temp. Easement	PFO	0.0	0.0	0.0	-
74.1	BEA-WL-040	Temp. Easement	PFO	0.0	0.0	0.0	-
74.1	BEA-WL-041	Perm. Easement	PFO	126.1	0.2	0.2	0.2
74.1	BEA-WL-041	Temp. Easement	PFO	0.0	0.1	0.0	-
74.1	BEA-WL-041	Temp. Easement	PEM	0.0	0.0	0.0	-
74.1	BEA-WL-041	Temp. Easement	PFO	0.0	0.0	0.0	-
74.2	BEA-WL-042	Perm. Easement	PFO	188.2	0.2	0.2	0.2
74.2	BEA-WL-042	Temp. Easement	PFO	0.0	0.1	0.0	-
74.2	BEA-WL-042	Temp. Easement	PEM	0.0	0.1	0.0	-
74.2	BEA-WL-042	Temp. Easement	PFO	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
74.3	BEA-WL-042	Perm. Easement	PFO	27.3	0.0	0.0	0.0
74.3	BEA-WL-042	Temp. Easement	PFO	0.0	0.0	0.0	-
74.3	BEA-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
74.3	BEA-WL-043	Perm. Easement	PFO	246.8	0.7	0.7	0.7
74.3	BEA-WL-043	Temp. Easement	PFO	0.0	0.4	0.0	-
74.3	BEA-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
74.4	BEA-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
74.4	BEA-WL-043	Temp. Easement	PEM	0.0	0.2	0.0	-
74.4	BEA-WL-043	Perm. Easement	PFO	12.9	0.0	0.0	0.0
74.4	BEA-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
74.5	BEA-WL-047	Perm. Easement	PFO	162.4	0.2	0.2	0.2
74.5	BEA-WL-047	Temp. Easement	PFO	0.0	0.0	0.0	-
74.6	BEA-WL-047	Perm. Easement	PFO	118.2	0.2	0.2	0.2
74.6	BEA-WL-047	Temp. Easement	PEM	0.0	0.0	0.0	-
74.6	BEA-WL-047	Temp. Easement	PFO	0.0	0.0	0.0	-
74.6	BEA-WL-047	Temp. Easement	PFO	0.0	0.3	0.0	-
74.6	BEA-WL-047	Temp. Easement	PEM	0.0	0.1	0.0	-
74.6	BEA-WL-048	Access Road	PEM	0.0	0.0	0.0	-
74.7	BEA-WL-049	Access Road	PEM	0.0	0.2	0.0	-
74.8	BEA-WL-051	Perm. Easement	PSS	84.6	1.8	1.8	-
74.8	BEA-WL-051	Temp. Easement	PSS	0.0	0.2	0.0	-
74.9	BEA-WL-051	Temp. Easement	PSS	0.0	0.7	0.0	-
74.9	BEA-WL-051	Temp. Easement	PEM	0.0	0.1	0.0	-
74.9	BEA-WL-051	Temp. Easement	PSS	0.0	0.1	0.0	-
75.0	BEA-WL-051	Temp. Easement	PSS	0.0	0.3	0.0	-
75.0	BEA-WL-051	Temp. Easement	PSS	0.0	0.0	0.0	-
75.0	BEA-WL-051	Perm. Easement	PSS	0.0	0.0	0.0	-
75.0	BEA-WL-051	Temp. Easement	PSS	0.0	0.0	0.0	-
75.1	BEA-WL-051	Temp. Easement	PEM	0.0	0.1	0.0	-
75.1	BEA-WL-051	Temp. Easement	PSS	0.0	0.1	0.0	-
75.1	BEA-WL-052	Perm. Easement	PEM	42.5	0.0	0.0	-
75.1	BEA-WL-052	Temp. Easement	PEM	0.0	0.0	0.0	-
75.1	BEA-WL-052	Perm. Easement	PEM	163.9	0.1	0.1	-
75.1	BEA-WL-052	Temp. Easement	PEM	0.0	0.0	0.0	-
75.1	BEA-WL-052	Temp. Easement	PEM	0.0	0.1	0.0	-
75.2	BEA-WL-052	Temp. Easement	PEM	0.0	0.0	0.0	-
75.2	BEA-WL-052	Perm. Easement	PEM	54.4	0.1	0.1	-
76.0	BEA-WL-054	ATWS	PEM	0.0	0.0	0.0	-
76.0	BEA-WL-054	Perm. Easement	PEM	37.3	0.0	0.0	-
76.0	BEA-WL-054	Temp. Easement	PEM	0.0	0.0	0.0	-
76.0	BEA-WL-054	Temp. Easement	PEM	0.0	0.0	0.0	-
76.1	BEA-WL-054	Perm. Easement	PEM	23.9	0.0	0.0	-
76.1	BEA-WL-054	Temp. Easement	PEM	0.0	0.0	0.0	-
76.1	BEA-WL-054	ATWS	PEM	0.0	0.0	0.0	-
76.4	BEA-WL-055	Perm. Easement	PEM	15.2	0.0	0.0	-
76.4	BEA-WL-055	Temp. Easement	PEM	0.0	0.0	0.0	-
76.4	BEA-WL-055	ATWS	PEM	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
76.4	BEA-WL-055	ATWS	PEM	0.0	0.1	0.0	-
76.4	BEA-WL-055	Perm. Easement	PEM	461.5	0.5	0.5	-
76.4	BEA-WL-055	Temp. Easement	PEM	0.0	0.2	0.0	-
76.5	BEA-WL-055	Temp. Easement	PEM	0.0	0.4	0.0	-
76.5	BEA-WL-055	Perm. Easement	PSS	461.5	0.3	0.3	-
76.5	BEA-WL-055	Temp. Easement	PSS	0.0	0.0	0.0	-
76.6	BEA-WL-055	Temp. Easement	PSS	0.0	0.0	0.0	-
76.6	BEA-WL-055	ATWS	PSS	0.0	0.0	0.0	-
76.6	BEA-WL-055	Perm. Easement	PSS	267.9	0.2	0.2	-
76.6	BEA-WL-055	Temp. Easement	PSS	0.0	0.2	0.0	-
76.6	BEA-WL-055	Temp. Easement	PSS	0.0	0.2	0.0	-
76.6	BEA-WL-055	ATWS	PSS	0.0	0.1	0.0	-
78.2	ALL-WL-001	Perm. Easement	PEM	54.4	0.0	0.0	-
78.2	ALL-WL-001	Perm. Easement	PFO	0.0	0.1	0.1	0.1
78.2	ALL-WL-001	Temp. Easement	PEM	0.0	0.0	0.0	-
78.2	ALL-WL-001	Temp. Easement	PFO	0.0	0.0	0.0	-
78.4	ALL-WL-002	Perm. Easement	PFO	67.9	0.1	0.1	0.1
78.4	ALL-WL-002	Temp. Easement	PEM	0.0	0.0	0.0	-
78.4	ALL-WL-002	Perm. Easement	PEM	0.0	0.0	0.0	-
78.4	ALL-WL-002	Temp. Easement	PFO	0.0	0.1	0.0	-
78.7	ALL-WL-003	Perm. Easement	PEM	0.0	0.0	0.0	-
78.7	ALL-WL-003	Perm. Easement	PFO	213.7	0.2	0.2	0.2
78.7	ALL-WL-003	Temp. Easement	PFO	0.0	0.2	0.0	-
78.7	ALL-WL-003	Temp. Easement	PEM	0.0	0.1	0.0	-
78.7	ALL-WL-003	ATWS	PFO	0.0	0.1	0.0	-
79.4	ALL-WL-007	ATWS	PFO	0.0	0.0	0.0	-
79.4	ALL-WL-007	Temp. Easement	PFO	0.0	0.0	0.0	-
79.5	ALL-WL-007	Perm. Easement	PFO	25.7	0.0	0.0	0.0
80.6	ALL-WL-008	Perm. Easement	PSS	47.9	0.1	0.1	-
80.6	ALL-WL-008	Temp. Easement	PSS	0.0	0.0	0.0	-
80.6	ALL-WL-008	Temp. Easement	PSS	0.0	0.0	0.0	-
81.1	ALL-WL-009	Perm. Easement	PFO	11.6	0.0	0.0	0.0
81.1	ALL-WL-009	Temp. Easement	PFO	0.0	0.0	0.0	-
81.1	ALL-WL-009	Temp. Easement	PFO	0.0	0.0	0.0	-
81.1	ALL-WL-010	Perm. Easement	PFO	1278.7	1.4	1.4	1.4
81.2	ALL-WL-010	Temp. Easement	PFO	0.0	0.7	0.0	-
81.3	ALL-WL-010	ATWS	PFO	0.0	0.1	0.0	-
81.4	ALL-WL-011	Temp. Easement	PFO	0.0	0.6	0.0	-
81.4	ALL-WL-010	Temp. Easement	PFO	0.0	0.6	0.0	-
81.4	ALL-WL-011	Perm. Easement	PFO	717.6	0.8	0.8	0.8
81.5	ALL-WL-011	ATWS	PFO	0.0	0.2	0.0	-
81.5	ALL-WL-011	Temp. Easement	PEM	0.0	0.0	0.0	-
81.5	ALL-WL-012	Temp. Easement	PFO	0.0	0.1	0.0	-
81.5	ALL-WL-012	Perm. Easement	PFO	0.0	0.0	0.0	0.0
81.6	ALL-WL-013	Perm. Easement	PEM	665.6	0.3	0.3	-
81.6	ALL-WL-012	ATWS	PFO	0.0	0.2	0.0	-
81.6	ALL-WL-013	ATWS	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
81.6	ALL-WL-013	ATWS	PFO	0.0	0.1	0.0	-
81.6	ALL-WL-013	Temp. Easement	PEM	0.0	0.1	0.0	-
81.6	ALL-WL-013	Temp. Easement	PEM	0.0	0.2	0.0	-
81.6	ALL-WL-013	Perm. Easement	PFO	665.6	0.7	0.7	0.7
81.6	ALL-WL-013	Temp. Easement	PFO	0.0	0.3	0.0	-
81.7	ALL-WL-013	ATWS	PFO	0.0	0.1	0.0	-
81.7	ALL-WL-013	Temp. Easement	PFO	0.0	0.3	0.0	-
81.7	ALL-WL-014	Perm. Easement	PFO	858.9	1.0	1.0	1.0
81.7	ALL-WL-014	Temp. Easement	PFO	0.0	0.6	0.0	-
81.9	ALL-WL-014	Temp. Easement	PFO	0.0	0.4	0.0	-
82.1	ALL-WL-015	ATWS	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	ATWS	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Perm. Easement	PFO	14.4	0.0	0.0	0.0
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Perm. Easement	PFO	51.3	0.0	0.0	0.0
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Perm. Easement	PFO	17.7	0.0	0.0	0.0
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.1	0.0	-
82.1	ALL-WL-015	Perm. Easement	PFO	39.4	0.0	0.0	0.0
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Perm. Easement	PFO	86.0	0.2	0.2	0.2
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.1	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.2	ALL-WL-015	Temp. Easement	PFO	0.0	0.0	0.0	-
82.2	ALL-WL-015	Temp. Easement	PFO	0.0	0.2	0.0	-
82.2	ALL-WL-016	Perm. Easement	PFO	15.0	0.0	0.0	0.0
82.2	ALL-WL-016	Temp. Easement	PFO	0.0	0.0	0.0	-
82.2	ALL-WL-017	Perm. Easement	PFO	179.0	0.2	0.2	0.2
82.2	ALL-WL-017	Temp. Easement	PFO	0.0	0.1	0.0	-
82.2	ALL-WL-017	Temp. Easement	PFO	0.0	0.0	0.0	-
82.2	ALL-WL-017	Temp. Easement	PFO	0.0	0.0	0.0	-
82.2	ALL-WL-017	Temp. Easement	PFO	0.0	0.1	0.0	-
82.3	ALL-WL-018	Perm. Easement	PFO	26.6	0.0	0.0	0.0
82.3	ALL-WL-018	Temp. Easement	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-018	Temp. Easement	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-019	ATWS	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-019	Temp. Easement	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-020	Perm. Easement	PFO	79.9	0.1	0.1	0.1
82.3	ALL-WL-020	Temp. Easement	PFO	0.0	0.1	0.0	-
82.3	ALL-WL-020	ATWS	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-020	Temp. Easement	PFO	0.0	0.1	0.0	-
82.3	ALL-WL-020	Temp. Easement	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-021	ATWS	PFO	0.0	0.0	0.0	-
82.3	ALL-WL-022	Perm. Easement	PFO	30.1	0.0	0.0	0.0
82.3	ALL-WL-022	Temp. Easement	PFO	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
82.8	ALL-WL-023	Perm. Easement	PFO	111.3	0.1	0.1	0.1
82.8	ALL-WL-023	Temp. Easement	PFO	0.0	0.1	0.0	-
82.8	ALL-WL-023	Temp. Easement	PFO	0.0	0.0	0.0	-
84.1	ALL-WL-024	Temp. Easement	PFO	0.0	0.8	0.0	-
84.1	ALL-WL-024	Perm. Easement	PEM	0.0	0.0	0.0	-
84.1	ALL-WL-024	Perm. Easement	PFO	1,185.7	1.3	1.3	1.3
84.3	ALL-WL-024	Temp. Easement	PEM	0.0	0.6	0.0	-
84.9	ALL-WL-025	Temp. Easement	PFO	0.0	0.0	0.0	-
84.9	ALL-WL-025	Perm. Easement	PFO	57.6	0.2	0.2	0.2
84.9	ALL-WL-025	Temp. Easement	PEM	0.0	0.1	0.0	-
84.9	ALL-WL-025	Temp. Easement	PFO	0.0	0.2	0.0	-
84.9	ALL-WL-025	Perm. Easement	PEM	57.6	0.0	0.0	-
84.9	ALL-WL-025	ATWS	PFO	0.0	0.1	0.0	-
85.6	ALL-WL-026	Perm. Easement	PEM	15.4	0.2	0.2	-
85.6	ALL-WL-026	Temp. Easement	PEM	0.0	0.2	0.0	-
85.6	ALL-WL-026	Temp. Easement	PEM	0.0	0.1	0.0	-
85.6	ALL-WL-026	Temp. Easement	PFO	0.0	0.2	0.0	-
85.6	ALL-WL-026	Perm. Easement	PFO	15.4	0.3	0.3	0.3
85.6	ALL-WL-027	Temp. Easement	PEM	0.0	0.1	0.0	-
85.6	ALL-WL-027	Perm. Easement	PFO	359.9	0.4	0.4	0.4
85.6	ALL-WL-027	Perm. Easement	PEM	0.0	0.0	0.0	-
85.6	ALL-WL-027	Temp. Easement	PFO	0.0	0.3	0.0	-
85.7	ALL-WL-027	Temp. Easement	PFO	0.0	0.0	0.0	-
85.7	ALL-WL-029	Access Road	PEM	0.0	0.0	0.0	-
85.7	ALL-WL-027	Perm. Easement	PEM	0.0	0.0	0.0	-
85.7	ALL-WL-027	Temp. Easement	PEM	0.0	0.0	0.0	-
85.7	ALL-WL-028	Perm. Easement	PEM	13.9	0.0	0.0	-
85.7	ALL-WL-028	Temp. Easement	PEM	0.0	0.1	0.0	-
85.8	ALL-WL-030	ATWS	PEM	0.0	0.1	0.0	-
85.8	ALL-WL-030	ATWS	PEM	0.0	0.1	0.0	-
85.8	ALL-WL-030	Perm. Easement	PEM	521.8	0.6	0.6	-
85.8	ALL-WL-030	Temp. Easement	PEM	0.0	0.2	0.0	-
85.8	ALL-WL-030	Temp. Easement	PEM	0.0	0.3	0.0	-
85.9	ALL-WL-032	Temp. Easement	PEM	0.0	0.0	0.0	-
85.9	ALL-WL-032	Perm. Easement	PEM	18.5	0.0	0.0	-
85.9	ALL-WL-032	Temp. Easement	PEM	0.0	0.0	0.0	-
85.9	ALL-WL-033	Temp. Easement	PEM	0.0	0.1	0.0	-
85.9	ALL-WL-033	Perm. Easement	PEM	116.8	0.1	0.1	-
85.9	ALL-WL-033	Temp. Easement	PEM	0.0	0.1	0.0	-
85.9	ALL-WL-034	Perm. Easement	PEM	210.7	0.2	0.2	-
86.0	ALL-WL-034	Temp. Easement	PEM	0.0	0.1	0.0	-
86.0	ALL-WL-034	Temp. Easement	PEM	0.0	0.2	0.0	-
86.0	ALL-WL-035	Temp. Easement	PEM	0.0	0.1	0.0	-
86.0	ALL-WL-035	Perm. Easement	PEM	93.9	0.1	0.1	-
86.0	ALL-WL-035	Temp. Easement	PEM	0.0	0.0	0.0	-
86.0	ALL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
86.0	ALL-WL-036	Perm. Easement	PEM	3.0	0.3	0.3	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
86.0	ALL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
86.0	ALL-WL-036	Temp. Easement	PEM	0.0	0.1	0.0	-
86.1	ALL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
86.1	ALL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
86.1	ALL-WL-036	Temp. Easement	PEM	0.0	0.0	0.0	-
86.1	ALL-WL-036	Temp. Easement	PSS	0.0	0.2	0.0	-
86.1	ALL-WL-036	ATWS	PSS	0.0	0.0	0.0	-
86.1	ALL-WL-036	Perm. Easement	PSS	12.2	0.2	0.2	-
86.1	ALL-WL-036	Perm. Easement	PEM	0.0	0.0	0.0	-
86.1	ALL-WL-036	Temp. Easement	PEM	0.0	0.1	0.0	-
86.3	ALL-WL-037	Perm. Easement	PEM	291.0	0.4	0.4	-
86.3	ALL-WL-037	ATWS	PEM	0.0	0.3	0.0	-
86.3	ALL-WL-037	Temp. Easement	PEM	0.0	0.1	0.0	-
86.3	ALL-WL-037	Temp. Easement	PEM	0.0	0.2	0.0	-
86.4	ALL-WL-038	Perm. Easement	PFO	66.5	0.1	0.1	0.1
86.4	ALL-WL-038	Perm. Easement	PEM	0.0	0.0	0.0	-
86.4	ALL-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
86.4	ALL-WL-038	Perm. Easement	PEM	66.5	0.2	0.2	-
86.4	ALL-WL-038	Temp. Easement	PEM	0.0	0.1	0.0	-
86.5	ALL-WL-192	Access Road	PEM	0.0	0.0	0.0	-
86.5	ALL-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
86.5	ALL-WL-038	Temp. Easement	PFO	0.0	0.0	0.0	-
86.5	ALL-WL-038	Perm. Easement	PFO	0.0	0.1	0.1	0.1
86.5	ALL-WL-038	Perm. Easement	PFO	0.0	0.0	0.0	-
86.5	ALL-WL-038	Perm. Easement	PFO	0.0	0.0	0.0	0.0
86.5	ALL-WL-038	Temp. Easement	PFO	0.0	0.1	0.0	-
86.5	ALL-WL-038	Temp. Easement	PEM	0.0	0.2	0.0	-
86.5	ALL-WL-039	Perm. Easement	PFO	157.6	0.2	0.2	0.2
86.5	ALL-WL-039	Perm. Easement	PEM	0.0	0.0	0.0	-
86.5	ALL-WL-039	Temp. Easement	PEM	0.0	0.2	0.0	-
86.5	ALL-WL-039	Perm. Easement	PFO	72.2	0.1	0.1	0.1
86.5	ALL-WL-039	Perm. Easement	PEM	0.0	0.0	0.0	-
86.6	ALL-WL-039	Perm. Easement	PFO	40.3	0.0	0.0	0.0
86.6	ALL-WL-039	Perm. Easement	PEM	0.0	0.0	0.0	-
86.6	ALL-WL-039	Perm. Easement	PEM	0.0	0.0	0.0	-
86.6	ALL-WL-039	Perm. Easement	PFO	220.4	0.2	0.2	0.2
86.6	ALL-WL-039	Temp. Easement	PEM	0.0	0.1	0.0	-
86.6	ALL-WL-039	Temp. Easement	PFO	0.0	0.3	0.0	-
86.6	ALL-WL-039	Temp. Easement	PFO	0.0	0.0	0.0	-
86.6	ALL-WL-039	Temp. Easement	PFO	0.0	0.0	0.0	-
86.7	ALL-WL-040	Perm. Easement	PFO	121.4	1.3	1.3	1.3
86.7	ALL-WL-040	Perm. Easement	PEM	0.0	0.0	0.0	-
86.7	ALL-WL-040	Temp. Easement	PEM	0.0	0.5	0.0	-
86.7	ALL-WL-040	Temp. Easement	PFO	0.0	0.1	0.0	-
86.7	ALL-WL-040	Temp. Easement	PFO	0.0	0.3	0.0	-
86.7	ALL-WL-040	Temp. Easement	PFO	0.0	0.1	0.0	-
86.8	ALL-WL-191	Access Road	PEM	0.0	0.1	0.1	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
86.8	ALL-WL-040	Temp. Easement	PFO	0.0	0.3	0.0	-
86.9	ALL-WL-040	Temp. Easement	PFO	0.0	0.0	0.0	-
86.9	ALL-WL-041	Perm. Easement	PEM	18.0	0.0	0.0	-
86.9	ALL-WL-041	Temp. Easement	PEM	0.0	0.0	0.0	-
86.9	ALL-WL-043	Perm. Easement	PFO	17.9	0.0	0.0	0.0
86.9	ALL-WL-042	Temp. Easement	PFO	0.0	0.0	0.0	-
86.9	ALL-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
86.9	ALL-WL-043	Temp. Easement	PFO	0.0	0.0	0.0	-
87.1	ALL-WL-044	Perm. Easement	PFO	291.3	0.3	0.3	0.3
87.1	ALL-WL-044	Temp. Easement	PFO	0.0	0.1	0.0	-
87.1	ALL-WL-044	Access Road	PFO	0.0	0.0	0.0	0.0
87.1	ALL-WL-044	Access Road	PFO	0.0	0.2	0.2	0.2
87.1	ALL-WL-044	Access Road	PEM	0.0	0.1	0.1	-
87.1	ALL-WL-044	ATWS	PFO	0.0	0.1	0.0	-
87.1	ALL-WL-044	Temp. Easement	PFO	0.0	0.2	0.0	-
87.1	ALL-WL-044	Temp. Easement	PFO	0.0	0.1	0.0	-
87.4	ALL-WL-045	Perm. Easement	PEM	54.5	0.1	0.1	-
87.4	ALL-WL-045	ATWS	PFO	0.0	0.2	0.0	-
87.4	ALL-WL-045	Temp. Easement	PFO	0.0	0.3	0.0	-
87.5	ALL-WL-045	Perm. Easement	PFO	54.5	0.2	0.2	0.2
87.5	ALL-WL-045	Temp. Easement	PEM	0.0	0.1	0.0	-
87.5	ALL-WL-045	Temp. Easement	PEM	0.0	0.1	0.0	-
87.5	ALL-WL-045	ATWS	PEM	0.0	0.1	0.0	-
87.5	ALL-WL-045	Perm. Easement	PEM	252.9	0.2	0.2	-
87.5	ALL-WL-045	Perm. Easement	PFO	0.0	0.1	0.1	0.1
87.5	ALL-WL-045	Temp. Easement	PEM	0.0	0.1	0.0	-
87.6	ALL-WL-045	Temp. Easement	PFO	0.0	0.3	0.0	-
88.1	ALL-WL-047	Temp. Easement	PEM	0.0	0.1	0.0	-
88.1	ALL-WL-047	Perm. Easement	PEM	82.6	0.1	0.1	-
88.1	ALL-WL-047	Temp. Easement	PEM	0.0	0.0	0.0	-
88.2	ALL-WL-048	Perm. Easement	PEM	41.9	0.1	0.1	-
88.2	ALL-WL-048	Temp. Easement	PEM	0.0	0.1	0.0	-
88.2	ALL-WL-049	Perm. Easement	PFO	196.9	0.3	0.3	0.3
88.2	ALL-WL-049	Perm. Easement	PEM	196.9	0.1	0.1	-
88.2	ALL-WL-049	Temp. Easement	PFO	0.0	0.2	0.0	-
88.3	ALL-WL-049	Temp. Easement	PEM	0.0	0.5	0.0	-
88.3	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.3	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.3	ALL-WL-049	Perm. Easement	PEM	49.4	0.1	0.1	-
88.4	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.4	ALL-WL-049	Perm. Easement	PEM	9.4	0.0	0.0	-
88.4	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.4	ALL-WL-050	Temp. Easement	PFO	0.0	0.0	0.0	-
88.4	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.4	ALL-WL-049	Perm. Easement	PEM	0.0	0.0	0.0	-
88.4	ALL-WL-051	Perm. Easement	PFO	76.0	0.2	0.2	0.2
88.4	ALL-WL-051	Temp. Easement	PEM	0.0	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
88.4	ALL-WL-051	Temp. Easement	PEM	0.0	0.2	0.0	-
88.4	ALL-WL-051	Temp. Easement	PFO	0.0	0.2	0.0	-
88.5	ALL-WL-051	Perm. Easement	PFO	25.7	0.1	0.1	0.1
88.5	ALL-WL-051	Temp. Easement	PFO	0.0	0.0	0.0	-
88.5	ALL-WL-052	Perm. Easement	PFO	0.4	0.0	0.0	0.0
88.5	ALL-WL-052	Temp. Easement	PFO	0.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PFO	133.6	0.1	0.1	0.1
88.6	ALL-WL-052	Temp. Easement	PFO	0.0	0.0	0.0	-
88.6	ALL-WL-052	Temp. Easement	PFO	0.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PFO	0.0	0.0	0.0	-
88.6	ALL-WL-052	Temp. Easement	PFO	0.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PFO	79.3	0.1	0.1	0.1
88.6	ALL-WL-052	Perm. Easement	PEM	0.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PEM	17.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PEM	0.0	0.0	0.0	-
88.6	ALL-WL-052	Perm. Easement	PFO	145.7	0.2	0.2	0.2
88.6	ALL-WL-052	Temp. Easement	PEM	0.0	0.3	0.0	-
88.7	ALL-WL-052	Perm. Easement	PEM	0.0	0.0	0.0	-
88.7	ALL-WL-052	Temp. Easement	PFO	0.0	0.1	0.0	-
88.7	ALL-WL-053	Perm. Easement	PEM	15.6	1.5	1.5	-
88.7	ALL-WL-053	Temp. Easement	PEM	0.0	0.9	0.0	-
88.7	ALL-WL-052	Temp. Easement	PFO	0.0	0.0	0.0	-
88.9	ALL-WL-053	Temp. Easement	PEM	0.0	0.6	0.0	-
88.9	ALL-WL-053	Temp. Easement	PEM	0.0	0.0	0.0	-
88.9	ALL-WL-054	Perm. Easement	PEM	885.8	1.1	1.1	-
88.9	ALL-WL-054	Temp. Easement	PEM	0.0	0.2	0.0	-
89.0	ALL-WL-054	Temp. Easement	PEM	0.0	0.7	0.0	-
89.1	ALL-WL-054	Temp. Easement	PEM	0.0	0.4	0.0	-
89.1	ALL-WL-054	ATWS	PEM	0.0	0.2	0.0	-
89.1	ALL-WL-055	Perm. Easement	PEM	170.3	0.1	0.1	-
89.1	ALL-WL-055	Temp. Easement	PEM	0.0	0.1	0.0	-
89.2	ALL-WL-056	Perm. Easement	PFO	28.8	0.1	0.1	0.1
89.2	ALL-WL-056	Perm. Easement	PEM	0.0	0.0	0.0	-
89.2	ALL-WL-056	Temp. Easement	PEM	0.0	0.0	0.0	-
89.2	ALL-WL-056	Temp. Easement	PFO	0.0	0.1	0.0	-
89.3	ALL-WL-057	Perm. Easement	PEM	8.4	0.0	0.0	-
89.3	ALL-WL-057	Temp. Easement	PEM	0.0	0.0	0.0	-
89.4	ALL-WL-058	Perm. Easement	PEM	0.0	0.1	0.1	-
89.4	ALL-WL-058	Temp. Easement	PEM	0.0	0.0	0.0	-
89.4	ALL-WL-058	Temp. Easement	PEM	0.0	0.0	0.0	-
89.5	ALL-WL-060	Perm. Easement	PEM	1,401.1	1.2	1.2	-
89.5	ALL-WL-060	Temp. Easement	PEM	0.0	0.0	0.0	-
89.6	ALL-WL-060	Temp. Easement	PEM	0.0	0.0	0.0	-
89.7	ALL-WL-060	Perm. Easement	PFO	0.0	0.0	0.0	0.0
89.7	ALL-WL-060	Temp. Easement	PFO	0.0	0.3	0.0	-
89.7	ALL-WL-060	Temp. Easement	PEM	0.0	0.1	0.0	-
89.7	ALL-WL-060	Temp. Easement	PEM	0.0	0.5	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
89.7	ALL-WL-060	Temp. Easement	PEM	0.0	0.0	0.0	-
89.7	ALL-WL-060	Temp. Easement	PEM	0.0	0.1	0.0	-
89.8	ALL-WL-061	Perm. Easement	PEM	58.0	0.0	0.0	-
89.8	ALL-WL-061	Temp. Easement	PEM	0.0	0.0	0.0	-
89.8	ALL-WL-062	Perm. Easement	PFO	0.0	0.0	0.0	-
89.8	ALL-WL-062	Temp. Easement	PFO	0.0	0.1	0.0	-
90.1	ALL-WL-063	Temp. Easement	PFO	0.0	0.6	0.0	-
90.2	ALL-WL-063	Perm. Easement	PFO	0.0	0.1	0.1	0.1
90.2	ALL-WL-064	Perm. Easement	PEM	91.6	0.1	0.1	-
90.2	ALL-WL-064	Temp. Easement	PEM	0.0	0.0	0.0	-
90.3	ALL-WL-064	Perm. Easement	PFO	0.0	0.0	0.0	0.0
90.3	ALL-WL-064	Temp. Easement	PFO	0.0	0.0	0.0	-
90.4	ALL-WL-065	Perm. Easement	PEM	53.1	0.1	0.1	-
90.4	ALL-WL-065	Temp. Easement	PEM	0.0	0.0	0.0	-
90.4	ALL-WL-066	Perm. Easement	PFO	0.0	0.0	0.0	-
90.4	ALL-WL-066	Perm. Easement	PEM	219.6	0.2	0.2	-
90.5	ALL-WL-066	Temp. Easement	PFO	0.0	0.1	0.0	-
90.5	ALL-WL-066	Temp. Easement	PEM	0.0	0.1	0.0	-
90.5	ALL-WL-066	Perm. Easement	PFO	0.0	0.1	0.1	0.1
90.6	ALL-WL-067	Perm. Easement	PEM	22.5	0.0	0.0	-
90.6	ALL-WL-067	Temp. Easement	PEM	0.0	0.0	0.0	-
90.6	ALL-WL-067	Temp. Easement	PEM	0.0	0.0	0.0	-
90.6	ALL-WL-067	ATWS	PEM	0.0	0.0	0.0	-
90.6	ALL-WL-068	Perm. Easement	PEM	87.2	0.0	0.0	-
90.6	ALL-WL-068	Temp. Easement	PEM	0.0	0.1	0.0	-
90.7	ALL-WL-069	ATWS	PFO	0.0	0.1	0.0	-
90.7	ALL-WL-069	Perm. Easement	PFO	0.0	0.1	0.1	0.1
90.7	ALL-WL-069	Perm. Easement	PEM	194.8	0.1	0.1	-
90.7	ALL-WL-069	Temp. Easement	PFO	0.0	0.1	0.0	-
90.7	ALL-WL-069	Temp. Easement	PEM	0.0	0.1	0.0	-
90.7	ALL-WL-070	Perm. Easement	PFO	6.4	0.0	0.0	-
90.7	ALL-WL-070	Temp. Easement	PFO	0.0	0.0	0.0	-
90.9	ALL-WL-071	Perm. Easement	PFO	1,136.3	1.2	1.2	1.2
90.9	ALL-WL-071	Temp. Easement	PFO	0.0	0.5	0.0	-
90.9	ALL-WL-071	ATWS	PFO	0.0	0.3	0.0	-
91.0	ALL-WL-071	Temp. Easement	PFO	0.0	0.6	0.0	-
91.1	ALL-WL-072	ATWS	PFO	0.0	0.1	0.0	-
91.1	ALL-WL-071	ATWS	PFO	0.0	0.4	0.0	-
91.1	ALL-WL-071	Temp. Easement	PFO	0.0	0.1	0.0	-
91.1	ALL-WL-071	Perm. Easement	PFO	0.0	0.1	0.1	0.1
91.2	ALL-WL-073	Perm. Easement	PEM	42.3	0.0	0.0	-
91.2	ALL-WL-073	Perm. Easement	PFO	0.0	0.0	0.0	0.0
91.2	ALL-WL-073	Temp. Easement	PFO	0.0	0.0	0.0	-
91.2	ALL-WL-073	Temp. Easement	PEM	0.0	0.0	0.0	-
91.2	ALL-WL-073	Perm. Easement	PEM	659.5	0.3	0.3	-
91.2	ALL-WL-073	Temp. Easement	PFO	0.0	0.7	0.0	-
91.3	ALL-WL-073	ATWS	PFO	0.0	1.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
91.3	ALL-WL-073	Perm. Easement	PFO	659.5	0.9	0.9	0.9
91.3	ALL-WL-073	Temp. Easement	PEM	0.0	0.5	0.0	-
91.3	ALL-WL-073	Temp. Easement	PFO	0.0	0.0	0.0	-
91.4	ALL-WL-073	ATWS	PFO	0.0	0.1	0.0	-
91.4	ALL-WL-073	ATWS	PFO	0.0	0.5	0.0	-
91.4	ALL-WL-073	Perm. Easement	PFO	0.0	0.1	0.1	0.1
91.4	ALL-WL-073	Perm. Easement	PEM	659.5	0.1	0.1	-
91.5	ALL-WL-073	Perm. Easement	PEM	131.6	0.1	0.1	-
91.5	ALL-WL-073	Temp. Easement	PEM	0.0	0.0	0.0	-
91.5	ALL-WL-073	Temp. Easement	PFO	0.0	0.2	0.0	-
91.7	ALL-WL-074	Perm. Easement	PEM	148.4	0.1	0.1	-
91.7	ALL-WL-074	Perm. Easement	PFO	0.0	0.1	0.1	0.1
91.7	ALL-WL-074	Temp. Easement	PFO	0.0	0.1	0.0	-
91.7	ALL-WL-074	Temp. Easement	PEM	0.0	0.1	0.0	-
92.5	ALL-WL-075	Perm. Easement	PEM	0.0	0.0	0.0	-
92.5	ALL-WL-075	Perm. Easement	PFO	0.0	0.0	0.0	0.0
92.5	ALL-WL-075	Temp. Easement	PEM	0.0	0.1	0.0	-
92.5	ALL-WL-075	Temp. Easement	PFO	0.0	0.0	0.0	-
92.5	ALL-WL-075	Perm. Easement	PEM	66.2	0.0	0.0	-
92.7	ALL-WL-076	Perm. Easement	PEM	272.0	0.2	0.2	-
92.7	ALL-WL-076	Temp. Easement	PFO	0.0	0.2	0.0	-
92.7	ALL-WL-076	Perm. Easement	PFO	0.0	0.1	0.1	0.1
92.7	ALL-WL-076	Temp. Easement	PEM	0.0	0.1	0.0	-
92.8	ALL-WL-076	Temp. Easement	PFO	0.0	0.2	0.0	-
92.8	ALL-WL-076	Perm. Easement	PEM	191.6	0.2	0.2	-
92.8	ALL-WL-076	Perm. Easement	PFO	0.0	0.1	0.1	0.1
92.8	ALL-WL-076	Temp. Easement	PEM	0.0	0.1	0.0	-
93.0	ALL-WL-077	Perm. Easement	PEM	120.1	0.1	0.1	-
93.0	ALL-WL-077	Temp. Easement	PEM	0.0	0.1	0.0	-
93.0	ALL-WL-077	Temp. Easement	PFO	0.0	0.1	0.0	-
93.0	ALL-WL-077	Perm. Easement	PFO	0.0	0.1	0.1	0.1
93.3	ALL-WL-078	Temp. Easement	PFO	0.0	0.0	0.0	-
93.3	ALL-WL-078	ATWS	PFO	0.0	0.0	0.0	-
93.3	ALL-WL-078	ATWS	PFO	0.0	0.0	0.0	-
93.3	ALL-WL-078	ATWS	PFO	0.0	0.1	0.0	-
93.4	ALL-WL-078	Temp. Easement	PFO	0.0	0.2	0.0	-
93.7	ALL-WL-079	Perm. Easement	PFO	0.0	0.1	0.1	0.1
93.7	ALL-WL-079	Perm. Easement	PEM	95.4	0.1	0.1	-
93.7	ALL-WL-079	Temp. Easement	PEM	0.0	0.0	0.0	-
93.7	ALL-WL-079	Temp. Easement	PFO	0.0	0.1	0.0	-
93.8	ALL-WL-080	Perm. Easement	PEM	178.4	1.6	1.6	-
93.8	ALL-WL-080	Perm. Easement	PFO	0.0	0.5	0.5	0.5
93.9	ALL-WL-080	Access Road	PEM	0.0	0.1	0.1	-
93.9	ALL-WL-080	Access Road	PEM	0.0	0.2	0.2	-
93.9	ALL-WL-080	Temp. Easement	PEM	0.0	0.0	0.0	-
94.1	ALL-WL-080	Perm. Easement	PFO	178.4	2.2	2.2	2.2
94.2	ALL-WL-080	ATWS	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
94.5	ALL-WL-080	ATWS	PFO	0.0	0.7	0.0	-
94.5	ALL-WL-080	Temp. Easement	PFO	0.0	2.5	0.0	-
94.5	ALL-WL-080	Temp. Easement	PEM	0.0	1.7	0.0	-
94.7	ALL-WL-082	ATWS	PFO	0.0	0.0	0.0	-
94.8	ALL-WL-083	ATWS	PFO	0.0	0.0	0.0	-
94.9	ALL-WL-084	Perm. Easement	PFO	131.6	0.2	0.2	0.2
94.9	ALL-WL-084	Temp. Easement	PFO	0.0	0.1	0.0	-
94.9	ALL-WL-084	Temp. Easement	PFO	0.0	0.1	0.0	-
95.0	ALL-WL-085	Temp. Easement	PFO	0.0	0.0	0.0	-
95.0	ALL-WL-085	Perm. Easement	PFO	271.1	0.3	0.3	0.3
95.0	ALL-WL-085	Temp. Easement	PFO	0.0	0.1	0.0	-
95.1	ALL-WL-085	Temp. Easement	PFO	0.0	0.2	0.0	-
95.1	ALL-WL-085	Perm. Easement	PFO	257.6	0.3	0.3	0.3
95.1	ALL-WL-085	Temp. Easement	PFO	0.0	0.1	0.0	-
95.1	ALL-WL-085	Temp. Easement	PFO	0.0	0.2	0.0	-
95.3	ALL-WL-086	Temp. Easement	PFO	0.0	0.3	0.0	-
95.3	ALL-WL-086	Perm. Easement	PFO	371.3	0.4	0.4	0.4
95.4	ALL-WL-086	Temp. Easement	PFO	0.0	0.2	0.0	-
95.4	ALL-WL-086	Perm. Easement	PFO	233.6	0.4	0.4	0.4
95.4	ALL-WL-086	Temp. Easement	PFO	0.0	0.1	0.0	-
95.5	ALL-WL-086	Temp. Easement	PFO	0.0	0.1	0.0	-
95.5	ALL-WL-086	Temp. Easement	PFO	0.0	0.1	0.0	-
95.7	ALL-WL-087	Perm. Easement	PFO	24.7	0.0	0.0	0.0
95.7	ALL-WL-087	Temp. Easement	PFO	0.0	0.0	0.0	-
95.8	ALL-WL-087	Temp. Easement	PFO	0.0	0.0	0.0	-
96.0	ALL-WL-088	Perm. Easement	PFO	63.0	0.1	0.1	0.1
96.0	ALL-WL-088	Temp. Easement	PFO	0.0	0.0	0.0	-
96.0	ALL-WL-088	Perm. Easement	PFO	0.0	0.0	0.0	-
96.0	ALL-WL-088	Temp. Easement	PFO	0.0	0.1	0.0	-
96.1	ALL-WL-089	Perm. Easement	PFO	0.0	0.0	0.0	-
96.1	ALL-WL-089	Temp. Easement	PFO	0.0	0.0	0.0	-
96.1	ALL-WL-190	ATWS	PFO	0.0	0.0	0.0	-
96.2	ALL-WL-190	Perm. Easement	PFO	16.2	0.0	0.0	0.0
96.2	ALL-WL-190	Temp. Easement	PFO	0.0	0.0	0.0	-
96.2	ALL-WL-190	Interconnect	PFO	0.0	0.0	0.0	-
96.2	ALL-WL-190	Interconnect	PEM	0.0	0.0	0.0	-
96.2	ALL-WL-190	Perm. Easement	PFO	14.1	0.0	0.0	0.0
96.2	ALL-WL-190	Temp. Easement	PFO	0.0	0.0	0.0	-
96.2	ALL-WL-190	Temp. Easement	PFO	0.0	0.0	0.0	-
96.2	ALL-WL-091	Comp. Station	PFO	0.0	0.0	0.0	-
96.3	ALL-WL-091	Comp. Station	PFO	0.0	0.0	0.0	-
96.3	ALL-WL-092	Perm. Easement	PFO	259.6	0.3	0.3	0.3
96.4	ALL-WL-091	Comp. Station	PEM	0.0	0.0	0.0	-
96.4	ALL-WL-092	ATWS	PFO	0.0	0.2	0.0	-
96.4	ALL-WL-093	ATWS	PEM	0.0	0.0	0.0	-
96.4	ALL-WL-093	Perm. Easement	PEM	9.6	0.0	0.0	-
96.4	ALL-WL-092	Temp. Easement	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
96.4	ALL-WL-092	Temp. Easement	PFO	0.0	0.2	0.0	-
96.4	ALL-WL-093	Temp. Easement	PEM	0.0	0.0	0.0	-
96.4	ALL-WL-093	Temp. Easement	PEM	0.0	0.0	0.0	-
96.4	ALL-WL-094	Perm. Easement	PEM	13.0	0.0	0.0	-
96.4	ALL-WL-094	Temp. Easement	PEM	0.0	0.0	0.0	-
96.4	ALL-WL-094	Perm. Easement	PEM	32.8	0.0	0.0	-
96.4	ALL-WL-094	Temp. Easement	PEM	0.0	0.0	0.0	-
96.5	ALL-WL-096	Perm. Easement	PEM	37.1	0.0	0.0	-
96.5	ALL-WL-096	Temp. Easement	PEM	0.0	0.0	0.0	-
96.5	ALL-WL-096	ATWS	PEM	0.0	0.1	0.0	-
96.5	ALL-WL-096	Perm. Easement	PEM	27.3	0.7	0.7	-
96.5	ALL-WL-096	Temp. Easement	PEM	0.0	0.0	0.0	-
96.5	ALL-WL-096	Temp. Easement	PEM	0.0	0.3	0.0	-
96.6	ALL-WL-096	ATWS	PEM	0.0	0.4	0.0	-
96.6	ALL-WL-096	ATWS	PEM	0.0	0.1	0.0	-
96.6	ALL-WL-096	Temp. Easement	PEM	0.0	0.4	0.0	-
96.6	ALL-WL-096	ATWS	PFO	0.0	0.1	0.0	-
96.6	ALL-WL-096	Perm. Easement	PFO	27.3	0.0	0.0	0.0
96.6	ALL-WL-096	Temp. Easement	PFO	0.0	0.0	0.0	-
96.6	ALL-WL-096	Temp. Easement	PFO	0.0	0.0	0.0	-
96.8	ALL-WL-097	Temp. Easement	PFO	0.0	0.1	0.0	-
97.0	ALL-WL-098	Perm. Easement	PEM	4.0	0.0	0.0	-
97.0	ALL-WL-099	Perm. Easement	PEM	0.6	0.0	0.0	-
97.1	ALL-WL-100	ATWS	PFO	0.0	0.2	0.0	-
97.1	ALL-WL-100	Temp. Easement	PFO	0.0	0.1	0.0	-
97.1	ALL-WL-100	Perm. Easement	PFO	69.4	0.1	0.1	0.1
97.1	ALL-WL-100	Temp. Easement	PFO	0.0	0.0	0.0	-
97.1	ALL-WL-101	ATWS	PFO	0.0	0.0	0.0	-
97.1	ALL-WL-101	ATWS	PFO	0.0	0.2	0.0	-
97.1	ALL-WL-101	Perm. Easement	PFO	307.8	0.5	0.5	0.5
97.2	ALL-WL-101	Temp. Easement	PFO	0.0	0.3	0.0	-
97.2	ALL-WL-101	Temp. Easement	PFO	0.0	0.2	0.0	-
97.2	ALL-WL-101	Temp. Easement	PFO	0.0	0.0	0.0	-
97.2	ALL-WL-101	Perm. Easement	PFO	307.8	0.4	0.4	0.4
97.2	ALL-WL-101	Temp. Easement	PFO	0.0	0.2	0.0	-
97.3	ALL-WL-101	Temp. Easement	PFO	0.0	0.1	0.0	-
97.3	ALL-WL-101	Perm. Easement	PEM	307.8	0.2	0.2	-
97.3	ALL-WL-101	Temp. Easement	PEM	0.0	0.1	0.0	-
97.3	ALL-WL-101	Temp. Easement	PEM	0.0	0.1	0.0	-
97.4	ALL-WL-102	Perm. Easement	PEM	161.4	0.2	0.2	-
97.4	ALL-WL-102	Temp. Easement	PEM	0.0	0.1	0.0	-
97.4	ALL-WL-102	Temp. Easement	PEM	0.0	0.1	0.0	-
97.4	ALL-WL-103	Temp. Easement	PEM	0.0	0.5	0.0	-
97.4	ALL-WL-103	Perm. Easement	PEM	645.2	0.8	0.8	-
97.5	ALL-WL-103	Temp. Easement	PEM	0.0	0.3	0.0	-
97.7	ALL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
97.7	ALL-WL-104	Perm. Easement	PEM	153.2	0.2	0.2	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
97.7	ALL-WL-104	Temp. Easement	PEM	0.0	0.1	0.0	-
97.8	ALL-WL-105	Perm. Easement	PFO	85.1	0.1	0.1	0.1
97.8	ALL-WL-105	Temp. Easement	PFO	0.0	0.0	0.0	-
97.8	ALL-WL-105	Temp. Easement	PFO	0.0	0.0	0.0	-
97.9	ALL-WL-106	Perm. Easement	PFO	19.1	0.0	0.0	0.0
97.9	ALL-WL-106	Temp. Easement	PEM	0.0	0.0	0.0	-
97.9	ALL-WL-106	Temp. Easement	PFO	0.0	0.0	0.0	-
97.9	ALL-WL-106	Temp. Easement	PFO	0.0	0.0	0.0	-
98.2	ALL-WL-107	ATWS	PSS	0.0	0.0	0.0	-
98.2	ALL-WL-107	ATWS	PFO	0.0	0.2	0.0	-
98.2	ALL-WL-107	Perm. Easement	PFO	683.0	0.8	0.8	0.8
98.2	ALL-WL-107	Temp. Easement	PFO	0.0	0.2	0.0	-
98.3	ALL-WL-107	ATWS	PFO	0.0	0.2	0.0	-
98.4	ALL-WL-107	Temp. Easement	PEM	0.0	0.1	0.0	-
98.4	ALL-WL-107	Temp. Easement	PFO	0.0	0.5	0.0	-
98.4	ALL-WL-108	Perm. Easement	PFO	762.4	0.9	0.9	0.9
98.4	ALL-WL-108	Temp. Easement	PFO	0.0	0.1	0.0	-
98.4	ALL-WL-108	Temp. Easement	PFO	0.0	0.5	0.0	-
98.4	ALL-WL-108	ATWS	PFO	0.0	0.2	0.0	-
98.5	ALL-WL-108	Temp. Easement	PEM	0.0	0.3	0.0	-
98.5	ALL-WL-108	Perm. Easement	PFO	762.4	3.0	3.0	3.0
98.5	ALL-WL-108	Temp. Easement	PEM	0.0	0.8	0.0	-
98.6	ALL-WL-108	ATWS	PFO	0.0	0.1	0.0	-
99.0	ALL-WL-108	Temp. Easement	PFO	0.0	0.4	0.0	-
99.0	ALL-WL-108	Perm. Easement	PFO	685.5	0.8	0.8	0.8
99.0	ALL-WL-108	Temp. Easement	PFO	0.0	1.8	0.0	-
99.1	ALL-WL-108	Temp. Easement	PFO	0.0	0.4	0.0	-
99.1	ALL-WL-108	Temp. Easement	PEM	0.0	0.2	0.0	-
99.1	ALL-WL-108	Temp. Easement	PFO	0.0	0.1	0.0	-
99.4	ALL-WL-109	ATWS	PFO	0.0	0.0	0.0	-
99.4	ALL-WL-109	Perm. Easement	PFO	0.0	0.0	0.0	0.0
99.4	ALL-WL-109	Temp. Easement	PFO	0.0	0.1	0.0	-
99.5	ALL-WL-110	Perm. Easement	PFO	133.7	0.3	0.3	0.3
99.5	ALL-WL-110	Temp. Easement	PEM	0.0	0.0	0.0	-
99.5	ALL-WL-110	Temp. Easement	PFO	0.0	0.0	0.0	-
99.6	ALL-WL-110	Temp. Easement	PFO	0.0	0.5	0.0	-
99.6	ALL-WL-110	Perm. Easement	PEM	196.7	0.2	0.2	-
99.6	ALL-WL-110	Temp. Easement	PEM	0.0	0.1	0.0	-
99.7	ALL-WL-110	Temp. Easement	PEM	0.0	0.0	0.0	-
99.7	ALL-WL-110	ATWS	PFO	0.0	0.1	0.0	-
99.8	ALL-WL-111	ATWS	PFO	0.0	0.0	0.0	-
99.8	ALL-WL-112	Temp. Easement	PFO	0.0	0.0	0.0	0.0
99.9	ALL-WL-112	Perm. Easement	PFO	31.1	0.0	0.0	0.0
99.9	ALL-WL-112	Temp. Easement	PFO	0.0	0.0	0.0	-
100.1	ALL-WL-113	Temp. Easement	PFO	0.0	0.0	0.0	-
100.1	ALL-WL-113	Perm. Easement	PFO	14.4	0.0	0.0	0.0
100.1	ALL-WL-114	Perm. Easement	PEM	1,211.9	1.4	1.4	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
100.1	ALL-WL-113	Temp. Easement	PFO	0.0	0.0	0.0	-
100.1	ALL-WL-114	Temp. Easement	PEM	0.0	0.8	0.0	-
100.1	ALL-WL-114	Temp. Easement	PEM	0.0	0.6	0.0	-
100.3	ALL-WL-114	Temp. Easement	PFO	0.0	0.4	0.0	-
100.3	ALL-WL-114	Perm. Easement	PFO	1,211.9	0.3	0.3	0.3
100.3	ALL-WL-114	Temp. Easement	PFO	0.0	0.1	0.0	-
100.4	ALL-WL-114	Perm. Easement	PFO	0.0	0.0	0.0	0.0
100.4	ALL-WL-114	Perm. Easement	PFO	77.7	0.7	0.7	0.7
100.5	ALL-WL-114	Temp. Easement	PFO	0.0	0.2	0.0	-
100.5	ALL-WL-114	Perm. Easement	PEM	77.7	0.1	0.1	-
100.5	ALL-WL-114	Temp. Easement	PEM	0.0	0.0	0.0	-
100.5	ALL-WL-114	Temp. Easement	PFO	0.0	0.4	0.0	-
100.5	ALL-WL-114	Access Road	PFO	0.0	0.0	0.0	0.0
100.5	ALL-WL-114	Access Road	PEM	0.0	0.0	0.0	-
100.5	ALL-WL-114	Temp. Easement	PFO	0.0	0.1	0.0	-
100.5	ALL-WL-114	Temp. Easement	PFO	0.0	0.1	0.0	-
100.6	ALL-WL-115	Perm. Easement	PFO	109.1	0.1	0.1	0.1
100.6	ALL-WL-115	ATWS	PFO	0.0	0.1	0.0	-
100.6	ALL-WL-115	Temp. Easement	PFO	0.0	0.0	0.0	-
100.6	ALL-WL-115	Temp. Easement	PFO	0.0	0.1	0.0	-
100.7	ALL-WL-116	Perm. Easement	PFO	111.1	0.1	0.1	0.1
100.7	ALL-WL-116	ATWS	PFO	0.0	0.0	0.0	-
100.7	ALL-WL-116	Temp. Easement	PFO	0.0	0.1	0.0	-
100.7	ALL-WL-116	Temp. Easement	PFO	0.0	0.1	0.0	-
100.7	ALL-WL-117	ATWS	PFO	0.0	0.0	0.0	-
100.7	ALL-WL-117	Perm. Easement	PFO	0.0	0.0	0.0	-
100.7	ALL-WL-117	Temp. Easement	PFO	0.0	0.0	0.0	-
100.8	ALL-WL-117	Perm. Easement	PEM	0.0	0.0	0.0	-
100.8	ALL-WL-117	Temp. Easement	PEM	0.0	0.0	0.0	-
100.9	ALL-WL-118	ATWS	PFO	0.0	0.2	0.0	-
100.9	ALL-WL-118	Perm. Easement	PFO	116.1	0.1	0.1	0.1
100.9	ALL-WL-118	Temp. Easement	PFO	0.0	0.1	0.0	-
100.9	ALL-WL-118	Temp. Easement	PFO	0.0	0.1	0.0	-
101.0	ALL-WL-119	Temp. Easement	PFO	0.0	0.0	0.0	-
101.0	ALL-WL-119	Perm. Easement	PFO	17.5	0.1	0.1	0.1
101.0	ALL-WL-119	Temp. Easement	PFO	0.0	0.0	0.0	-
101.0	ALL-WL-119	Temp. Easement	PFO	0.0	0.1	0.0	-
101.1	ALL-WL-119	Perm. Easement	PFO	38.0	0.1	0.1	0.1
101.1	ALL-WL-119	Temp. Easement	PFO	0.0	0.0	0.0	-
101.1	ALL-WL-121	Temp. Easement	PFO	0.0	0.0	0.0	-
101.1	ALL-WL-121	Perm. Easement	PFO	15.0	0.0	0.0	0.0
101.1	ALL-WL-121	Perm. Easement	PFO	39.5	0.0	0.0	0.0
101.1	ALL-WL-121	Temp. Easement	PFO	0.0	0.1	0.0	-
101.3	ALL-WL-122	Perm. Easement	PSS	346.8	0.4	0.4	-
101.3	ALL-WL-122	Temp. Easement	PSS	0.0	0.0	0.0	-
101.3	ALL-WL-122	Temp. Easement	PSS	0.0	0.2	0.0	-
101.4	ALL-WL-122	Temp. Easement	PSS	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
101.8	ALL-WL-123	Access Road	PEM	0.0	0.0	0.0	-
101.8	ALL-WL-123	Access Road	PEM	0.0	0.0	0.0	-
101.8	ALL-WL-123	Access Road	PEM	0.0	0.0	0.0	-
101.8	ALL-WL-124	Perm. Easement	PEM	6.2	0.0	0.0	-
101.8	ALL-WL-124	Temp. Easement	PEM	0.0	0.0	0.0	-
101.8	ALL-WL-124	Temp. Easement	PEM	0.0	0.0	0.0	-
101.8	ALL-WL-125	Perm. Easement	PFO	83.5	0.1	0.1	0.1
101.8	ALL-WL-125	Temp. Easement	PFO	0.0	0.0	0.0	-
101.8	ALL-WL-125	Temp. Easement	PEM	0.0	0.0	0.0	-
101.9	ALL-WL-126	Temp. Easement	PFO	0.0	0.1	0.0	-
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
101.9	ALL-WL-127	Perm. Easement	PFO	119.5	0.3	0.3	0.3
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
101.9	ALL-WL-127	Perm. Easement	PEM	0.0	0.0	0.0	-
101.9	ALL-WL-127	Temp. Easement	PEM	0.0	0.1	0.0	-
101.9	ALL-WL-127	Temp. Easement	PFO	0.0	0.0	0.0	-
102.1	ALL-WL-128	Perm. Easement	PEM	13.0	0.0	0.0	-
102.1	ALL-WL-128	Temp. Easement	PEM	0.0	0.0	0.0	-
102.1	ALL-WL-128	Temp. Easement	PEM	0.0	0.0	0.0	-
102.1	ALL-WL-129	Perm. Easement	PEM	16.4	0.0	0.0	-
102.1	ALL-WL-129	Temp. Easement	PEM	0.0	0.0	0.0	-
102.1	ALL-WL-129	Temp. Easement	PEM	0.0	0.0	0.0	-
102.2	ALL-WL-130	Temp. Easement	PEM	0.0	0.1	0.0	-
102.2	ALL-WL-130	Perm. Easement	PFO	214.3	0.3	0.3	0.3
102.3	ALL-WL-130	Temp. Easement	PFO	0.0	0.2	0.0	-
102.3	ALL-WL-132	Access Road	PEM	0.0	0.1	0.0	-
102.3	ALL-WL-132	Access Road	PEM	0.0	0.1	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Perm. Easement	PEM	9.0	0.0	0.0	-
102.3	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Access Road	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Perm. Easement	PEM	7.5	0.0	0.0	-
102.3	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.3	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.6	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.6	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
102.6	ALL-WL-131	Perm. Easement	PEM	12.0	0.0	0.0	-
102.6	ALL-WL-131	Temp. Easement	PEM	0.0	0.0	0.0	-
103.1	ALL-WL-133	Perm. Easement	PFO	7.9	0.0	0.0	0.0

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
103.1	ALL-WL-133	Temp. Easement	PFO	0.0	0.0	0.0	-
103.1	ALL-WL-133	Temp. Easement	PFO	0.0	0.0	0.0	-
103.1	ALL-WL-134	Perm. Easement	PEM	4.5	0.0	0.0	-
103.1	ALL-WL-134	Temp. Easement	PEM	0.0	0.0	0.0	-
103.1	ALL-WL-134	Temp. Easement	PEM	0.0	0.0	0.0	-
103.6	ALL-WL-135	Perm. Easement	PEM	111.6	0.0	0.0	-
103.6	ALL-WL-135	Perm. Easement	PFO	111.6	0.2	0.2	0.2
103.6	ALL-WL-135	Temp. Easement	PFO	0.0	0.1	0.0	-
103.6	ALL-WL-135	Temp. Easement	PEM	0.0	0.1	0.0	-
103.9	ALL-WL-136	Perm. Easement	PSS	57.0	0.1	0.1	-
103.9	ALL-WL-136	Temp. Easement	PEM	0.0	0.0	0.0	-
103.9	ALL-WL-136	Temp. Easement	PSS	0.0	0.0	0.0	-
103.9	ALL-WL-136	Temp. Easement	PSS	0.0	0.0	0.0	-
103.9	ALL-WL-136	Temp. Easement	PEM	0.0	0.0	0.0	-
103.9	ALL-WL-136	Perm. Easement	PSS	35.2	0.1	0.1	-
103.9	ALL-WL-136	Temp. Easement	PSS	0.0	0.1	0.0	-
103.9	ALL-WL-136	Temp. Easement	PSS	0.0	0.0	0.0	-
104.0	ALL-WL-137	Perm. Easement	PFO	123.6	0.1	0.1	0.1
104.0	ALL-WL-137	Temp. Easement	PFO	0.0	0.1	0.0	-
104.0	ALL-WL-137	Temp. Easement	PFO	0.0	0.1	0.0	-
104.1	ALL-WL-138	Perm. Easement	PFO	83.9	0.1	0.1	0.1
104.1	ALL-WL-138	Temp. Easement	PFO	0.0	0.1	0.0	-
104.1	ALL-WL-138	Temp. Easement	PFO	0.0	0.0	0.0	-
104.3	ALL-WL-139	Perm. Easement	PFO	107.7	0.3	0.3	0.3
104.3	ALL-WL-139	Perm. Easement	PFO	302.5	0.0	0.0	0.0
104.3	ALL-WL-139	Temp. Easement	PFO	0.0	0.0	0.0	-
104.3	ALL-WL-139	Temp. Easement	PFO	0.0	0.0	0.0	-
104.3	ALL-WL-139	Temp. Easement	PFO	0.0	0.2	0.0	-
104.3	ALL-WL-139	ATWS	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-139	ATWS	PFO	0.0	0.2	0.0	-
104.4	ALL-WL-139	Temp. Easement	PFO	0.0	0.0	0.0	-
104.4	ALL-WL-139	Temp. Easement	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-139	ATWS	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-139	Perm. Easement	PFO	107.7	0.1	0.1	0.1
104.4	ALL-WL-139	Perm. Easement	PFO	0.0	0.0	0.0	0.0
104.4	ALL-WL-139	Temp. Easement	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-139	Temp. Easement	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-140	Perm. Easement	PFO	470.0	0.5	0.5	0.5
104.4	ALL-WL-140	ATWS	PFO	0.0	0.1	0.0	-
104.4	ALL-WL-140	Temp. Easement	PFO	0.0	0.3	0.0	-
104.5	ALL-WL-140	ATWS	PFO	0.0	0.1	0.0	-
104.5	ALL-WL-140	ATWS	PFO	0.0	0.0	0.0	-
104.5	ALL-WL-140	Temp. Easement	PFO	0.0	0.2	0.0	-
104.5	ALL-WL-141	Perm. Easement	PFO	123.8	0.1	0.1	0.1
104.5	ALL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
104.5	ALL-WL-141	Temp. Easement	PFO	0.0	0.1	0.0	-
104.5	ALL-WL-142	Temp. Easement	PFO	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
104.6	ALL-WL-142	Perm. Easement	PFO	80.5	0.2	0.2	0.2
104.6	ALL-WL-142	Temp. Easement	PFO	0.0	0.0	0.0	-
104.7	ALL-WL-143	ATWS	PFO	0.0	0.0	0.0	-
104.7	ALL-WL-143	Perm. Easement	PFO	71.9	0.1	0.1	0.1
104.7	ALL-WL-143	Temp. Easement	PFO	0.0	0.0	0.0	-
104.7	ALL-WL-143	Temp. Easement	PFO	0.0	0.1	0.0	-
104.7	ALL-WL-144	Perm. Easement	PFO	38.6	0.4	0.4	0.4
104.7	ALL-WL-144	ATWS	PFO	0.0	0.2	0.0	-
104.7	ALL-WL-144	Temp. Easement	PFO	0.0	0.1	0.0	-
104.7	ALL-WL-144	Temp. Easement	PFO	0.0	0.3	0.0	-
104.7	ALL-WL-144	ATWS	PFO	0.0	0.1	0.0	-
104.8	ALL-WL-145	Perm. Easement	PFO	143.5	0.2	0.2	0.2
104.8	ALL-WL-145	Temp. Easement	PFO	0.0	0.1	0.0	-
104.8	ALL-WL-145	ATWS	PFO	0.0	0.0	0.0	-
104.8	ALL-WL-145	Temp. Easement	PFO	0.0	0.1	0.0	-
104.9	ALL-WL-146	ATWS	PFO	0.0	0.1	0.0	-
104.9	ALL-WL-146	Temp. Easement	PFO	0.0	0.0	0.0	-
104.9	ALL-WL-147	ATWS	PFO	0.0	0.1	0.0	-
105.0	ALL-WL-147	ATWS	PFO	0.0	0.1	0.0	-
105.0	ALL-WL-147	Temp. Easement	PFO	0.0	0.1	0.0	-
105.0	ALL-WL-147	Perm. Easement	PFO	0.0	0.0	0.0	0.0
105.1	ALL-WL-148	Perm. Easement	PFO	1,051.1	1.1	1.1	1.1
105.1	ALL-WL-148	Temp. Easement	PFO	0.0	0.5	0.0	-
105.1	ALL-WL-148	ATWS	PFO	0.0	0.2	0.0	-
105.3	ALL-WL-148	Temp. Easement	PFO	0.0	0.7	0.0	-
105.8	ALL-WL-149	Temp. Easement	PFO	0.0	0.0	0.0	-
105.9	ALL-WL-149	Temp. Easement	PFO	0.0	0.0	0.0	-
106.1	ALL-WL-150	Contractor Yd	PSS	0.0	0.0	0.0	-
106.3	ALL-WL-151	Contractor Yd	PSS	0.0	0.3	0.0	-
106.8	ALL-WL-152	Perm. Easement	PFO	17.5	0.0	0.0	0.0
106.8	ALL-WL-152	Temp. Easement	PFO	0.0	0.0	0.0	-
106.8	ALL-WL-152	Temp. Easement	PFO	0.0	0.0	0.0	-
106.8	ALL-WL-154	Perm. Easement	PFO	160.3	0.2	0.2	0.2
106.8	ALL-WL-154	Temp. Easement	PFO	0.0	0.0	0.0	-
106.9	ALL-WL-154	Temp. Easement	PFO	0.0	0.1	0.0	-
106.9	ALL-WL-154	Temp. Easement	PFO	0.0	0.2	0.0	-
107.1	ALL-WL-155	ATWS	PFO	0.0	0.0	0.0	-
107.1	ALL-WL-155	Temp. Easement	PFO	0.0	0.1	0.0	-
107.5	ALL-WL-159	Access Road	PEM	0.0	0.0	0.0	-
108.2	ALL-WL-160	Perm. Easement	PSS	16.2	0.0	0.0	-
108.2	ALL-WL-160	Temp. Easement	PSS	0.0	0.0	0.0	-
108.2	ALL-WL-160	Temp. Easement	PSS	0.0	0.0	0.0	-
108.4	ALL-WL-161	Perm. Easement	PFO	220.7	0.3	0.3	0.3
108.4	ALL-WL-161	Temp. Easement	PFO	0.0	0.1	0.0	-
108.4	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
108.4	ALL-WL-161	Temp. Easement	PFO	0.0	0.6	0.0	-
108.4	ALL-WL-161	Perm. Easement	PFO	1,288.4	1.4	1.4	1.4

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
108.4	ALL-WL-161	Temp. Easement	PFO	0.0	0.2	0.0	-
108.5	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
108.6	ALL-WL-161	Temp. Easement	PFO	0.0	0.9	0.0	-
108.7	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
108.7	ALL-WL-161	Perm. Easement	PFO	755.3	0.9	0.9	0.9
108.7	ALL-WL-161	Temp. Easement	PFO	0.0	0.4	0.0	-
108.7	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
108.8	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
108.8	ALL-WL-161	Temp. Easement	PFO	0.0	0.5	0.0	-
108.8	ALL-WL-161	Perm. Easement	PFO	1,145.7	1.3	1.3	1.3
108.8	ALL-WL-161	Temp. Easement	PFO	0.0	0.5	0.0	-
108.8	ALL-WL-161	Temp. Easement	PFO	0.0	0.5	0.0	-
108.8	ALL-WL-161	ATWS	PFO	0.0	0.2	0.0	-
109.0	ALL-WL-161	Temp. Easement	PFO	0.0	0.2	0.0	-
109.1	ALL-WL-162	Perm. Easement	PFO	17.1	0.0	0.0	0.0
109.1	ALL-WL-162	Temp. Easement	PFO	0.0	0.0	0.0	-
109.1	ALL-WL-162	Temp. Easement	PFO	0.0	0.0	0.0	-
109.5	ALL-WL-163	Perm. Easement	PFO	349.8	0.3	0.3	0.3
109.5	ALL-WL-163	Temp. Easement	PFO	0.0	0.1	0.0	-
109.6	ALL-WL-163	Temp. Easement	PFO	0.0	0.0	0.0	-
109.6	ALL-WL-163	Temp. Easement	PFO	0.0	0.2	0.0	-
109.6	ALL-WL-164	Perm. Easement	PFO	36.8	0.0	0.0	0.0
109.6	ALL-WL-164	Temp. Easement	PFO	0.0	0.0	0.0	-
109.6	ALL-WL-164	Temp. Easement	PFO	0.0	0.0	0.0	-
109.6	ALL-WL-165	Temp. Easement	PFO	0.0	0.0	0.0	-
109.7	ALL-WL-165	ATWS	PFO	0.0	0.0	0.0	-
109.7	ALL-WL-165	Perm. Easement	PFO	19.7	0.1	0.1	0.1
109.7	ALL-WL-165	Temp. Easement	PFO	0.0	0.0	0.0	-
109.7	ALL-WL-165	Temp. Easement	PFO	0.0	0.0	0.0	-
109.7	ALL-WL-166	Perm. Easement	PFO	114.1	0.1	0.1	0.1
109.7	ALL-WL-166	Temp. Easement	PFO	0.0	0.1	0.0	-
109.7	ALL-WL-166	Temp. Easement	PFO	0.0	0.1	0.0	-
109.7	ALL-WL-166	ATWS	PFO	0.0	0.1	0.0	-
109.8	ALL-WL-168	Perm. Easement	PEM	21.6	0.0	0.0	-
109.8	ALL-WL-168	Temp. Easement	PEM	0.0	0.0	0.0	-
109.8	ALL-WL-169	ATWS	PFO	0.0	0.1	0.0	-
109.8	ALL-WL-169	Temp. Easement	PEM	0.0	0.0	0.0	-
109.8	ALL-WL-169	Perm. Easement	PEM	30.2	0.0	0.0	-
109.8	ALL-WL-169	Temp. Easement	PEM	0.0	0.0	0.0	-
109.8	ALL-WL-169	Temp. Easement	PFO	0.0	0.0	0.0	-
109.8	ALL-WL-169	ATWS	PFO	0.0	0.0	0.0	-
109.8	ALL-WL-169	Perm. Easement	PFO	204.4	0.1	0.1	0.1
109.8	ALL-WL-169	Temp. Easement	PFO	0.0	0.1	0.0	-
109.9	ALL-WL-169	ATWS	PFO	0.0	0.0	0.0	-
109.9	ALL-WL-170	ATWS	PFO	0.0	0.2	0.0	-
109.9	ALL-WL-170	Temp. Easement	PFO	0.0	0.0	0.0	-
110.1	EVA-WL-001	Perm. Easement	PFO	61.2	0.1	0.1	0.1

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
110.1	EVA-WL-001	Temp. Easement	PFO	0.0	0.0	0.0	-
110.1	EVA-WL-001	Temp. Easement	PFO	0.0	0.1	0.0	-
110.3	EVA-WL-003	ATWS	PFO	0.0	0.0	0.0	-
110.3	EVA-WL-003	Temp. Easement	PFO	0.0	0.1	0.0	-
110.3	EVA-WL-002	Perm. Easement	PFO	38.9	0.0	0.0	0.0
110.3	EVA-WL-003	Perm. Easement	PFO	11.1	0.0	0.0	0.0
110.3	EVA-WL-002	Temp. Easement	PFO	0.0	0.0	0.0	-
110.3	EVA-WL-003	Temp. Easement	PFO	0.0	0.0	0.0	-
110.6	EVA-WL-005	ATWS	PSS	0.0	0.0	0.0	-
110.6	EVA-WL-005	Temp. Easement	PSS	0.0	0.0	0.0	-
111.9	EVA-WL-006	ATWS	PFO	0.0	0.0	0.0	-
111.9	EVA-WL-006	Perm. Easement	PFO	44.5	0.1	0.1	0.1
111.9	EVA-WL-006	Temp. Easement	PFO	0.0	0.0	0.0	-
111.9	EVA-WL-006	Temp. Easement	PFO	0.0	0.0	0.0	-
111.9	EVA-WL-007	Perm. Easement	PEM	1,290.7	1.5	1.5	-
111.9	EVA-WL-007	Temp. Easement	PEM	0.0	0.6	0.0	-
112.1	EVA-WL-007	ATWS	PEM	0.0	0.2	0.0	-
112.2	EVA-WL-007	Temp. Easement	PEM	0.0	0.9	0.0	-
112.7	EVA-WL-008	Temp. Easement	PEM	0.0	0.0	0.0	-
112.7	EVA-WL-009	Temp. Easement	PEM	0.0	0.0	0.0	-
115.2	EVA-WL-010	Perm. Easement	PEM	18.1	0.1	0.1	-
115.2	EVA-WL-010	Temp. Easement	PEM	0.0	0.0	0.0	-
115.2	EVA-WL-010	Temp. Easement	PEM	0.0	0.2	0.0	-
115.3	EVA-WL-010	Perm. Easement	PEM	0.0	0.0	0.0	-
115.3	EVA-WL-010	Temp. Easement	PEM	0.0	0.0	0.0	-
115.3	EVA-WL-010	Access Road	PEM	0.0	0.1	0.1	-
115.3	EVA-WL-011	Access Road	PEM	0.0	0.0	0.0	-
115.3	EVA-WL-010	Temp. Easement	PEM	0.0	0.0	0.0	-
115.5	EVA-WL-012	Perm. Easement	PEM	57.7	0.1	0.1	-
115.5	EVA-WL-012	Temp. Easement	PEM	0.0	0.0	0.0	-
115.5	EVA-WL-012	Temp. Easement	PEM	0.0	0.0	0.0	-
115.5	EVA-WL-013	Perm. Easement	PEM	400.3	0.3	0.3	-
115.5	EVA-WL-013	Temp. Easement	PEM	0.0	0.0	0.0	-
115.5	EVA-WL-013	Temp. Easement	PEM	0.0	0.3	0.0	-
115.6	EVA-WL-013	Perm. Easement	PEM	145.6	0.2	0.2	-
115.6	EVA-WL-014	ATWS	PEM	0.0	0.0	0.0	-
115.6	EVA-WL-013	Temp. Easement	PEM	0.0	0.0	0.0	-
115.6	EVA-WL-013	Perm. Easement	PEM	69.1	0.1	0.1	-
115.6	EVA-WL-013	Temp. Easement	PEM	0.0	0.1	0.0	-
117.9	EVA-WL-015	Perm. Easement	PEM	0.0	0.0	0.0	-
117.9	EVA-WL-015	Temp. Easement	PEM	0.0	0.0	0.0	-
118.0	EVA-WL-016	Perm. Easement	PEM	59.9	0.1	0.1	-
118.0	EVA-WL-016	Temp. Easement	PEM	0.0	0.0	0.0	-
118.0	EVA-WL-016	ATWS	PEM	0.0	0.0	0.0	-
118.0	EVA-WL-016	Temp. Easement	PEM	0.0	0.1	0.0	-
118.0	EVA-WL-017	Perm. Easement	PEM	0.0	0.0	0.0	-
118.0	EVA-WL-017	Perm. Easement	PEM	103.7	0.0	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
118.1	EVA-WL-017	Temp. Easement	PEM	0.0	0.2	0.0	-
118.1	EVA-WL-017	Perm. Easement	PEM	0.0	0.0	0.0	-
118.1	EVA-WL-018	Perm. Easement	PFO	0.0	0.0	0.0	-
118.1	EVA-WL-018	Temp. Easement	PFO	0.0	0.0	0.0	-
118.1	EVA-WL-018	Perm. Easement	PEM	416.5	0.3	0.3	-
118.1	EVA-WL-018	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.1	EVA-WL-018	Temp. Easement	PFO	0.0	0.0	0.0	-
118.2	EVA-WL-018	Temp. Easement	PEM	0.0	0.2	0.0	-
118.2	EVA-WL-018	Temp. Easement	PFO	0.0	0.1	0.0	-
118.2	EVA-WL-018	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.2	EVA-WL-019	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.2	EVA-WL-019	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.2	EVA-WL-019	Temp. Easement	PFO	0.0	0.0	0.0	-
118.3	EVA-WL-020	Perm. Easement	PEM	0.0	0.0	0.0	-
118.3	EVA-WL-020	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.3	EVA-WL-020	Temp. Easement	PFO	0.0	0.0	0.0	-
118.3	EVA-WL-021	Temp. Easement	PEM	0.0	0.0	0.0	-
118.3	EVA-WL-022	Temp. Easement	PFO	0.0	0.0	0.0	-
118.3	EVA-WL-022	ATWS	PFO	0.0	0.0	0.0	-
118.3	EVA-WL-022	ATWS	PFO	0.0	0.0	0.0	-
118.3	EVA-WL-022	Temp. Easement	PFO	0.0	0.0	0.0	-
118.4	EVA-WL-023	Perm. Easement	PEM	183.3	0.1	0.1	-
118.4	EVA-WL-023	Perm. Easement	PFO	0.0	0.1	0.1	0.1
118.4	EVA-WL-023	Temp. Easement	PFO	0.0	0.1	0.0	-
118.4	EVA-WL-023	ATWS	PFO	0.0	0.0	0.0	-
118.4	EVA-WL-023	Perm. Easement	PFO	0.0	0.0	0.0	0.0
118.4	EVA-WL-023	Temp. Easement	PFO	0.0	0.0	0.0	-
118.4	EVA-WL-023	Temp. Easement	PEM	0.0	0.1	0.0	-
118.8	EVA-WL-024	ATWS	PFO	0.0	0.0	0.0	-
118.8	EVA-WL-024	Perm. Easement	PFO	876.2	1.0	1.0	1.0
118.8	EVA-WL-024	ATWS	PFO	0.0	0.1	0.0	-
118.9	EVA-WL-024	Temp. Easement	PFO	0.0	0.6	0.0	-
118.9	EVA-WL-024	Temp. Easement	PFO	0.0	0.4	0.0	-
118.9	EVA-WL-024	ATWS	PFO	0.0	1.0	0.0	-
119.2	STL-WL-001	ATWS	PFO	0.0	0.7	0.0	-
119.2	STL-WL-001	Perm. Easement	PFO	672.0	0.8	0.8	0.8
119.2	STL-WL-001	Temp. Easement	PFO	0.0	0.4	0.0	-
119.3	STL-WL-001	Temp. Easement	PFO	0.0	0.0	0.0	-
119.3	STL-WL-001	Temp. Easement	PFO	0.0	0.3	0.0	-
119.6	STL-WL-002	Temp. Easement	PFO	0.0	0.1	0.0	-
119.6	STL-WL-002	Perm. Easement	PFO	94.5	0.1	0.1	0.1
119.6	STL-WL-002	Temp. Easement	PFO	0.0	0.0	0.0	-
119.7	STL-WL-003	Perm. Easement	PFO	29.2	0.1	0.1	0.1
119.7	STL-WL-003	Temp. Easement	PFO	0.0	0.0	0.0	-
119.7	STL-WL-003	Temp. Easement	PFO	0.0	0.0	0.0	-
119.8	STL-WL-004	Perm. Easement	PFO	43.5	0.0	0.0	0.0
119.8	STL-WL-004	Temp. Easement	PFO	0.0	0.1	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
119.8	STL-WL-004	Temp. Easement	PFO	0.0	0.0	0.0	-
119.8	STL-WL-004	Perm. Easement	PFO	0.0	0.0	0.0	-
120.7	STL-WL-005	Perm. Easement	PFO	0.0	0.0	0.0	0.0
120.7	STL-WL-005	Temp. Easement	PFO	0.0	0.0	0.0	-
120.7	STL-WL-006	Perm. Easement	PFO	11.0	0.0	0.0	0.0
120.7	STL-WL-006	Temp. Easement	PFO	0.0	0.0	0.0	-
120.7	STL-WL-007	Perm. Easement	PFO	0.0	0.0	0.0	0.0
120.7	STL-WL-007	Temp. Easement	PFO	0.0	0.1	0.0	-
120.7	STL-WL-007	ATWS	PFO	0.0	0.0	0.0	-
120.8	STL-WL-008	Perm. Easement	PEM	60.0	0.1	0.1	-
120.8	STL-WL-008	Temp. Easement	PEM	0.0	0.0	0.0	-
120.8	STL-WL-008	Temp. Easement	PEM	0.0	0.0	0.0	-
120.9	STL-WL-009	ATWS	PEM	0.0	0.0	0.0	-
120.9	STL-WL-009	Perm. Easement	PEM	9.2	0.0	0.0	-
120.9	STL-WL-009	Temp. Easement	PEM	0.0	0.0	0.0	-
120.9	STL-WL-009	Temp. Easement	PEM	0.0	0.0	0.0	-
123.0	STL-WL-010	Perm. Easement	PEM	1,797.0	2.1	2.1	-
123.4	STL-WL-010	Access Road	PEM	0.0	0.0	0.0	-
123.4	STL-WL-010	ATWS	PEM	0.0	0.2	0.0	-
123.4	STL-WL-010	Temp. Easement	PEM	0.0	1.2	0.0	-
123.4	STL-WL-010	Temp. Easement	PEM	0.0	0.8	0.0	-
125.3	STL-WL-011	Perm. Easement	PEM	442.3	0.4	0.4	-
125.3	STL-WL-011	Temp. Easement	PEM	0.0	0.1	0.0	-
125.3	STL-WL-011	Temp. Easement	PEM	0.0	0.1	0.0	-
127.2	STL-WL-012	Perm. Easement	PFO	1,745.8	0.2	0.2	0.2
127.2	STL-WL-012	Temp. Easement	PFO	0.0	0.0	0.0	-
127.2	STL-WL-012	Temp. Easement	PFO	0.0	0.3	0.0	-
127.2	STL-WL-013	Perm. Easement	PEM	1,745.8	1.9	1.9	-
127.3	STL-WL-013	ATWS	PEM	0.0	0.2	0.0	-
127.5	STL-WL-013	Temp. Easement	PEM	0.0	1.0	0.0	-
127.5	STL-WL-013	ATWS	PEM	0.0	0.4	0.0	-
127.5	STL-WL-013	Temp. Easement	PEM	0.0	0.8	0.0	-
127.5	STL-WL-014	Perm. Easement	PEM	934.6	1.1	1.1	-
127.5	STL-WL-014	Temp. Easement	PEM	0.0	0.4	0.0	-
127.6	STL-WL-014	Temp. Easement	PEM	0.0	0.6	0.0	-
127.6	STL-WL-014	ATWS	PEM	0.0	0.5	0.0	-
127.7	STL-WL-015	Perm. Easement	PEM	609.7	0.7	0.7	-
127.7	STL-WL-015	Temp. Easement	PEM	0.0	0.3	0.0	-
127.8	STL-WL-015	Temp. Easement	PEM	0.0	0.4	0.0	-
127.8	STL-WL-016	Perm. Easement	PEM	393.3	0.5	0.5	-
127.9	STL-WL-016	Temp. Easement	PEM	0.0	0.3	0.0	-
127.9	STL-WL-016	Temp. Easement	PEM	0.0	0.2	0.0	-
127.9	STL-WL-017	Perm. Easement	PEM	722.0	0.8	0.8	-
127.9	STL-WL-017	Temp. Easement	PEM	0.0	0.3	0.0	-
128.0	STL-WL-017	Temp. Easement	PEM	0.0	0.5	0.0	-
128.0	STL-WL-018	Perm. Easement	PEM	516.6	0.7	0.7	-
128.0	STL-WL-018	Temp. Easement	PEM	0.0	0.2	0.0	-

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
128.1	STL-WL-018	ATWS	PEM	0.0	0.5	0.0	-
128.2	STL-WL-018	Temp. Easement	PEM	0.0	0.5	0.0	-
128.2	STL-WL-019	Perm. Easement	PEM	420.1	2.1	2.1	-
128.3	STL-WL-019	ATWS	PEM	0.0	0.2	0.0	-
128.5	STL-WL-019	Temp. Easement	PEM	0.0	1.2	0.0	-
128.5	STL-WL-020	Perm. Easement	PFO	420.1	0.5	0.5	0.5
128.5	STL-WL-019	Temp. Easement	PEM	0.0	1.5	0.0	-
128.6	STL-WL-020	Temp. Easement	PFO	0.0	0.1	0.0	-
128.6	STL-WL-022	Perm. Easement	PSS	420.1	1.5	1.5	-
128.6	STL-WL-020	Temp. Easement	PFO	0.0	0.4	0.0	-
128.7	STL-WL-022	Temp. Easement	PSS	0.0	0.0	0.0	-
128.7	STL-WL-022	Temp. Easement	PSS	0.0	0.0	0.0	-
128.7	STL-WL-019	Perm. Easement	PEM	0.0	0.1	0.1	-
128.8	STL-WL-022	ATWS	PSS	0.0	0.6	0.0	-
128.8	STL-WL-022	Temp. Easement	PSS	0.0	0.7	0.0	-
128.9	STL-WL-022	Temp. Easement	PSS	0.0	0.3	0.0	-
128.9	STL-WL-023	Perm. Easement	PSS	624.1	0.7	0.7	-
129.0	STL-WL-023	ATWS	PSS	0.0	0.1	0.0	-
129.0	STL-WL-023	Temp. Easement	PEM	0.0	0.1	0.0	-
129.0	STL-WL-023	Temp. Easement	PSS	0.0	0.4	0.0	-
129.0	STL-WL-023	Temp. Easement	PSS	0.0	0.2	0.0	-
129.0	STL-WL-024	ATWS	PSS	0.0	0.1	0.0	-
129.1	STL-WL-024	Perm. Easement	PSS	48.5	0.1	0.1	-
129.1	STL-WL-024	Temp. Easement	PEM	0.0	0.0	0.0	-
129.1	STL-WL-024	Temp. Easement	PSS	0.0	0.1	0.0	-
129.1	STL-WL-024	Temp. Easement	PSS	0.0	0.0	0.0	-
129.1	STL-WL-025	Perm. Easement	PSS	897.7	1.0	1.0	-
129.1	STL-WL-025	ATWS	PSS	0.0	0.2	0.0	-
129.2	STL-WL-025	Temp. Easement	PSS	0.0	0.6	0.0	-
129.2	STL-WL-025	Temp. Easement	PSS	0.0	0.1	0.0	-
129.2	STL-WL-025	Perm. Easement	PFO	897.7	0.6	0.6	0.6
129.3	STL-WL-025	Temp. Easement	PEM	0.0	0.5	0.0	-
129.3	STL-WL-025	Temp. Easement	PFO	0.0	0.4	0.0	-
129.3	STL-WL-025	Temp. Easement	PFO	0.0	0.0	0.0	-
129.7	STL-WL-026	Temp. Easement	PEM	0.0	0.1	0.0	-
129.7	STL-WL-027	Perm. Easement	PEM	958.0	1.1	1.1	-
129.7	STL-WL-027	Temp. Easement	PEM	0.0	0.4	0.0	-
129.7	STL-WL-026	ATWS	PEM	0.0	0.1	0.0	-
129.8	STL-WL-027	ATWS	PEM	0.0	0.1	0.0	-
129.9	STL-WL-027	Temp. Easement	PEM	0.0	0.5	0.0	-
129.9	STL-WL-027	Perm. Easement	PEM	975.4	1.1	1.1	-
129.9	STL-WL-027	Temp. Easement	PEM	0.0	0.4	0.0	-
129.9	STL-WL-027	ATWS	PEM	0.0	0.2	0.0	-
130.1	STL-WL-027	ATWS	PEM	0.0	0.2	0.0	-
130.1	STL-WL-027	Temp. Easement	PEM	0.0	0.6	0.0	-
130.3	STL-WL-028	Temp. Easement	PEM	0.0	0.0	0.0	-
		Total Project		**188,074.4**	**636.2**	**244.1**	**68.6**

APPENDIX K.2 (cont'd)

Wetlands Affected by the Louisiana Connector Project

Milepost	Wetland ID	Site Type	Wetland Type [a]	Length Crossed (feet)	Construction (acres)	Operation (acres)	PFO Conversion (acres) [b]
			EEM	47,457.1	143.8	50.4	0.0
			PEM	79,673.2	283.6	110.2	0.0
			PSS	9,154.2	36.3	14.8	0.0
			PFO	51,789.9	172.5	68.6	68.6
		Pipeline Total		**188,074.4**	**611.8**	**232.3**	**68.0**
			EEM	47,457.1	138.6	49.2	0.0
			PEM	79,673.2	265.8	100.4	0.0
			PSS	9,154.2	35.7	14.8	0.0
			PFO	51,789.9	171.8	68.0	68.0
		Compressor Station Interconnect Total			**0.0**	**0.0**	**0.0**
			PEM	0.0	0.0	0.0	0.0
			PFO	0.0	0.0	0.0	0.0
		Access Roads Total			**21.1**	**11.7**	**0.6**
			EEM	0.0	5.2	1.2	0.0
			PEM	0.0	14.9	9.8	0.0
			PSS	0.0	0.3	0.0	0.0
			PFO	0.0	0.8	0.6	0.6
		Contractor Yards Total			**3.3**	**0.0**	**0.0**
			EEM	0.0	0.0	0.0	0.0
			PEM	0.0	2.9	0.0	0.0
			PSS	0.0	0.3	0.0	0.0
			PFO	0.0	0.0	0.0	0.0

[a] Key:
PEM – Palustrine Emergent
PSS – Palustrine Scrub Shrub
PFO – Palustrine Forested
PUB – Palustrine Unconsolidated Bottom
EEM – Estuarine Emergent
ESS – Estuarine Scrub-Shrub

[b] PFO Conversion (Acres) - Acres of forested wetland that will be convert to PEM or PSS within the permanent easement.

APPENDIX L

TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS COLLOCATION WITH EXISTING UTILITY RIGHTS-OF-WAY

TEXAS CONNECTOR PROJECT COLLOCATION WITH EXISTING UTILITY RIGHTS-OF-WAY

APPENDIX L.1

Texas Connector Project Collocation with Existing Utility Rights-of-Way

Utility Name	Begin Milepost [a]	End Milepost [a]	Total Collocation Length (miles) [b]
Northern Pipeline			
Golden Pass Pipeline, LLC	7.7	7.9	0.3
Golden Pass Pipeline, LLC	8.9	18.9	10.0
Buckeye Development & Logistics I, LLC	11.1	11.2	<0.1
US Department of Energy	11.4	11.8	0.4
DCP NGL Operating, LLC	15.6	16.2	0.6
Centana Interstate Pipeline, LLC	15.6	16.2	0.6
Independent Refining Corp	17.2	17.3	0.1
Shell Pipeline Company, LP	17.4	17.5	0.1
Enterprise Products Operating LP	17.4	17.5	0.1
Shell Pipeline Company, LP	17.7	17.8	0.1
Denbury Green Pipeline-Texas, LLC	18.0	18.1	<0.1
BP Pipelines (North America), Inc.	18.1	18.2	0.1
Independent Refining Corp	18.2	18.3	0.1
Enterprise Products Operating LLC	18.2	18.7	0.5
Enterprise Products Operating LLC	18.2	18.7	0.4
Sunoco Pipeline, LP	18.4	18.7	0.3
Centana Intrastate Pipeline, LLC	18.4	18.5	0.1
Texas Eastern Transmission, LP	18.4	18.5	<0.1
Enterprise Products Operating LLC	18.5	18.7	0.2
Enterprise Products Operating LP	19.0	19.2	0.2
Mobil Vanderbilt-Beaumont P/L Co	20.8	20.9	0.2
Golden Triangle Storage, Inc.	20.9	22.9	2.0
Golden Triangle Storage, Inc.	20.9	22.9	2.0
Denbury Green Pipeline-Texas, LLC	22.9	23.6	0.8
Denbury Green Pipeline-Texas, LLC	24.5	25.2	0.7
Golden Triangle Storage, Inc.	24.6	25.5	0.9
Golden Triangle Storage, Inc.	25.0	25.5	0.5
Houston Pipe Line Company, LP	25.1	25.2	<0.1
Houston Pipe Line Company, LP	25.1	25.2	<0.1
Northern Segment Subtotal			**21.4**
Southern Segment			
Cheniere Midstream Services, LLC	2.8	3.1	0.3
Southern Segment Subtotal	**2.8**	**3.1**	**0.3**
FGT Lateral			
Chevron Corporation	0.0	0.9	0.9
UNKNOWN	0.0	1.6	1.6
GTS Lateral			
ExxonMobil Corporation	0.1	0.6	0.5
Golden Triangle Storage, Inc.	0.2	0.6	0.4
Golden Triangle Storage, Inc.	0.2	0.6	0.4
Centana Intrastate Pipeline, LLC	0.2	0.7	0.5
Sunoco Pipeline, LP	0.4	0.6	0.2
Golden Triangle Storage, Inc.	0.9	1.3	0.4
Golden Triangle Storage, Inc.	0.9	1.3	0.4

APPENDIX L.1 (cont'd)

Texas Connector Project Collocation with Existing Utility Rights-of-Way

Utility Name	Begin Milepost [a]	End Milepost [a]	Total Collocation Length (miles) [b]
KMLP Lateral			
Cheniere Creole Trail Pipeline, L.P.	0.1	0.1	0.1
NGPL Lateral			
Centana Intrastate Pipeline, LLC	<0.1	0.1	0.1
Cheniere Midstream Services, LLC	0.1	0.2	0.1
Laterals Subtotal			**5.4**
Texas Connector Project Collocation with Existing Rights-of-Way Total			**27.1**

[a] Approximate mileposts along the pipeline rounded to the nearest tenths.

[b] Collocation lengths have not been adjusted to reflect areas where multiple utility rights-of-way are shared. See section 2.1.2 for details on pipeline and lateral collocation totals.

Note: Addends may not sum due to rounding.

LOUISIANA CONNECTOR PROJECT
COLLOCATION WITH EXISTING UTILITY RIGHTS-OF-WAY

APPENDIX L.2

Louisiana Connector Project Collocation with Existing Utility Rights-of-Way

Utility Name/Owner	Begin Milepost [a]	End Milepost [a]	Total Collocation Length (miles)
Transco	18.7	21.1	2.5
Praxair, Enterprise, ExxonMobil	23.5	24.2	0.8
Enterprise, Praxair, ExxonMobil	24.2	25.7	1.5
Praxair, ExxonMobil, Equistar	25.7	26.4	0.7
Equistar	26.4	27.0	0.6
Enterprise (2), Shell, Explorer, Cypress, Entergy Powerline	28.8	29.3	0.5
Enterprise (2), Shell, Explorer, Cypress, Entergy Powerline, Sabine, Colonial, Shell, Colonial, Chevron, PPG	29.3	30.0	0.7
Enterprise (2), Shell, Explorer, Cypress, Entergy Powerline, Sabine, Colonial, Shell, Colonial, Chevron, PPG	30.0	33.7	3.8
KMLP, Cypress, Enterprise (2), Shell, Explorer, Colonial (2)	33.7	34.5	0.7
KMLP, Cypress, Enterprise (2), Equistar, Explorer, Shell, Colonial (2)	34.5	36.6	2.2
KMLP, Cypress, Enterprise (2), Equistar, Explorer, Shell, Colonial (2)	36.9	38.5	1.6
Enterprise (2), Cypress, Equistar, Shell, Explorer, Colonial (2)	38.5	40.0	1.5
Equistar	40.0	40.9	0.9
Enterprise, Shell, Cypress, Explorer, Praxair, Colonial (2)	41.2	41.7	0.5
Enterprise (2), Cypress, Shell, Explorer, Colonial (2)	41.7	41.9	0.2
Enterprise (2), Cypress, Explorer, Colonial (2), Shell, Praxair, Equistar	41.9	42.1	0.2
Targa	42.6	42.7	0.1
Enterprise, Shell, Cypress, Enterprise, Equistar, Explorer, Colonial (2), Chevron, Praxair	42.7	43.6	0.9
Powerline	43.6	43.8	0.3
Enterprise, Cypress, Enterprise, Explorer, Equistar, Shell, Colonial, Chevron, Colonial, Praxair	44.2	44.4	0.2
Sempra	44.4	45.4	1.0
Creole Trail, Sempra	45.4	46.3	0.8
Creole Trail	46.3	46.5	0.3
Sempra	46.5	46.7	0.2
Creole Trail, Sempra	46.7	47.1	0.3
Creole Trail, Sempra	47.9	48.2	0.3
Boardwalk, Sempra, Creole Trail	48.7	48.9	0.3
Sempra, Creole Trail, Gulf South, Boardwalk	48.9	49.2	0.2
Sempra, Creole Trail, PetroLogistics (2), Gulf South, PetroLogistics, Boardwalk	49.2	49.8	0.6

APPENDIX L.2 (cont'd)

Louisiana Connector Project Collocation with Existing Utility Rights-of-Way

Utility Name/Owner	Beginning Milepost [a]	Ending Milepost [a]	Total Collocation Length (miles)
Creole Trail, Sempra, Entergy Powerline, PetroLogistics (2), Boardwalk	49.8	50.9	1.2
Boardwalk, Creole Trail, Sempra, Entergy Powerline, PetroLogistics (2)	50.9	51.1	0.2
Entergy Powerline, Sempra (2), Creole Trail	53.4	54.4	1.1
Sempra (2)	55.2	56.3	1.0
Denbury, Sempra (2), Air Products	56.3	56.5	0.2
Sempra (2)	56.8	59.9	3.1
Sempra (3)	59.9	63.4	3.6
Sempra (2)	63.4	66.1	2.7
Creole Trail, Sempra (2), Entergy Powerline, Varibus	66.1	66.4	0.3
Creole Trail, Sempra (2), Entergy Powerline	66.4	66.8	0.4
Sempra (2), Entergy Corporation	66.8	68.8	2.0
Sempra (2), TETCO, Starks Header	68.8	69.9	1.1
Sempra (2)	70.1	70.9	0.8
Creole Trail	70.9	71.2	0.3
Creole Trail, Sempra, TETCO, Starks Header	71.2	71.4	0.2
Sempra, TETCO, Starks	71.5	72.2	0.7
Transco (4)	72.3	72.4	0.1
Starks Header	72.4	72.5	0.2
TETCO	72.7	75.7	3.0
TETCO (2)	76.7	79.2	2.4
TETCO (2)	79.5	81.5	2.0
TETCO (2)	82.6	85.6	3.1
TETCO (2)	85.9	98.1	12.2
TETCO (2)	98.2	104.4	6.2
TETCO (2)	105.1	109.9	4.8
TETCO (2)	110.0	110.1	0.1
TETCO (2)	110.6	113.2	2.6
TETCO (2)	114.7	127.5	12.8
TETCO (2)	127.6	130.5	2.9
Total Louisiana Connector Project Collocation with Existing Rights-of-Way			**95.4**

[a] Approximate mileposts along the pipeline rounded to the nearest tenths.

Note: Addends may not sum due to rounding.

APPENDIX M

ADDITIONAL TEMPORARY WORKSPACES LOCATED IN WETLANDS FOR THE TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS

ADDITIONAL TEMPORARY WORKSPACES LOCATED IN WETLANDS FOR THE TEXAS CONNECTOR PROJECT

APPENDIX M.1

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
Northern Segment				
0.1	VI.B.1.a	ATWS within Wetland	Tie into Compressor Station	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Push Section/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Push Section/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Push Section/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Push Section/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Push Section/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Water Access	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	Water Access	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.5	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.6	VI.B.1.a	ATWS within Wetland	Water Access Necessary to tie-in pipeline at a point of intersection (PI), after a long HDD across Intracoastal Waterway; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.6	VI.B.1.a	ATWS within Wetland	Water Access OSHA Type C Soil conditions are likely in saturated wetlands. Based off of experience from prior construction projects, these soil conditions make it difficult to maintain slope stability of the pipeline trench and to contain trench spoil within a 75-foot temporary construction ROW. Contractors will ensure that excavated material does not flow into adjacent wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
2.7	VI.B.1.a	ATWS within Wetland	HDD Entry/Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
4.1	VI.B.1.a	ATWS within Wetland	Water Access Necessary to tie-in pipeline at a point of intersection (PI), after a long HDD across Intracoastal Waterway; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
4.1	VI.B.1.a	ATWS within Wetland	Water Access Necessary to tie-in pipeline at a point of intersection (PI), after a long HDD across Intracoastal Waterway; spoil storage, assembly of pipe, parking, and through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
4.1	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
5.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
5.2	VI.B.1.a	ATWS within Wetland	Water Access Necessary to tie-in pipeline at a point of intersection (PI), after a long HDD across Intracoastal Waterway; spoil storage, assembly of pipe, parking, and through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
5.2	VI.B.1.a	ATWS within Wetland	HDD Entry/Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
5.3	VI.B.1.a	ATWS within Wetland	HDD Entry/Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
6.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
6.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
7.7	VI.B.1.a	ATWS within Wetland	Push Section Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
7.8	VI.B.1.a	ATWS within Wetland	Road Entry, parking, spoil storage, maintain through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
7.9	VI.B.1.a	ATWS within Wetland	RO Road AD Entry, parking, spoil storage, maintain through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.2	VI.B.1.a	ATWS within Wetland	PI/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.2	VI.B.1.a	ATWS within Wetland	PI/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.2	VI.B.1.a	ATWS within Wetland	PI/Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.3	VI.B.1.a	ATWS within Wetland	HDD Exit/Access Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The HDD pad in this area was placed so that it would have the least impact on surrounding wetlands. The surrounding wetlands were unavoidable in the area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.9	VI.B.1.a	ATWS within Wetland	HDD Entry/Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
8.9	VI.B.1.a	ATWS within Wetland	HDD Entry/Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
8.9	VI.B.1.a	ATWS within Wetland	HDD Entry/Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
9.6	VI.B.1.a	ATWS within Wetland	Staging Area Additional staging area and equipment needs including parking and equipment turnaround. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
10.0	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
10.9	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. A large canal to the south, a wetland area to the west, and the location of the HDD restrict the workspace in this area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
10.9	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
11.3	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs, to include turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
11.6	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
12.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
12.4	VI.B.1.a	ATWS within Wetland	Canal/Road Additional staging area and equipment needs. Entry, parking, spoil storage, maintain through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
12.4	VI.B.1.a	ATWS within Wetland	Canal/Road Additional staging area and equipment needs. Entry, parking, spoil storage, maintain through access for equipment and personnel. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
12.6	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
12.6	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
12.7	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs which includes turning radius for stringing trucks, welding pads, larger ditch sizing, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
13.6	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
13.7	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
14.2	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
14.4	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
14.5	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
14.5	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
14.9	VI.B.1.a	ATWS within Wetland	Road/ FPL/ PI Additional staging area and equipment needs. Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.2	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.4	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.4	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs which includes turning radius for stringing trucks, welding pads, larger ditch sizing, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.6	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.7	VI.B.1.a	ATWS within Wetland	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
16.9	VI.B.1.a	ATWS within Wetland	Canal/Foreign Pipeline Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
16.9	VI.B.1.a	ATWS within Wetland	Canal/Foreign Pipeline Additional area needs for canal include equipment and personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, and bore rig area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
17.2	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
17.3	VI.B.1.a	ATWS within Wetland	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
18.1	VI.B.1.a	ATWS within Wetland	HDD Exit/Pull String Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.2	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.5	VI.B.1.a	ATWS within Wetland	HDD Entry/Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDDs and the foreign pipeline restricts the location of the ATWS. Therefore, the wetlands in this area are unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.1	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.4	VI.B.1.a	ATWS within Wetland	Canal	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.4	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.4	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.4	VI.B.1.a	ATWS within Wetland	Canal/PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
19.6	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, sidebooms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
21.3	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs which includes turning radius for stringing trucks, welding pads, larger ditch sizing, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
21.6	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD in the area restrict the placement of the ATWS and make the wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.5	VI.B.1.a	ATWS within Wetland	Construction Conditions Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to landowner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions. The entire surrounding area is wetlands. This and the construction conditions make wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.8	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.9	VI.B.1.a	ATWS within Wetland	Construction Conditions Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to landowner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
23.0	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
23.0	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
23.0	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
23.7	VI.B.1.a	ATWS within Wetland	HDD Entry/Push Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
24.4	VI.B.1.a	ATWS within Wetland	Tie-In Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area. The entire surrounding area is wetland. This makes wetland impacts unavoidable by an ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
24.6	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
26.1	VI.B.1.a	ATWS within Wetland	Construction Conditions Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to landowner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
26.2	VI.B.1.a	ATWS within Wetland	Construction Conditions Additional staging area and equipment needs. Permanent and temporary workspace is necked down due to landowner constraints and existing foreign pipeline; therefore, ATWS was added to compensate for restricted existing conditions.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
Southern Pipeline				
0.1	VI.B.1.a	ATWS within Wetland	Tie into Compressor Station	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.1	VI.B.1.a	ATWS within Wetland	Tie into Compressor Station	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.2	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
2.2	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.2	VI.B.1.a	ATWS within Wetland	South Route Staging Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.2	VI.B.1.a	ATWS within Wetland	South Route Staging Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.6	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.6	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.6	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.9	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
2.9	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
3.8	VI.B.1.a	ATWS within Wetland	HDD Exit/ Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
3.8	VI.B.1.a	ATWS within Wetland	HDD Exit/ Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
3.8	VI.B.1.a	ATWS within Wetland	HDD Exit/ Push Section Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
5.0	VI.B.1.a	ATWS within Wetland	Road Entry, parking, spoil storage, maintain through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
5.0	VI.B.1.a	ATWS within Wetland	Road Entry, parking, spoil storage, maintain through access for equipment and personnel.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
7.5	VI.B.1.a	ATWS within Wetland	HDD Entry Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetland. This makes wetland impacts unavoidable by any ATWS configuration at this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
FGT Lateral				
0.6	VI.B.1.a	ATWS within Wetland	Foreign Pipeline Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.6	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.6	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.6	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.7	VI.B.1.a	ATWS within Wetland	Float Pipeline Equipment necessary to float pipeline requires typical 125-foot construction ROW and additional staging area.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.8	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
GTS Lateral				
0.2	VI.B.1.a	ATWS within 50ft of Wetland	Pull String Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.5	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.5	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.5	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
0.5	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
0.5	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.1	VI.B.1.a	ATWS within Wetland	HDD Exit Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.1	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.2	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
1.3	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
HPL Lateral				
1.0	VI.B.1.a	ATWS within Wetland	Pull String Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the pipestring restrict the placement of the ATWS and makes the wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
NGPL Lateral				
0.1	VI.B.1.a	ATWS within Wetland	PI Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetland. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.1 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Texas Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion
[a]	Although adequate justification has been provided for these alternative measures, PAPL would be required to comply with other requirements of the FERC Procedures. Erosion and sedimentation control devices should be monitored and maintained in these areas more frequently than the minimum time intervals required by the FERC Procedures until final grading and revegetation have been completed.			

ADDITIONAL TEMPORARY WORKSPACES LOCATED IN WETLANDS FOR THE LOUISIANA CONNECTOR PROJECT

APPENDIX M.2

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
0.01	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment and parking. Pipeline initiation point is surrounded by wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.04	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.06	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.11	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
18.14	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.06	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, material staging, parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.21	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
19.63	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
20.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
20.36	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
20.44	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
20.46	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
20.77	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
21.92	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.23	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
22.24	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.27	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.28	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil storage for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
22.57	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
23.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
24.15	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
24.86	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
25.65	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Location is critical to allowing vehicles and equipment to turn around or pass on the working side of the ROW near the access road. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
26.10	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Location was selected in an existing, cleared ROW and existing access route from the Intercoastal Waterway to avoid vegetation clearing. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
26.17	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. This location will also be used to stage material and equipment for the push/pull installation method. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
26.50	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
26.72	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area as well as material staging to construct the access road to the West. Site was selected to utilize existing raised berm and road. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
27.22	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
27.22	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
27.44	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD entry and at end of access road. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
27.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
27.47	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD entry and at end of access road. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.29	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. Location was selected for shortest path between HDD exit and Intercoastal Waterway to reduce vegetation clearing and wetland impacts. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.30	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. Location was selected for shortest path between HDD exit and Intercoastal Waterway to reduce vegetation clearing and wetland impacts. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area,it is unavoidable for the location of the ATWS pad to not impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
28.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area,it is unavoidable for the location of the ATWS pad to not impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.38	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.38	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD was selected to reduce the need for tree and vegetation clearing. Due to the multitude of wetlands in the area,it is unavoidable for the location of the ATWS pad to not impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
28.73	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
29.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
30.02	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
30.62	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. Due to the multitude of wetlands in the area,it is unavoidable for the location of the ATWS pad to not impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
30.75	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
30.84	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Area will also be used for barge/marsh buggy offloading and material staging for push/pull section. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
30.89	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. Additional staging and area for equipment is required for the installation of MLV #2. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
31.54	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
32.28	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
32.86	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking, materials, and equipment turn-around area. Location was selected in an existing, cleared ROW to reduce tree clearing. The additional area is also required to assist stringing trucks going around the 90° turn in access road AR-CAL-04. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
32.87	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking, materials, and equipment turn-around area. Location was selected in an existing, cleared ROW to reduce tree clearing. The additional area is also required to assist stringing trucks going around the 90° turn in access road AR-CAL-04. The location of the foreign pipelines and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
33.01	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
33.72	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
34.79	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. This location was selected to utilize existing road and dock to reduce clearing and the need for a new dock. The surrounding area is mostly wetlands. This makes wetland impacts nearly unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
34.81	VI.B.1.a	ATWS within Wetland	Additional material staging area and equipment needs including barge offloading equipment, parking and equipment turn-around area. This location was selected to utilize existing road and dock to reduce clearing and the need for a new dock. The surrounding area is mostly wetlands. This makes wetland impacts nearly unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
35.03	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road, powerline, and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
35.10	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road, powerline, and multitude of wetlands in the area restrict the placement of this ATWS pad and makes the wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
35.50	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The pad is located outside the wetlands but is surrounded by wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
35.80	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, spoil storage, and temporary bypass equipment. The pad is located to abutt the road ROW. Moving farther away would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
35.84	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, spoil storage, and temporary bypass equipment. The pad is located to abutt the road ROW. Moving farther away would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.33	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.41	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.46	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
36.50	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.64	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.69	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.70	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.77	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
36.92	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
37.37	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
37.44	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
37.50	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
37.61	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
37.66	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
38.47	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
38.51	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
38.61	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for HDD rig and associated equipment, storage of drill pipe, staging equipment and parking. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
39.15	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and surrounding wetlands restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
39.52	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
39.78	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
39.86	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Location is limited to the north side of the pipeline ROW due to foreign pipelines. Wetlands are all around the proposed ATWS pad. This makes wetland impacts unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.16	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD, foreign pipeline to the south, and multiple wetlands in the area restrict the location of the ATWS pad.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.52	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.55	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
40.61	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.66	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.77	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.85	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
40.98	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for multiple PIs which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PIs, and extra track hoe requirements. ATWS pad is located between foreign pipelines and wetland on the south side of the ROW. The north side of the ROW is restricted by multiple residences making the wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
41.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. ATWS pad is located between on the north side of the ROW. The south side of the ROW is restricted by foreign pipelines and an existing above grade facility/valve site. Due to this restriction and the multiple wetlands and residences in the area, impacts to the wetland are unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
41.45	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Due to the paralleled foreign pipeline directly to the south, the ATWS pad for road bore must be to the north side of the ROW. Multiple wetlands are on the north side making it unavoidable to impact wetlands.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
41.98	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
42.52	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
42.52	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the HDD and surrounding wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
42.55	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
42.62	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
42.68	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
42.97	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.09	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The surrounding area includes a multitude of wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.19	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
43.26	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.39	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
43.86	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
43.89	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit and PI: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil, turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location is critical to avoid existing WRP lands. Wetland impacts are unavoidable due to the manmade ditch which intersects the road.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.22	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the south side is restricted due to foreign pipelines. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.40	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.43	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.52	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
44.56	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.62	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the west side is restricted due to a pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.67	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
44.77	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Location was selected to reduce vegetation clearing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
45.06	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment.Location was selected to reduce vegetation clearing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
45.47	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
45.56	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
45.72	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The location was selected near the transition to TWS neckdown area for vehicle/equipment to be able to pass on the working side and assist with an open cut water crossing. Additional area includes parallel foreign pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.04	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. ATWS pad location was restricted to the east side due to the paralleling foreign pipeline on the west side. Moving the ATWS further to the south would hinder its ability to aid in construction as the distance from the foreign pipeline would be too far to transfer spoil.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.04	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. ATWS pad location was restricted to the east side due to the paralleling foreign pipeline on the west side. Moving the ATWS further to the south would hinder its ability to aid in construction as the distance from the foreign pipeline would be too far to transfer spoil.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.07	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
46.11	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.21	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.26	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.42	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
46.46	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
46.76	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.07	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands and the west side is restricted due to a paralleling foreign pipeline. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
47.14	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs including parking and equipment turn-around area. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.21	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI, bore entry/exit, and foreign pipeline crossing which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI and bore pit, extra spoil, parallel pipe stringing, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.22	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The surrounding area includes a multitude of wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. In addition, the area is surrounded with a multitude of wetlands. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.51	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
47.51	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
47.93	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.16	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.20	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.50	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.60	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.63	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
48.64	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
48.93	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
49.37	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
49.77	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
49.86	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
49.95	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
50.28	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
50.33	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
50.36	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
50.52	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.28	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.33	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.33	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
51.48	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI,several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.49	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.56	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.57	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.60	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
51.62	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines crossing, the location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.71	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.71	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.75	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.75	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
51.80	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
51.87	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the railroad and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.13	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.31	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.46	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.46	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.62	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
52.63	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.67	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.68	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
52.98	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.00	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.07	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
53.07	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.10	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.15	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.22	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.36	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.37	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.80	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
53.94	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
53.96	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.08	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.15	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.22	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.43	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
54.54	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.56	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.85	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
54.86	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
55.14	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
55.75	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
55.80	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
56.25	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
56.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
56.54	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
56.57	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
56.72	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
56.74	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
58.51	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
59.12	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
59.63	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
59.67	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
59.67	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
59.98	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
60.11	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
60.25	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
60.25	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
60.81	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
61.91	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
61.97	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
62.73	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
62.82	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
62.95	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
63.00	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
63.81	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
63.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
65.54	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
65.62	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.09	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.09	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
66.14	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.14	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Existing foreign pipelines and multitude of wetlands in the area restrict the placement of the ATWS in this area, making this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.17	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.17	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
66.36	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
66.36	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
68.01	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
68.20	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
68.24	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
69.74	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
69.80	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.02	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.04	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.06	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.34	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
70.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.84	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, Foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
70.84	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, Foreign pipeline crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
71.03	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
71.06	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
71.11	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
71.20	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
71.21	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
72.37	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
72.74	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
72.74	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
72.76	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
72.77	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
73.23	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
73.30	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
73.61	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
74.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
74.10	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
74.17	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
75.07	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
75.10	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
75.11	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines both crossing and parallelling the Sempra pipeline in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.02	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.02	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
76.03	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.07	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.08	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.45	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
76.59	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
76.62	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
78.71	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
78.74	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
79.44	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Moving the ATWS would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
81.28	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
81.53	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
81.56	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
81.58	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
81.66	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional staging area,equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Moving the would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Moving the ATWS would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.10	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.15	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.27	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
82.35	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing .	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
84.84	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
84.84	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
84.92	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
85.81	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
85.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
86.12	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
86.13	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
86.27	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
87.08	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
87.43	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
87.49	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
89.12	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
89.29	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
89.41	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
89.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
90.61	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
90.62	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
90.66	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road crossing and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
90.92	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
91.07	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
91.26	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
91.32	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
91.41	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
91.47	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
91.51	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
92.63	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
93.30	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
93.33	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
94.20	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
94.45	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
94.72	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
94.76	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI, foreign pipeline crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
94.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, foreign pipeline crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.14	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody crossing and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.37	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.55	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.60	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.65	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
96.95	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.97	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.98	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Existing structures and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
96.99	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Existing structures and the multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
97.08	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
97.08	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
97.13	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
97.13	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
97.57	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
97.72	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
98.21	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI,foreign pipelines parallelling the Sempra pipeline and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
98.22	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The location of the PI, foreign pipelines parallelling the Sempra pipeline and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
98.32	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
98.40	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
98.55	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
99.37	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
99.71	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
99.78	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
99.85	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs including parking and equipment turn-around area. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
100.56	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
100.58	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
100.73	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The location of the waterbody and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
100.92	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
100.92	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
103.60	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the road crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
103.61	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. Moving the ATWS would not assist with the road crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
104.34	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.41	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.44	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.47	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.59	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.65	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.69	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
104.73	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.79	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.89	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The location of the road and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
104.95	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
105.05	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
105.10	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
107.10	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
108.39	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
108.45	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
108.64	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
108.70	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
108.78	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
108.83	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.67	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.73	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
109.79	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for pull string includes pull-back pipe on rollers, HDD aboveground pre-test equipment and pipe string, and travel lanes for other equipment. The location of the HDD and length of the drill string restrict the placement of the ATWS in this area. The wetland impact is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.87	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The location of the PI and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.87	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
109.87	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
110.08	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. Foreign pipelines parallelling the Sempra pipeline and the location of the HDD restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
110.27	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would reduce the benefit for nearby spoil storage for the waterbody crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
110.65	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
111.87	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS would reduce the benefit for nearby spoil storage for the waterbody crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
112.15	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
112.64	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
115.59	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
115.61	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for tie-in including bell hole installation for the T section and additional spoil area. The location of the tie-in and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
117.98	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
118.24	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
118.30	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
118.38	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the waterbody crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
118.79	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
118.80	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
118.84	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
118.94	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs. Worksite must be level for drilling rig and associated equipment, storage of drill pipe, parking, pull-back area. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
119.17	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for HDD aboveground pre-test equipment and pipe material, side-booms, cranes for HDD pullback loading at an inclined angle, and personnel vehicle parking. The location of the HDD and multitude of wetlands in the area restrict the location of the ATWS pad and make this wetland impact unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
120.66	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
120.70	VI.B.1.a	ATWS within Wetland	Additional area needs for foreign pipeline crossings include spoil needs for daylighting foreign pipelines, additional equipment storage for pipeline mats, and parallel pipeline stringing. Several foreign pipelines in the area, both crossing and paralleling the Sempra pipeline dictate the necessity for this ATWS and restrict the area which it can be placed. Therefore, the wetland impact here is unavoidable.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
120.80	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit and PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI,: personnel parking/staging, parallel pipeline stringing, bore pit, extra bore pit spoil, daylighting foreign pipeline spoil. Moving the ATWS farther away would reduce the benefit pipeline construction.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
120.94	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
120.95	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. Moving the ATWS farther away would reduce the benefit for nearby spoil storage for the road crossing.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
123.35	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil. The entire surrounding area is wetlands. Moving the ATWS to the East is restricted by existing structures. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
127.35	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
127.48	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
127.56	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional staging area and equipment needs for Bore entry/exit: personnel parking/staging, parallel pipeline stringing, bore pit, and extra bore pit spoil.. Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
128.11	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
128.30	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
128.82	VI.B.1.a	ATWS within Wetland	Additional staging area and equipment needs for PI which includes turning radius for stringing trucks, welding pads, larger ditch sizing for installing PI, and extra track hoe requirements. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
128.99	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
129.04	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
129.09	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
129.69	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
129.83	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

APPENDIX M.2 (cont'd)

Additional Temporary Workspaces Located in Wetlands for the Louisiana Connector Project

Milepost	Procedures Section Reference	Deviation Description	Justification	FERC Conclusion [a]
129.89	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
130.04	VI.B.1.a	ATWS within Wetland	Maintain through access for equipment and personnel. Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, and temporary bypass equipment. The entire surrounding area is wetlands. This makes wetland impacts unavoidable by any ATWS configuration in this location.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.
130.33	VI.B.1.a	ATWS within Wetland	Additional area includes equipment and personnel parking/staging, parallel pipeline stringing, additional spoil storage, and temporary bypass equipment. Moving the ATWS to the North side would not assist with the waterbody crossing and is restricted by foreign pipelines.	Sufficiently justified. A suitable upland alternative location for the ATWS is not available.

[a] Although adequate justification has been provided for these alternative measures, PAPL would be required to comply with other requirements of the FERC Procedures. Erosion and sedimentation control devices should be monitored and maintained in these areas more frequently than the minimum time intervals required by the FERC Procedures until final grading and revegetation have been completed.

APPENDIX N

BIRDS OF CONSERVATION CONCERN WITHIN BCR 37 – GULF COASTAL PRAIRIE IN THE PROJECTS AREA

APPENDIX N

Birds of Conservation Concern within BCR 37 – Gulf Coastal Prairie in the Projects Area [a]

Common Name [b]	Scientific Name
Audubon's Shearwater (nb)	*Puffinus lherminieri*
Band-rumped Storm-Petrel (nb)	*Oceanodroma castro*
American Bittern	*Botaurus lentiginosus*
Least Bittern	*Ixobrychus exilis*
Reddish Egret	*Egretta rufescens*
Swallow-tailed Kite	*Elanoides forficatus*
Bald Eagle (b)	*Haliaeetus leucocephalus*
White-tailed Hawk	*Geranoaetus albicaudatus*
Peregrine Falcon (b) (nb)	*Falco peregrinus*
Yellow Rail	*Coturnicops noveboracensis*
Black Rail	*Laterallus jamaicensis*
Snowy Plover (c)	*Charadrius nivosus*
Wilson's Plover	*Charadrius wilsonia*
Mountain Plover (nb)	*Charadrius montanus*
American Oystercatcher	*Haematopus palliatus*
Solitary Sandpiper (nb)	*Tringa solitaria*
Lesser Yellowlegs (nb)	*Tringa flavipes*
Upland Sandpiper (nb)	*Bartramia longicauda*
Whimbrel (nb)	*Numenius phaeopus*
Long-billed Curlew	*Numenius americanus*
Hudsonian Godwit (nb)	*Limosa haemastica*
Marbled Godwit (nb)	*Limosa fedoa*
Red Knot (roselaari ssp.) (nb)	*Calidris canutus roselaari*
Red Knot (rufa ssp.) (a) (nb)	*Calidris canutus rufa*
Buff-breasted Sandpiper (nb)	*Tryngites subruficollis*
Short-billed Dowitcher (nb)	*Limnodromus griseus*
Least Tern (c)	*Sternula antillarum*
Gull-billed Tern	*Gelochelidon nilotica*
Sandwich Tern	*Thalasseus sandvicensis*
Black Skimmer	*Rynchops niger*
Short-eared Owl (nb)	*Asio flammeus*
Loggerhead Shrike	*Lanius ludovicianus*
Sedge Wren (nb)	*Cistothorus platensis*
Sprague's Pipit (nb)	*Anthus spragueii*
Prothonotary Warbler	*Protonotaria citrea*
Swainson's Warbler	*Limnothlypis swainsonii*
Botteri's Sparrow	*Peucaea botterii*
Grasshopper Sparrow	*Ammodramus savannarum*
Henslow's Sparrow (nb)	*Ammodramus henslowii*
LeConte's Sparrow (nb)	*LeConte's Sparrow (nb)*
Nelson's Sharp-tailed Sparrow (nb)	*Ammodramus nelsoni*
Seaside Sparrow (c)	*Ammodramus maritimus*
Painted Bunting	*Passerina ciris*
Dickcissel	*Spiza americana*

[a] U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <http://www.fws.gov/migratorybirds/>]

[b] Species status within the BCR:
(b) ESA delisted
(c) non-listed subspecies or population of Threatened or Endangered species
(nb) non-breeding in this BCR

APPENDIX O

DETERMINATIONS OF NO EFFECT ON FEDERALLY LISTED SPECIES AND CRITICAL HABITAT FOR THE PROJECTS

APPENDIX O

Justification for Determinations of No Effect on Federally Listed Species and Critical Habitat for the Projects

Common Name *Scientific Name*	Federal Status[a] – Parish/County[b]	Justification for Determination of No Effect
Pallid sturgeon *Scaphirhynchus albus*	E - STL	The pallid sturgeon is a bottom-oriented, fish that inhabits large river systems from Montana to Louisiana. Within this range, pallid sturgeon tends to select main channel habitats in the Mississippi River and main channel areas with islands or sand bars in the upper Missouri River. In Louisiana, it occurs in the Atchafalaya and Mississippi Rivers, and below Lock and Dam Number 3 on the Red River (with known concentrations in the vicinity of the Old River Control Structure Complex) (FWS, 2016a). The Louisiana Connector Project would not occur within suitable habitat for the pallid sturgeon.
Gulf sturgeon *Acipenser oxyrinchus desotoi*	T – N/A	Gulf sturgeon are an anadromous fish, which means they can live in both fresh and saltwater. They have a relatively complex life history that includes spawning and juvenile rearing in rivers followed by migrating to saltwater to feed, grow, and mature before returning to freshwater to spawn. They are a long-lived, slow-growing fish. They are vulnerable to many stressors and threats including blocked access to spawning grounds and habitat degradation caused by dams and culverts. The Projects are located outside of the species range (NMFS, 2007; NMFS, 2018). Although there is a possibility that some LNG vessel transit routes could traverse through the coastal waters of the northeastern Gulf of Mexico, inhabited by the Gulf sturgeon, the Gulf sturgeon are bottom-oriented species that primarily inhabit shallow coastal and estuarine habitats, and are not known to be affected by large, ocean-going vessels (NMFS, 2018). Therefore, the Gulf sturgeon is not expected to be exposed to any direct or indirect effects of the Liquefaction Project.
Oceanic whitetip shark *Carcharhinus longimanus*	T – N/A[c]	The oceanic whitetip shark is found throughout the world in tropical and sub-tropical waters. It is a pelagic species, generally remaining offshore in the open ocean, on the outer continental shelf, or around oceanic islands in water depths greater than 600 feet. They live from the surface of the water to at least 498 feet deep. The primary threat to the oceanic whitetip shark is incidental bycatch in commercial fisheries (NMFS, n.d.-h). Given that sharks are not known to be susceptible to vessel strikes, the oceanic whitetip shark is not expected to be exposed to any direct or indirect effects of the Liquefaction Project.
Piping plover *Charadrius melodus*	CH - CA	On July 10, 2001, the FWS designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132), including seven critical habitat units in Louisiana, with one of those units in Cameron Parish (LA-1) (FWS, 2001a). The Texas Connector and Louisiana Connector Projects do not occur within the designated critical habitat unit in Cameron Parish.
Lobed star coral *Orbicella annularis*	T – N/A[c]	Lobed star coral grows in lobes, and the surface usually does not have ridges or bumps (NMFS, n.d.-c). This species grows in waters 2 to 270 feet deep. Given that there would be no reef disturbance associated with the minor increase in vessel traffic in the Gulf of Mexico associated with LNG vessels calling on the Liquefaction Project facility (about three to four carriers per week), coral species are not expected to be exposed to any direct or indirect effects of the Liquefaction Project.
Mountainous star coral *Orbicella faveolata*	T – N/A[c]	Mountainous star coral grows in heads or sheets, and the surface can be smooth, bumpy, or ridged. This species grows in waters 2 to 270 feet deep (NMFS, n.d.-c). Given that there would be no reef disturbance associated with the minor increase in vessel traffic in the Gulf of Mexico associated with LNG vessels calling on the Liquefaction Project facility (about three to four carriers per week), coral species are not expected to be exposed to any direct or indirect effects of the Liquefaction Project.

APPENDIX O (cont'd)

Justification for Determinations of No Effect on Federally Listed Species and Critical Habitat for the Projects

Common Name *Scientific Name*	Federal Status[a] – Parish/County[b]	Justification for Determination of No Effect
Boulder star coral *Orbicella franksi*	T – N/A[c]	Boulder star coral has large, unevenly-arranged polyps that make the surface of the coral look irregular and grows in waters 2 to 270 feet deep (NMFS, n.d.-c). Given that there would be no reef disturbance associated with the minor increase in vessel traffic in the Gulf of Mexico associated with LNG vessels calling on the Liquefaction Project facility (about three to four carriers per week), coral species are not expected to be exposed to any direct or indirect effects of the Liquefaction Project.
Elkhorn coral *Acropora palmata*	T – N/A[c]	Elkhorn coral is the largest of all species of *Acropora* (NMFS, 2012). Colonies are flattened to near round with frond-like branches. Branches typically radiate outward from a central trunk (NMFS, n.d.-c). Elkhorn coral generally grows in water 3 to 15 feet deep on the seaward face of the reef (NMFS, 2012). Given that there would be no reef disturbance associated with the minor increase in vessel traffic in the Gulf of Mexico associated with LNG vessels calling on the Liquefaction Project facility (about three to four carriers per week), coral species are not expected to be exposed to any direct or indirect effects of the Liquefaction Project.

[a] Federal status includes: Endangered (E) and Critical Habitat (CH).

[b] Parish/County: Orange County (OR), Cameron Parish (CA), St. Landry Parish (STL)

[c] Oceanic whitetip shark listed for the States of Texas and Louisiana (NMFS, n.d.-a; n.d.-b); coral species listed for the State of Texas (NMFS, n.d.-a).

APPENDIX P

STATE-LISTED AND RARE SPECIES
POTENTIALLY OCCURRING IN THE VICINITY OF
THE PROJECTS

APPENDIX P

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
BIRDS				
American peregrine falcon [c, d] *Falco peregrinus anatum*	T – JE, OR	Liquefaction Texas Connector	The Texas coastline plays an important role in the survival of migrating peregrine falcons. Falcons assemble on the Texas coast to take advantage of the abundant prey along the open coastline and tidal flats. Preferred hunting habitats in the Project area include coastal prairies and marshes (TPWD, 2016).	Suitable nesting habitat is not present in the Liquefaction or Texas Connector Projects area. However, suitable foraging habitat for this species is present in both project areas. Therefore, the projects may affect this species through reducing quality and/or availability of foraging habitat.
Arctic peregrine falcon [c] *Falco peregrinus tundrius*	R – JE, OR	Liquefaction Texas Connector	Arctic Peregrines migrate through Texas twice a year to and from their wintering areas in South America and stop on the Texas Coast to feed before continuing their migration. Foraging habitats include meadows, river bottoms, croplands, marshes, and lakes (TPWD, 2017a).	Suitable foraging habitat for this species is found in the Liquefaction and Texas Connector Projects area. Therefore, the Projects may affect this species through reducing quality and/or availability of foraging habitat.
*Brown pelican [c, e] *Pelecanus occidentalis*	R – JE, OR	Louisiana Connector	Found in largely coastal and near shore areas, where it nests on small, isolated coastal islands, safe from predators such as raccoons and coyotes (TPWD, 2017a).	The Louisiana Connector Project would not impact suitable habitat for this species.
*Reddish egret [c, d, e] *Egretta rufescens*	T - JE	Louisiana Connector	Found along the Gulf Coast of Texas and some parts of Louisiana and southern Florida. Nests are built mostly on the ground near a bush or prickly pear cactus or on an oyster shell beach (TPWD, 2017a).	Louisiana Connector Project activities in Jefferson County would occur within the previously disturbed Liquefaction facility; therefore, suitable habitat would not be present for this species and impacts are not anticipated.
Swallow-tailed kite [c, d] *Elanoides forficatus*	T – JE, OR	Liquefaction Texas Connector	Currently nests only in the states along the Gulf Coast and other adjacent states; which is less than half of its historical U.S. breeding range. Occasionally, kites are seen statewide in Texas during spring and fall migration as well as all along the Gulf Coast. When nesting in Texas, swallow-tailed kites are most likely to be seen near large rivers, particularly the lower Trinity, lower Neches and lower Sabine river watersheds and associated bottomland hardwood forests (TPWD, 2017b).	Suitable habitat for this species exists in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible if activities are conducted during the nesting season.
White-faced ibis [c, d, e] *Plegadis chihi*	T – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	In Texas, they breed and winter along the Gulf Coast and may occur as migrants in the Panhandle and West Texas. Frequents marshes, swamps, ponds and rivers; and seems to prefer freshwater marshes, where it can find insects, newts, leeches, earthworms, snails and especially crayfish, frogs and fish. They roost on low platforms of dead reed stems or on mud banks. During the nesting season, they are colonial and will construct a deep cup of dead reeds among beds of bulrushes, on floating mats of dead plants or they may nest in trees (TPWD, 2017a).	Suitable habitat for this species exists in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible if activities are conducted during the nesting season.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
Wood stork [c, d, e] *Mycteria americana*	T – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	Breeds in Mexico and migrates to the Gulf states for foraging; there have been no breeding records in Texas since 1960 (Texas A&M, 2017). The wood stork is associated with various habitats featuring shallow, standing water; including prairie ponds, ditches, mudflats, flooded fields, and natural wetlands. The wood stork will utilize both freshwater and saltwater systems, located in either open or forested areas. The wood stork roosts communally in snags, sometimes in association with other species of wading birds (TPWD, 2016).	Suitable foraging habitat for this species is found in the Liquefaction and Texas Connector Projects areas. Therefore, the projects may affect this species through reducing quality and/or availability of foraging habitat.
Black rail [c, d, e] *Laterallus jamaicensis*	R – JE	Liquefaction Texas Connector Louisiana Connector [f]	Inhabits marshes (salt, brackish, and freshwater), pond borders, wet meadows, and grassy swamps and feeds on small invertebrates and seeds. A year-round resident of central coastal Texas, black rails nest in May and June, typically building well-concealed ground nests in clumps of vegetation (Texas A&M, 2017).	Suitable habitat for this species exists in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible if activities are conducted during the nesting season. On October 9, 2018, the FWS proposed the eastern black rail for listing as threatened under the ESA; therefore, this species is further addressed in section 4.7.3.
Henslow's sparrow [c, d, e] *Ammodramus henslowii*	R – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	Winter non-breeding range extends from coastal North Carolina west to central Texas. Prefers dense grass and forb cover in longleaf/slash pine savanna; wet meadows, often dominated by broomsedge (*Andropogon virginicus*) and wiregrass (*Aristida* spp.) within longleaf pine savanna; pitcher plant (*Sarracenia* spp.) bogs; moist grassy un-mowed fields, rights-of-way, and prairies (Cornell Lab of Ornithology, 2017).	Suitable foraging habitat for this species is found in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of foraging habitat.
*Snowy plover [c, d, e] *Charadrius alexandrinus*	R – JE	Liquefaction Texas Connector Louisiana Connector [f]	In Texas, it is typically observed along the southern half of the coastline (Texas A&M, 2017). Snowy Plovers breed in Texas from near sea level to about 1200 m (3900 ft) on bare upper beaches and sandy flats along the coast and sandy shores of large alkaline, saline or freshwater lakes (Oberholser 1974).	The Liquefaction, Texas Connector, and Louisiana Connector Projects would not impact suitable habitat for this species.
*Sooty tern [c, d] *Sterna fuscata*	T – OR	Texas Connector	Typically observed along the southern half of the Texas coastline. Sooty terns are pelagic, spending more than half of their life at sea. This species is typically observed in Texas from March to October, breeding between late April and early July. They tend to breed on small coastal islands in small colonies in open areas (Texas A&M, 2017).	The Texas Connector Project would not impact suitable habitat for this species.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
Crested Caracara [c, g] *Caracara cheriway*	R – CAM, CAL	Louisiana Connector	Occurs mainly in southeast Texas and Florida, with the Louisiana population limited to the extreme southwest portion of the state, particularly Cameron Parish. Occurs in open areas such as prairies or rangeland with scattered trees (LDWF, 2017a).	Suitable habitat for this species is found in Louisiana Connector Project area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. See section 4.7.4 for a discussion of impacts on this species.
Rafinesque's big-eared bat [d] *Corynorhinus rafinesquii*	T – JE, OR	Liquefaction Texas Connector	In the southeastern United States, they reach the westernmost portion of their range in the pine forests of East Texas. Roost in cave entrances, in hollow trees, in man-made structures such as abandoned buildings, and under bridges (TPDW, 2017).	Suitable roosting and foraging habitat is present in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Plains spotted skunk [d, e] *Spilogale putorius interrupta*	R – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	Distribution in Texas includes Fort Bend, Harris, Haskell, Jones, Lubbock (possibly extirpated), San Jacinto, Taylor, and Waller Counties (NatureServe, 2017). Found most commonly in open grasslands, brushy areas and cultivated land. Their dens are located below ground in grassy banks, rocky crevices or along fence rows, as well as above ground in hay stacks, woodpiles, hollow logs or trees or brush heaps (MDC, 2017).	Suitable habitat for this species is found in both the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Southeastern myotis bat [d] *Myotis austroriparius*	R – JE, OR	Liquefaction Texas Connector	The southeastern myotis lives in the southeastern United States, from coastal North Carolina south into peninsular Florida, west through Louisiana and into eastern Texas and southeastern Arkansas. It also lives along the lower Ohio River Valley in Kentucky, Indiana, and Illinois. In Texas this species occurs westward to the Pineywoods region of East Texas. Roosts in a variety of shelters including caves, mines, bridges, buildings, culverts, and tree hollows. It prefers oak-hickory to mixed conifer-hardwood habitats and is often associated with human habitations near streams or lakes (TPWD, 2017a).	Suitable roosting habitat not anticipated in the Liquefaction or Texas Connector Projects area. This species likely uses the Liquefaction and Texas Connector Projects area for foraging habitat. Therefore, the projects may affect this species through reducing quality and/or availability of habitat.
Alligator snapping turtle [e] *Macrochelys temminckii*	T – JE, OR	Liquefaction Texas Connector Louisiana Connector	In North America, the distribution includes much of the Mississippi River Valley (known historically as far north as Iowa and Illinois) and adjacent drainages of the southeastern United States. Frequents the bottom of rivers, lakes, sloughs, swamps and bayous (Herps of Texas, 2017a).	Suitable habitat for this species is found in all Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Northern scarlet snake [d] *Cemophora coccinea copei*	T – JE, OR	Liquefaction Texas Connector	Found from New Jersey, along the Atlantic Coast to Florida, and west to Texas and Oklahoma. Prefer soft, sandy or loamy soils for burrowing, occurring in forested areas as well as open areas such as agricultural fields and along borders of swamps and stream banks (Herps of Texas, 2017b).	Suitable habitat for this species is found in the Texas Connector Project area. Therefore, project may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
*Texas horned lizard [d] *Phrynosoma cornutum*	T – JE, OR	Liquefaction Texas Connector	Found from Kansas to Louisiana through Texas to New Mexico and northern Mexico. Prefers warm, sandy, arid environments and is typically found in flat, open areas with little vegetation. Breeding occurs in late spring upon emergence from hibernation. Females lay eggs in burrows (Herps of Texas, 2017c).	Suitable habitat for this species is not present in the Liquefaction or Texas Connector Projects area.
Timber rattlesnake [d] *Crotalus horridus*	T – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	Found in upland woods and rocky ridges in the eastern United States; the eastern third of Texas. Prefers moist lowland forests and hilly woodlands or thickets near permanent water sources such as rivers, lakes, ponds, streams and swamps where tree stumps, logs and branches provide refuge. They do not lay eggs; instead eggs are kept inside female's body until ready to hatch (TPWD, 2017a).	Suitable habitat for this species is found in the Liquefaction and Texas Connector Projects area. Therefore, these projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Texas diamondback terrapin [d, e] *Malaclemys terrapin littoralis*	R – JE, OR RH - CA	Liquefaction Texas Connector Louisiana Connector [f]	Found along the Atlantic and Gulf Coast shores of the United States, from Texas to Cape Cod and lives exclusively in brackish water, being the only turtle found in estuaries and saltwater marshes. Mating occurs in spring, and females nest in lightly vegetated, gently sloping shorelines above the high tide line (Herps of Texas, 2017d).	Suitable habitat for this species is found in the Liquefaction and Texas Connector Projects area. Therefore, these projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Bay skipper [d, e] *Euphyes bayensis*	R – JE	Liquefaction Texas Connector Louisiana Connector [f]	Lives only in tidal sawgrass marshes in Mississippi and Texas. Larval hostplant is unconfirmed but is likely sawgrass (*Cladium* sp.). There are two distinct flight periods, in late May and September. The separation between these suggests that the larvae may aestivate between the two, as well as hibernate during the winter. Both aestivation and hibernation are done as larvae, probably in the third or fourth instar (Vaughan and Shepherd, 2005).	Suitable habitat for this species is found in the Texas Connector Project area. Therefore, the project may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
Southern crawfish frog [d, e] *Lithobates areolatus*	R – JE	Liquefaction Texas Connector Louisiana Connector [f]	Found in eastern Oklahoma and Texas, as well as in western Louisiana. In Texas, found in scattered populations across the eastern third of the state. Habitat includes abandoned crawfish holes, small mammal burrows, and storm sewers. Nocturnal and rarely seen outside of burrows except during breeding season. Egg masses are laid in shallow water (Herps of Texas, 2017e).	Suitable habitat for this species is found in the Texas Connector Project area. Therefore, the project may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
*Chapman's orchid [d] *Platanthera chapmanii*	R – JE, OR	Liquefaction Texas Connector	Found in open wet meadows and savannas in the southern U.S., pine flatwoods, as well as in roadside ditches and on hillside seeps (Goedeke et al., 2015).	Suitable habitat for this species does not occur in the Texas Connector Project area. Therefore, impacts on this species are not expected.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
Awnless bluestem [d, e] *Bothriochloa exaristata*	R – JE	Liquefaction Texas Connector Louisiana Connector [f]	Found only along upper Gulf Coast from Brazoria and Fort Bend Counties northward, mostly in heavy, moist, black, clayey soils (Hatch et al., 1999).	Suitable habitat for this species is found in the Liquefaction and Texas Connector Projects area; however, individuals were not observed within the Projects area. Therefore, no direct impacts on this species are expected.
Large beakrush [d] *Rhynchospora macra*	R – JE	Liquefaction Texas Connector	Range includes Georgia, Florida panhandle to eastern Texas. Found in bogs and wet pine savannas and flatwoods (Godfrey and Wooten, 1979).	Suitable habitat for this species is found in the Texas Connector Project area; however, individuals were not observed during surveys and, therefore, no direct impacts on this species are expected.
Long-sepaled false dragon-head [d] *Physostegia longisepala*	R – OR	Texas Connector	Range includes West Gulf Coastal Plain of Louisiana and Texas in Hardin, Jasper, Newton, Orange, and Tyler Counties (Poole et al., 2007). Inhabits wet woods and ditches (Neyland, 2009).	Suitable habitat for this species is found in the Texas Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Gayfeather [g] *Liatris punctata*	R - CAL	Louisiana Connector	Native to North America, where it occurs throughout the plains of central Canada, the central United States, and northern Mexico. Habitat includes loess hills and prairies; prefers well-drained, sandy, calcareous soils (LBJWC, 2016).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Purple false-foxglove [g] *Agalinis filicaulis*	R – AL, BE, CAL	Louisiana Connector	Range includes Alabama, Florida, Louisiana, and Mississippi. Inhabits wet longleaf pine flatwoods savannahs and hillside seepage bogs (LDWF, 2017b).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Salt flat-grass [g] *Monanthochloe littoralis*	R – CAM	Louisiana Connector	Range includes California, Florida, Louisiana, Texas, Mexico, and Cuba. Inhabits coastal saline mud flats and salt marshes on bay shores and behind beaches (LDWF, 2017b).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Silveus dropseed [g] *Sporobolus silveanus*	R – BE, CAL	Louisiana Connector	Occurs in Louisiana and Texas. Inhabits wet or sandy soils in pinewoods or on blackland prairies(LBJWC, 2010).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Thyme-leaf pinweed [g] *Lechea minor*	R – CAL	Louisiana Connector	In dry open grounds, in eastern Massachusetts to Michigan, south to Florida and Louisiana. Habitat includes full sun in dry, sandy woods, clearings, roadside banks (NatureServe, 2017).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
Woolly plantain [g] *Plantago patagonica*	R – AL	Louisiana Connector	Native to much of North America and grows in many types of habitats including grassland and woodlands (USGS, 2018).	Suitable habitat for this species is found in the Louisiana Connector Project area; however, individuals were not observed during surveys. Therefore, no direct impacts on this species are expected.
Smalltooth sawfish [d] *Pristis pectinata*	E – JE	Liquefaction	Once prevalent throughout Florida and were commonly encountered from Texas to North Carolina. Currently, smalltooth sawfish can only be found with any regularity in south Florida between the Caloosahatchee River and the Florida Keys. Juvenile smalltooth sawfish generally inhabit the shallow coastal waters of bays, banks, estuaries, and river mouths, particularly shallow mud banks and mangrove habitats. Larger animals can be found in the same habitat but are also found offshore at depths up to at least 122 meters (NMFS, 2009).	Suitable habitat for this species is found in the Liquefaction Project area; however, this species is unlikely to be present in the Liquefaction Project area. Therefore, impacts on this species are not expected.
American eel [d, e] *Anguilla rostrata*	R – JE, OR	Liquefaction Texas Connector Louisiana Connector [f]	American eels can live in the saltwater Gulf, brackish coastal marshes or freshwater rivers and streams (TPWD, 2017c). Distribution in Texas includes Red River (from the mouth upstream to and including the Kiamichi River), Sabine Lake (including minor coastal drainages west to Galveston Bay), Galveston Bay (including minor coastal drainages west to mouth of Brazos River), Brazos River, Colorado River, San Antonio Bay (including minor coastal drainages west of mouth of Colorado River to mouth of Nueces River), Nueces River (Hassan-Williams and Bonner, 2007).	Suitable habitat for this species is found in the Liquefaction and Texas Connector Projects area. Therefore, the projects may affect this species through reducing quality and/or availability of habitat. Direct mortality of individuals during construction activities is also possible.
*Ironcolor shiner [d] *Notropis chalybaeus*	R – OR	Texas Connector	Found only in northeastern streams from the Sabine to the Red River apart from an isolated population found in the San Marcos River headwaters. Distribution in Texas includes the following drainage units: Red River (from the mouth upstream to and including the Kiamichi River), Sabine Lake (including minor coastal drainages west to Galveston Bay), San Antonio Bay (including minor coastal drainages west of mouth of Colorado River to mouth of Nueces River). Commonly inhabits small to medium sized streams that drain pine woodlands (Hassan-Williams and Bonner, 2007).	Suitable habitat for this species does not occur in the Texas Connector Project area. Therefore, impacts on this species are not expected.
Old prairie crawfish [g] *Fallicambarus macneesei*	R – CAL, STL	Louisiana Connector	This species is known from four localities in Calcasieu and Lafayette Parishes, and has recently been found in Jefferson Davis, Acadia, and St. Landry Parishes, Louisiana. This freshwater species is a primary burrower in temporary road side ditches with heavy alluvial clay substrates (Crandall and Johnson, 2010).	Species may occur in the Louisiana Connector Project area. See section 4.7.4 for a discussion of impacts on this species.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact
Louisiana pigtoe [d] *Pleurobema riddellii*	T – JE, OR	Liquefaction Texas Connector	Ranged from eastern Texas drainages into Louisiana but has been exceptionally rare in recent decades. Since the mid-1990s, small numbers of living specimens have been found in the Neches River and some of its tributaries and the Angelina River. Inhabits streams and moderate sized rivers usually with flowing water atop substrates of mud, sand, and gravel (TPWD, 2009).	Species may occur in waterbodies crossed by the Texas Connector Project. See section 4.7.4 for a discussion of impacts on this species.
Sandbank pocketbook [d, g] *Lampsilis satura*	T – JE, OR R – AL, BE, CAL	Liquefaction Texas Connector Louisiana Connector	Known from southern portions of the Mississippi interior basin and western Gulf drainages of Arkansas, Mississippi, Louisiana, and Texas, considered rare in all states from which it has been recorded. Observed in east Texas, south of Sulfur through the San Jacinto River basin as well as in the Neches River. Inhabits small to large rivers with moderate flows and swift currents atop gravel, gravel-sand, and sand substrates (TPWD, 2009).	Species may occur in waterbodies crossed by the Texas Connector and Louisiana Connector Projects. In Louisiana, suitable habitat occurs within Ouski Chitto Creek; however, impacts on this species would be minimized by use of the HDD crossing method at this waterbody. See section 4.6.2.2 regarding potential impacts due to inadvertent release of drilling mud during HDD. See section 4.7.4 for a discussion of impacts on this species.
*Southern hickorynut [d] *Obovaria jacksoniana*	T – JE, OR	Liquefaction Texas Connector	If the species still occurs in Texas at all, it may only persist on Village Creek. Observed in the Neches, Sabine, and Cypress River basins. Inhabits waterways with low to moderate currents atop medium sized gravel substrates (TPWD, 2009).	Suitable habitat for this species does not occur in the Texas Connector Project area. Therefore, impacts on this species are not expected.
Texas heelsplitter [d] *Potamilus amphichaenus*	T – JE, OR	Liquefaction Texas Connector	Restricted to the Sabine, Neches, and Trinity rivers of Texas. Inhabits waterways with low to moderate currents atop medium sized gravel substrates (TPWD, 2009).	Species may occur in waterbodies crossed by the Texas Connector Project. See section 4.7.4 for a discussion of impacts on this species.
*Texas pigtoe [d] *Fusconaia askewi*	T – JE, OR	Liquefaction Texas Connector	A regional endemic limited to a relatively small area in Texas and Louisiana, including the Trinity River above Lake Livingston, a tributary of the West Branch San Jacinto River, and the Sabine River above Toledo Bend Reservoir. Inhabits rivers with mixed mud, sand, and fine gravel substrate. This species is associated with protected areas that have fallen trees or other structures (TPWD, 2009).	Suitable habitat for this species does not occur in the Texas Connector Project area. Therefore, impacts on this species are not expected.
*Triangle pigtoe [d] *Fusconia lananensis*	T – JE, OR	Liquefaction Texas Connector	Endemic to the Neches and San Jacinto Rivers and Village Creek in eastern Texas, but extant populations are limited, and the ecological security of most occupied sites is marginal (TPWD, 2009). Inhabits rivers with mixed mud, sand, and fine gravel substrate (Howells, et al., 1996).	Suitable habitat for this species does not occur in the Texas Connector Project area. Therefore, impacts on this species are not expected.

APPENDIX P (cont'd)

State-listed and Rare Species Potentially Occurring in the Vicinity of the Projects

Common Name *Scientific Name*	State Status[a] Parish/County[b]	Project Components	Range/Habitat	Potential Impact

[a] State status includes: Endangered (E), Threatened (T), Rare (R), Restricted Harvest (RH).

[b] Parishes/counties include Cameron (CAM), Calcasieu (CAL), Beauregard (BE), Allen (AL), Evangeline (EV), and St. Landry (STL) parishes, Louisiana; Jefferson (JE) and Orange (OR) Counties, Texas.

[c] Species protected under the Migratory Bird Treaty Act (see section 4.5.3).

[d] Species identified as potentially occurring within the Texas Connector Project and Liquefaction Project areas by TPWD (letters dated May 9, 2016 and August 3, 2017, respectively).

[e] Species identified as potentially occurring within the Louisiana Connector Project area by TPWD (letter dated May 8, 2017).

[f] The Texas portion of the Louisiana Connector Project would be limited to workspace associated with the HDD, beginning within the proposed liquefaction site (which would largely be cleared of vegetation, converted to mixed industrial use, prior to construction of the Louisiana Connector Project) and exiting in Sabine Lake. Therefore, no impacts on the state-listed species identified by the TPWD are anticipated, and the Texas portion of the Louisiana Connector Project is not discussed further in this table.

[g] Species identified as potentially occurring within the Louisiana Connector Project area by LDWF (letter dated June 12, 2017).

APPENDIX Q

ROADS AND RAILROADS CROSSED BY THE TEXAS CONNECTOR AND LOUISIANA CONNECTOR PROJECTS

APPENDIX Q

Roads and Railroads Crossed by the Texas Connector and Louisiana Connector Projects

Milepost	Road/Railroad Name	Roadway Type	Crossing Method
TEXAS CONNECTOR PROJECT			
Southern Pipeline			
0.2	Unnamed/AR-S-1	Unpaved	HDD
2.2	Unnamed/ AR-S-2	Unpaved	HDD
3.2	State Hwy 87, Dowling Rd., S. 8th St., S. Gulfway Dr.	Paved	HDD
3.6	Unnamed/AR-S-4	Unpaved	HDD
5.0	Unnamed/AR-S-6	Unpaved	Push
7.3	Unnamed facility road/ AR-S-7	Unpaved	HDD
7.5	Unnamed facility road/ AR-S-8	Unpaved	Bore
Northern Pipeline			
1.8	Unnamed access /two track	Unpaved	HDD
2.4	Unnamed access /two track	Unpaved	HDD
5.3	Unnamed access /two track	Unpaved	HDD
5.6	Unnamed access /two track	Unpaved	HDD
6.0	Unnamed / AR-N-2	Unpaved	HDD
7.2	Unnamed/AR-N-3	Unpaved	Push
7.9	Unnamed/ AR-N-3	Unpaved	Open Cut
7.9	Unnamed/ AR-N-4	Unpaved	Open Cut
8.3	State Hwy 73	Paved	HDD
8.3	State Hwy 73/HO Mills Hwy	Paved	HDD
8.8	Unnamed access /two track	Unpaved	HDD
10.3	Unnamed access /two track	Unpaved	HDD
10.5	Unnamed access /two track	Unpaved	HDD
10.6	Unnamed access /two track	Unpaved	HDD
10.8	Unnamed access /two track	Unpaved	HDD
10.9	Unnamed access /two track	Unpaved	HDD
10.9	Unnamed access /two track	Unpaved	HDD
11.6	Unnamed access /two track /AR-N-9	Unpaved	HDD
11.7	Hwy 365/FM 365 Rd.	Paved	HDD
12.0	Unnamed access /two track	Unpaved	HDD
12.4	Unnamed/AR-N-10	Unpaved	Open Cut
13.1	Unnamed access/two track	Unpaved	HDD
13.1	Unnamed access/two track	Unpaved	HDD
13.2	Unnamed access/two track	Unpaved	HDD
14.8	Unnamed/ AR-N-14	Unpaved	Bore
15.3	Knauth Rd	Paved	Bore
15.3	Knauth Rd.	Paved	Bore
15.7	Unnamed/AR-N-15	Unpaved	Open cut
17.1	Hebert Rd.	Paved	Bore
17.4	Unnamed/AR-N-16	Unpaved	Open cut
17.6	State Spur 93	Paved	HDD
17.6	W Port Arthur Rd/State Spur 93	Paved	HDD
17.7	Unnamed	Unpaved	HDD
17.7	Unnamed access/two track	Unpaved	HDD
17.8	Unnamed access/two track	Unpaved	HDD
18.8	Unnamed/ AR-N-18	Unpaved	HDD
19.3	Unnamed/ AR-N-19	Unpaved	Open Cut
19.4	Unnamed	Unpaved	Open Cut

APPENDIX Q (cont'd)

Roads and Railroads Crossed by the Texas Connector and Louisiana Connector Projects

Milepost	Road/Railroad Name	Roadway Type	Crossing Method
19.7	Unnamed	Unpaved	Open Cut
19.8	Unnamed access/two track	Unpaved	HDD
20.0	Unnamed access/two track	Unpaved	HDD
20.1	Unnamed	Unpaved	HDD
20.3	Sulphur Plant Rd.	Paved	HDD
20.3	Sulphur Plant Rd	Paved	HDD
20.3	US Hwy 69	Paved	HDD
20.3	US Hwy 287	Paved	HDD
20.3	US Hwy 69	Paved	HDD
20.3	US Hwy 96	Paved	HDD
20.3	US Hwy 287	Paved	HDD
20.4	US Hwy 69 Access Rd.	Paved	HDD
20.3	Hwy 69 Access Rd.	Paved	HDD
20.4	State Hwy 347	Paved	HDD
20.4	State Hwy 347	Paved	HDD
20.4	State Hwy 347	Paved	HDD
20.4	State Hwy 347	Paved	HDD
20.4	Hwy 380 Access Rd.	Paved	HDD
20.4	Highway 380 Access Rd.	Paved	HDD
20.8	Unnamed	Paved	HDD
22.4	Unnamed/ AR-N-24	Unpaved	HDD
23.5	Unnamed/ AR-N-25	Unpaved	HDD
26.4	S Mansfield Ferry Rd	Paved	Bore
26.4	S. Mansfield Ferry Rd.	Paved	Bore
FGT Lateral			
0.3	S. Main St/FM 105	Paved	Bore
0.5	Byron Rd.	Unpaved	Open Cut
1.0	Unnamed	Unpaved	HDD
1.2	Unnamed/ AR-FGT-2	Unpaved	HDD
1.8	S. Main St./FM 105/AR-FGT-3	Paved	Bore
TETCO Lateral			
0.0	S. Mansfield Ferry Rd.	Paved	Bore
HPL Lateral			
0.1	S. Mansfield Ferry Rd.	Paved	Bore
0.1	S. Mansfield Ferry Rd	Paved	Bore
GTS Lateral			
0.4	Unnamed access/two track	Unpaved	Open Cut
0.7	Amco Rd Exn	Unpaved	HDD
0.7	Unnamed facility road	Unpaved	HDD
0.7	Unnamed facility road	Unpaved	HDD
0.8	Unnamed facility road	Unpaved	HDD
1.0	Spindletop Ave.	Unpaved	HDD
NGPL Lateral			
0.0	Unnamed/ AR-S-4	Unpaved	Bore
KMLP Lateral			
0.0	Unnamed facility road	Unpaved	Open Cut
0.1	Unnamed facility road	Unpaved	Open Cut
LOUISIANA CONNECTOR PROJECT			
0.2	State Hwy 87 / S Gulfway Dr	Paved	HDD

APPENDIX Q (cont'd)

Roads and Railroads Crossed by the Texas Connector and Louisiana Connector Projects

Milepost	Road/Railroad Name	Roadway Type	Crossing Method
0.5	State Hwy 82 / Martin Luther King Jr Dr	Paved	HDD
0.7	S Levee Rd	Unpaved	HDD
26.1	Unnamed Rd	Unpaved	Upland
35.1	Gum Cove Rd	Unpaved	Bore
35.8	Unnamed Rd	Unpaved	Open Cut
36.5	Unnamed Rd	Unpaved	Open Cut
36.7	Unnamed Rd	Unpaved	Open Cut
37.6	Unnamed Rd	Unpaved	Open Cut
38.5	Unnamed Rd	Unpaved	Open Cut
38.7	Unnamed Rd	Unpaved	HDD
38.9	Unnamed Rd	Unpaved	HDD
39.9	Unnamed Rd	Unpaved	Open Cut
40.4	Unnamed Rd	Unpaved	HDD
40.7	Charlie Moss Rd	Paved	Bore
40.8	Charlie Moss Rd	Paved	Bore
41.1	Choupique Rd	Paved	Bore
41.2	Unnamed Rd	Unpaved	Open Cut
41.5	Unnamed Rd	Unpaved	Open Cut
42.6	Murl Ellender Rd	Paved	Bore
43.9	John Brannon Rd	Paved	Bore
44.5	State Rte 108	Paved	Bore
45.0	Augie Lyons Rd	Paved	Bore
45.6	W Cotton Vincent Rd	Paved	Bore
45.8	Deere Ln	Paved	Bore
46.6	W Dave Dugas Rd	Paved	Bore
47.6	Walker Rd	Paved	HDD
48.6	Currie Dr	Paved	Bore
50.1	Interstate Hwy 10 (Eastbound)	Paved	HDD
50.1	Interstate Hwy 10 (Westbound)	Paved	HDD
51.3	US Hwy 90 / W Napoleon St	Paved	Bore
51.7	Kim St	Paved	Bore
51.8	Union Pacific Railroad	Railroad	Bore
52.2	W Burton St	Paved	Bore
52.8	Unnamed Rd	Unpaved	Upland
53.1	Unnamed Rd	Unpaved	Open Cut
55.4	W Houston River Rd	Paved	Bore
56.6	Koonce Rd	Paved	Bore
57.4	Unnamed Rd	Unpaved	HDD
57.9	Unnamed Rd	Unpaved	Upland
59.0	Unnamed Rd	Unpaved	Open Cut
59.7	State Rte 27	Paved	HDD
59.9	Bankens Rd	Paved	HDD
59.9	Kansas City Southern Railroad	Railroad	HDD
59.9	Kansas City Southern Railroad	Railroad	HDD
59.9	Kansas City Southern Railroad	Railroad	HDD
61.1	Unnamed Rd	Unpaved	Upland
61.6	Unnamed Rd	Unpaved	Open Cut
63.0	Holbrook Park Rd	Paved	Bore
63.6	Unnamed Rd	Unpaved	Upland

APPENDIX Q (cont'd)

Roads and Railroads Crossed by the Texas Connector and Louisiana Connector Projects

Milepost	Road/Railroad Name	Roadway Type	Crossing Method
64.7	Unnamed Rd	Unpaved	Open Cut
66.1	Unnamed Rd	Unpaved	Open Cut
66.1	Unnamed Rd	Unpaved	Open Cut
68.2	Unnamed Rd	Unpaved	Open Cut
68.4	Parish Rd 125 / Camp Edgewood Rd	Paved	Bore
70.6	US Hwy 171 (Southbound)	Paved	Bore
70.6	US Hwy 171 (Northbound)	Paved	Bore
71.4	Unnamed Rd	Unpaved	Upland
72.6	Parish Rd 138 / Coanie Jackson Rd	Paved	Bore
76.4	Parish Rd 152 / Texas Eastern Rd	Paved	Bore
76.7	Edna Guillery Rd	Unpaved	Open Cut
77.6	Unnamed Rd	Unpaved	Upland
77.9	Unnamed Rd	Unpaved	Upland
79.8	Topsy Bel Rd	Paved	Bore
80.4	Lyles Cemetery Rd	Paved	Open Cut
81.4	Unnamed Rd	Unpaved	Upland
81.5	Unnamed Rd	Unpaved	Upland
81.9	Unnamed Rd	Unpaved	Open Cut
83.0	Lyles St	Paved	Open Cut
85.0	AR-ALL-04	Unpaved	Upland
85.8	Snooky's Rd	Paved	Bore
86.2	Geeter Parker Rd	Unpaved	Open Cut
87.4	Union Pacific Railroad	Railroad	Bore
87.4	US Hwy 190	Paved	Bore
88.1	Parish Rd 105 / Walker Rd	Paved	Bore
89.4	Methodist Camp Rd	Paved	Bore
89.9	Gill Rd	Paved	Open Cut
90.7	Shorty Rawlings Rd	Unpaved	Open Cut
90.8	J Potter Rd	Unpaved	Open Cut
92.6	Carpenters Bridge Rd	Paved	Open Cut
93.1	Rester Rd	Paved	Bore
93.5	Dempsey Langley Rd	Paved	Open Cut
95.7	Green Oak Rd	Paved	Bore
96.4	Green Oak Cemetery Rd	Unpaved	Open Cut
96.9	US Hwy 165 (Southbound)	Paved	HDD
96.9	US Hwy 165 (Northbound)	Paved	HDD
96.9	Union Pacific Railroad	Railroad	HDD
97.0	Botley Cemetery Rd	Paved	Open Cut
97.7	Botley Cemetery Rd	Unpaved	Open Cut
98.0	Unnamed Rd	Unpaved	Open Cut
99.8	Parish Rd 4-190E / Lauderdale Woodyard Rd	Paved	Bore
101.2	Unnamed Rd	Unpaved	Upland
101.8	Unnamed Rd	Unpaved	Upland
102.3	Unnamed Rd	Unpaved	Upland
102.9	Parish Rd 193 / Powell Rd	Paved	Bore
103.5	Ethel Williams Rd	Paved	Bore
103.6	Lafleur Rd	Unpaved	Open Cut
104.9	Bel Oil Rd	Paved	Bore
106.0	State Rte 26	Paved	Bore

APPENDIX Q (cont'd)

Roads and Railroads Crossed by the Texas Connector and Louisiana Connector Projects

Milepost	Road/Railroad Name	Roadway Type	Crossing Method
107.0	Miller Rd	Unpaved	Open Cut
108.0	Briscoe Rd	Paved	Bore
110.3	Hunter Rd	Paved	HDD
110.9	Unnamed Rd	Unpaved	Upland
111.5	L'anse de Haissable Rd	Unpaved	Open Cut
112.2	Ruby Rd	Unpaved	Open Cut
113.2	Unnamed Rd	Unpaved	Open Cut
113.3	Unnamed Rd	Unpaved	Open Cut
113.4	L'anse aux Vaches Rd	Unpaved	Open Cut
114.1	State Rte 3277 / George Soileau Rd	Paved	Bore
114.7	Lucky Ln	Unpaved	Open Cut
115.7	Valentine Rd	Unpaved	Open Cut
116.8	Emery Rd	Unpaved	Open Cut
117.3	McClelland Rd	Paved	Bore
117.6	Unnamed Rd	Unpaved	Open Cut
117.8	Plenny Rd	Unpaved	Open Cut
120.9	State Rte 13	Paved	Bore
121.2	Unnamed Rd	Unpaved	Upland
121.7	Parish Rd 6-275 / Soileau Rd	Paved	Bore
121.8	Unnamed Rd	Unpaved	Open Cut
122.0	Parish Rd 6-280 / Bobby Rd	Unpaved	Open Cut
122.4	Unnamed Rd	Unpaved	Upland
123.5	Parish Rd 6-270 / Carl Loewer Rd	Paved	Bore
123.7	State Rte 29	Paved	Bore
125.0	Rougeau Rd	Unpaved	Open Cut
125.5	Parish Rd 6-265-1 / Brown Rd	Unpaved	Open Cut
125.8	State Rte 758	Paved	Bore
127.5	State Rte 95 / Etienne Rd	Paved	Bore
129.6	Parish Rd 6-110 / Joe W Rd	Unpaved	Open Cut
130.1	Parish Rd 6-105 / Belleau Rd	Unpaved	Open Cut
130.6	Parish Rd 6-90-1 / Pitre Ln	Paved	Bore
Egan Lateral			
0.0	L'anse aux Vaches Rd	Unpaved	Upland
Pine Prairie Tie-in #1			
0.0	Lucky Ln	Unpaved	Upland
Pine Prairie Tie-in #2			
0.0	Lucky Ln	Unpaved	Upland

APPENDIX R

REFERENCES

Appendix R

References

Abbott, R., E. Bing-Sawyer, & R. Blizard. 2002. Assessment of pile driving impacts on the Sacramento blackfish (Othodon microlepidotus). Draft report prepared for Caltrans District 4. October 10, 2002. Sacramento, CA.

ABS Consulting, Inc. 2004. Seismic Hazard Assessment of Sempra Energy LNG Corporation's LNG Terminal Site, Port Arthur, Texas.

Allen, Williford & Seale, Inc. 2014. Pipeline Impact Study: Study of a Williams Natural Gas Pipeline on Residential Real Estate: Saddle Ridge Subdivision, Dallas Township, Luzerne County, Pennsylvania.

Arbor Day Foundation. 2017. Tree Guides. Available at: https://www.arborday.org/Trees/TREEGUIDE/TreeDetail.cfm?itemID=867

Audubon Texas. 2017. Colonial Waterbirds. Available at: http://tx.audubon.org/colonial-waterbirds. Accessed Februry 2017.

Batzer, D. & R. Sharitz. 2014. Ecology of Freshwater and Estuarine Wetlands. p. 287-352. University of California Press. Available at: http://www.jstor.org/stable/10.1525/j.ctt9qh2s6.15. Accessed January 2018

Beaumont Convention & Visitors Bureau. 2017. Available at: http://www.beaumontcvb.com/hotels/

Benítez-López, Ana, Rob Alkemade, & Pita A. Verweij. 2010. The impacts of roads and other infrastructure on mammal and bird populations: A meta-analysis. Biological Conservation. p. 1307-1316

Bennett, AF. 1991. Roads, roadsides and wildlife conservation: a review. Nature Conservation 2: The Role of Corridors. p. 99-117

Bernreuter, D.L., J.B. Savy, R.W. Mensing, & J.C. Chen. 1989. "Seismic Characterization of 69 Nuclear Plant Sites East of the Rocky Mountains: Results and Discussions for Batch 4 Sites". Washington, D.C. US Nuclear Regulatory Commission, NUREG/CR-5250, Vol. 5, p. 247.

BirdLife International. 2016. Important Biodiversity Areas. Available at: https://www.birdlife.org/worldwide/programme-additional-info/important-bird-and-biodiversity-areas-ibas

Boutwell, G.P., M.S. Nataraj, & and K.L. McManis. 2000. "Deep Foundations on Brownfields Sites". Proceedings of the 5th Conference on Environmental Problems in Eastern Europe. Prague, Czech Republic.

Bowman, R., D. L. Leonard, L. M. Richman, & L. K. Backus. 1997. Demography of the red-cockaded woodpecker at the Avon Park Air Force Range. Report Number F08602-96-D0015. Archbold Biological Station, Lake Placid, FL.

Bureau of Economic Geology. 1996. Physiographic Map of Texas. Bureau of Economic Geology of The University of Texas at Austin. Available at: http://www.beg.utexas.edu/UTopia/images/pagesizemaps/physiography.pdf.

Burton, M.L. 2000. Age, growth, and mortality of gray snapper, Lutjanus griseus, from the east coast of Florida. Center for Coastal Fisheries and Habitat Research National Marine Fisheries Service, NMFS. Beaufort, North Carolina

Butcher, Russel. 2008. America's National Wildlife Refuges: A Complete Guide. Taylor Trade Publications. Lanham, Maryland

Cameron Parish Tourist Commission. 2017. Available at: http://www.visitcameronparish.org/sleep

Carillo, M. & F. Ritter. 2010. Increasing numbers of ship strikes in the Canary Islands: proposals for immediate action to reduce risk of vessel-whale collisions. Journal of Cetacean Research and Management. 11(2): 131-138, 2010.

Caterpillar. 2012. VM 32 C Project Guide: Generator Set. Caterpillar Motorem Gmblt & Co. KG. Kiel. Germany. August 2012.

Center for Chemical Process Safety of the American Institute of Chemical Engineers. 1996. Guidelines for Evaluating Process Plant Buildings for External Explosions and Fires. Wiley Inter-Science. New York. NY

Central Dredging Association. 2011. Underwater Sounds – In Relation to Dredging. Available at: https://dredging.org/documents/ceda/downloads/2011-11_ceda_positionpaper_underwatersound.pdf

CH2M Hill. 2013. Coastal Zone Management Act Consistency Certification for the Oregon LNG Bidirectional Project.

Chastain, Aaron. 2017. June 22, 2017 Email to Jude LeDoux regarding EFH for Proposed Port Arthur LNG - Louisiana Connector Pipeline.

Cheatwood, Twyla. 2017. June 20, 2017 Email to Jude LeDoux regarding EFH for Proposed Port Arthur LNG - Louisiana Connector Pipeline.

Cheniere Energy. 2017. Available at: http://www.cheniere.com/terminals/sabine-pass/trains-1-6/. Accessed November 2017

Cheniere Energy. 2017. Terminals, Sabine Pass LNG Terminal. Available at: http://www.cheniere.com/terminals/sabine-pass/. Accessed September 2017.

Cision PRNewsWire. 2015. Columbia Pipeline Group Announces Federal Approval for Cameron Access Project. September 21, 2015. Available at: https://www.prnewswire.com/news-releases/columbia-pipeline-group-announces-federal-approval-for-cameron-access-project-300146184.html. Accessed September 2017.

City of Port Arthur. 2017. Coastal Area Map (Sabine Pass Area – City of Port Arthur Zoning Map). Available at: http://www.portarthurtx.gov/245/Maps. Accessed September 2017.

Cornell Lab of Ornithology. 2017a. eBird: Explore Hotspots. Available at: https://ebird.org/hotspots. Accessed September 2017.

Cornell Lab of Ornithology. 2017b. Bird Guide: Red Knot. Available at: https://www.allaboutbirds.org/guide/Red_Knot/lifehistory. Accessed September 2017.

Cortés, E. 2009. Rhizoprionodon terraenovae. The IUCN Red List of Threatened Species 2009: e.T39382A10225086. Available at: http://dx.doi.org/10.2305/IUCN.UK.2009-2.RLTS.T39382A10225086.en Accessed in November 2017

Cortés, E., D. Lowry, D. Bethea, & C.G. Lowe. 2016. Sphyrna tiburo. The IUCN Red List of Threatened Species 2016: e.T39387A2921446. Available at: http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T39387A2921446.en Accessed in November 2017

Council on Environmental Quality (CEQ). 1997. Environmental Justice, Guidance under the National Environmental Policy Act. Executive Office of the President. Washington, DC.

CEQ. 2005. Memorandum: Guidance on the Consideration of Past Actions in Cumulative Effects Analysis. Issued June 24, 2005.

Cowardin, L.M., V. Carter, F.C. Golet, & E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31.Washington, D.C.

Crandall, K.A. & D. Johnson. 2010. Fallicambarus macneesei. The IUCN Red List of Threatened Species 2010: e.T153889A4559162. Available at: http://dx.doi.org/10.2305/IUCN.UK.2010-3.RLTS.T153889A4559162.en. Downloaded on 10 November 2017.

Crone, A.J. & R.I. Wheeler. 2000. Data for Quaternary faults, liquefaction features, and possible tectonic features in the Central and Eastern United States, east of the Rocky Mountain Front. U.G. Geological Survey Open File Report 00-260. Available at: http://pubs.usgs.gov/of/2000/ofr-00-0260/ofr-00-0260.pdf. Accessed January 2017.

Davis, William B. & David J. Schmidly. 1994. The mammals of Texas, Online Edition. Available at: http://www.nsrl.ttu.edu/tmot1/tricmana.htm. Accessed on September 15, 2015

DeGraaf, Richard M., & William M. Healy. 1990. Is forest fragmentation a management issue in the Northeast?. Gen. Tech. Rep. NE-140. Radnor, PA: U. S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 32 p.

Diskin, Barry A, Jack P. Friedman, Sepero C. Peppas, & Stephanie R. Peppas. 2011. The Effect of Natural Gas Pipelines on Residential Value. Available at: http://pstrust.org/docs/web_jan_NaturalGas-1.pdf.

Driftwood LNG LLC. 2017 . Driftwood LNG Proposed Project Schedule. Available at: http://driftwoodlng.com/. Accessed October 2017.

Edison Electric Institute. 2016. Transmission Projects: At A Glance, December 2016. Available at: http://www.eei.org/issuesandpolicy/transmission/Documents/Trans_Project_lowres_bookmarked.pdf. Accessed September 2017.

Energy Transfer. 2017. Bayou Bridge Project Website. Available at: http://www.energytransfer.com/ops_lc_sj.aspx. Accessed September 2017.

Environmental Data Resources, Inc. 2015. EDR Data Map and Environmental Atlas. Inquiry Number 01283928. 1r. Milford Connecticut. June 18, 2015.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Wetlands Research Program Technical Report Y-87-1 (on-line edition). January, 1987.

Federal Emergency Management Agency. 2013. Preliminary Flood Insurance Study of Jefferson County, Texas. January 2013.

Federal Highway Administration. 2017. Planning Glossary. Available at: https://www.fhwa.dot.gov/planning/glossary/

Fenneman, Nevin M. 1928. Physiographic Divisions of the United States. Annals of the Association of American Geographers Volume XVIII No. 4. December 1928. Pp 261-353.

Fisher. W. L., L. F. Brown, J. H. McGowan, & C. G. Groat. 1973. Environmental Atlas of the Texas Coastal Zone – Beaumont-Port Arthur Area. Bureau of Economic Geology, University of Texas at Austin. 93p.

Florida Museum of Natural History (FLMNH). 2018a. Bull Shark (Carcharhinus leucas) Fact Sheet. Available at: https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/carcharhinus-leucas/. Accessed January 2018.

FLMNH. 2018b. Scalloped Hammerhead (Sphyrna lewini). Ichthyology Collection, Dickinson Hall, Gainesville, FL. Accessed November 2017: https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/sphyrna-lewini

FLMNH. 2018c. Lemon Shark (Negaprion brevirostris). Accessed November 2017: https://www.floridamuseum.ufl.edu/fish/discover/species-profiles/negaprion-brevirostris/

FLMNH. 2018d. Atlantic Sharpnose Shark (Rhizoprionodon terraenovae). Accessed November 2017: Available at: https://www.floridamuseum.ufl.edu/discover-fish/species-profiles/rhizoprionodon-terraenovae/

Fossilworks. 2017. Fossilworks – Gateway to Paleobiology Database. Available at: http://fossilworks.org/. Searched January 2017.

Fountain, Larry. 2016. Use of Placement Areas for Dredged Material in Proximity to the Port Arthur Liquefaction Project, Jefferson County, Texas. E-mail. August 2016.

Frankel, A., C. Mueller, T. Barnhard, D. Perkins, E.V. Leyendecker, N. Dickman, S. Hanson, & M. Hopper. 1996. “National Seismic-Hazard maps: Documentation, June 1996”. Denver, CO. U.S. Geological Survey Open-File Report 96-532, 41 p. Available at: https://pubs.usgs.gov/of/1996/532/OFR-96-532_508.pdf.

Frankel, A.D., M.D. Petersen, C.S. Muller, K.M. Haller, R.L. Wheeler, E.V. Leyendecker, R.L. Wesson, S.C. Harmsen, C.H. Cramer, D.M. Perkins, & K.S. Rukstales. 2002. “Documentation for the 2002 Update of the National Seismic Hazard Maps”. U.S. Geological Survey, Open-File Report 02-420, 33 p. Available at: https://pubs.usgs.gov/of/2002/ofr-02-420/OFR-02-420.pdf.

Fruits, E. 2008. Natural Gas Pipelines and Residential Property Values: Evidence from Clackamas and Washington Counties. Available at: http://pstrust.org/docs/NGPipesPropertyValues.pdf.

Fugro Consultants, Inc. (Fugro). 2016. Phase II Detailed Fault Study – Port Arthur LNG Liquefaction Project, Port Arthur, Texas. Report No. 04.10150241. March 2016.

Fugro. 2017a. Geotechnical Study – Port Arthur LNG Project, Port Arthur, Texas. Report No. 04.10150037. January 2017.

Fugro. 2017b. Seismic Hazard Assessment – Port Arthur LNG Project, Port Arthur, Texas. Report No. 04.10150037-2. January 2017.

Gagliano, S.M. 1999. Faulting. Subsidence and Land Loss in Coastal Louisiana. Prepared by Coastal Environments. Inc. and Lee Wilson & Associates for U.S. Environmental Protection Agency. Region 6. Contract No. 68-06-0067.

Griffith, Glenn, Sandy Bryce, James Omernik, & Anne Rogers. 2007. Ecoregions of Texas.

Godfrey, Robert K. & Jean W. Wooten. 1979. Aquatic and Wetland Plants of Southeastern United States.

Goedeke, T., J. Sharma, A. Treher, A. Frances, & K. Poff. 2015. Platanthera chapmanii. The IUCN Red List of Threatened Species 2015: e.T64176634A64176638.http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T64176634A64176638.en. Accessed February 2018.

Gosselink, J.G., C.L. Corders, & J.W. Parsons. 1979. An ecological characterization study of the Chenier Plain coastal ecosystem of Louisiana and Texas. 3 volumes. U.S. Fish and Wildlife Service, Office of Biological Services. FWS/OBS-78-9 through 78/11.

Gulf of Mexico Fishery Management Council (GMFMC). 1998. Generic Amendment for Addressing Essential Fish Habitat Requirements in the following Fishery Management Plans of the Gulf of Mexico. Tampa, Florida.

GMFMC. 2016. Draft Report - Review of Essential Fish Habitat Requirements, Habitat Areas of Particular Concern, and Adverse Effects of Fishing in the Fishery Management Plans of the Gulf of Mexico. August 2016.

GMFMC. n.d. Summary Table of Spanish Mackerel. Available at: https://www.gsmfc.org/pubs/Habitat/tables/Spanishmackerel.pdf

Hansen, J. L. and D.A. 2006. Environmental Hazards and Residential Property Values: Evidence from a Major Pipeline Event. November 2006. 82(4): 529-541.

Hanson, K.A., K.I., Kelson, M.A. Angell, & W.R. Lettis. 1999. “Techniques for Identifying Faults and Determining Their Origins”. Washington, D.C. US Nuclear Regulatory Commission. NUREG/CR-5503, p. 461. Available at: https://www.nrc.gov/docs/ML0930/ML093070145.pdf.

Hassan-Williams, Carla & Timothy H. Bonner. 2007. Texas Freshwater Fishes. Available at: http://txstate.fishesoftexas.org/anguilla%20rostrata.htm. Accessed February 2017.

Hatch, Steven L., Joseph L. Shuster, & D. Lynn Drawe. 1999. Grasses of the Texas Gulf Prairies and Marshes. College Station: Texas A&M University.

Hayhoe, K., D.J. Wuebbles, D.R. Easterling, D.W. Fahey, S. Doherty, J. Kossin, W. Sweet, R. Vose, and M. Wehner. 2018. Our Changing Climate. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 72–144. doi: 10.7930/NCA4.2018.CH2

Herps of Texas. 2017a. Alligator Snapping Turtle. Available at: http://www.herpsoftexas.org/content/alligator-snapping-turtle. Accessed February 2017.

Herps of Texas. 2017b. Scarletsnake. Available at: http://www.herpsoftexas.org/content/scarletsnake. Accessed February 2017.

Herps of Texas. 2017c. Texas Horned Lizard. Available at: http://www.herpsoftexas.org/content/texas-horned-lizard. Accessed February 2017.

Herps of Texas. 2017d. .Diamond-backed Terrapin. Available at: http://www.herpsoftexas.org/content/diamond-backed-terrapin. Accessed February 2017.

Herps of Texas. 2017e. Crawfish Frog . Available at: http://www.herpsoftexas.org/content/crawfish-frog. Accessed February 2017.

Hooper, R. G., & M. R. Lennartz. 1981. Foraging behavior of the red-cockaded woodpecker in South Carolina. Auk 98:321-334.

Howells, Robert G., Raymond W. Neck, & Harold D. Murray. 1996. Freshwater Mussels of Texas. Texas Parks & Wildlife Department, Inland Fisheries Division.

ICF Jones & Stokes. 2012. Technical Noise Supplement. November. Prepared for California Department of Transportation, Sacramento, CA.

International Conference of Building Officials. 2015. 2015 Uniform Building Code. Available at: http://www.iccsafe.org.

International Whaling Commission. 2014. Ship Strike Database. Available at: https://iwc.int/index.php?cID=872&cType=document. Accessed September 2018.

Jefferson Central Appraisal District. 2017. GIS Online Mapping. Available at: https://jeffersontx.mygisonline.com/. Accessed September 20, 2017.

Jones, C., J. McCann, & S. McConville. 2000. A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area. Maryland Department of Natural Resources. Available at: http://dnr.maryland.gov/criticalarea/Documents/forms_navbar/tweetyjune_2000.pdf

Jones, D.J., G.S. Kramer, D.N. Gideon, & R.J. Eiber. 1986. “An Analysis of Reportable Incidents for Natural Gas Transportation and Gathering Lines 1970 through June 1984.” American Gas Association. NG-18 Report No. 158, Pipeline Research Committee of the American Gas Association.

Kosters, E.C., D.G. Bebout, & S.J. Seni. 1989. "Atlas of Major Texas Gas Reservoirs: Gas Research Institute and Bureau of Economic Geology." University of Texas at Austin.

Kroodsma, R.L. 1984. Effect of edge on breeding forest bird species. Wilson Bul, 96(3), pp 426-436.

Lady Bird Johnson Wildlife Center. 2010. Sporobolus silveanus. Available at: http://www.wildflower.org/plants/result.php?id_plant=SPSI2. Accessed February 2017.

Lady Bird Johnson Wildlife Center. 2016. Liatris punctata. Available at: https://www.wildflower.org/plants/result.php?id_plant=lipu. Accessed February 2017.

Lake Charles Convention & Visitors Bureau. 2017. Louisiana's Western Corridor. Available at: https://www.visitlakecharles.org/listings/louisianas-western-corridor/148403/. Accessed September 2017.

Ligon, J. D. 1968. Sexual differences in foraging behavior in two species of Dendrocopus woodpeckers. Auk 85:203-215.

Louisiana Department of Environmental Quality (LDEQ). 2001. State of Louisiana Source Water Assessment Program. Appendix M: Surface Water Intakes by Parish. Available at: http://www.deq.louisiana.gov/portal/default.aspx?tabid=2181 Accessed February, 2017.

LDEQ. 2009a. Chicot Aquifer Summary, 2008. Appendix 10 to the 2009 Triennial Summary Report. Baton Rouge, Louisiana. Available at: http://www.deq.louisiana.gov/portal/Portals/0/evaluation/aeps/10ChicotAquiferSummary09-1.pdf. Accessed February 2017.

LDEQ. 2009b. Mississippi River Alluvial Aquifer Summary, 2008. Appendix 8 to the 2009 Triennial Summary Report. Baton Rouge, Louisiana. Available at: http://www.deq.louisiana.gov/portal/Portals/0/evaluation/aeps/08MississippiRiverAlluvialAquiferSummary09.pdf. Accessed February 2017.

LDEQ. 2016. Louisiana Water Quality Inventory: Integrated Report (305[b]/303[d]).

LDEQ, 2017. Brownfields. Available at: http://deq.louisiana.gov/page/brownfields. Accessed February 2017.

LDEQ, 2017. Superfund Sites. Available at: http://deq.louisiana.gov/resources/category/superfund-sites. Accessed February 2017.

LDEQ, 2017. Underground Storage Tank Program. Available at: http://deq.louisiana.gov/page/underground-storage-tank. Accessed February 2017.

Louisiana Department of Natural Resources (LDNR). 2012. Managing Louisiana's Groundwater Resources With Supplemental Information on Surface Water Resources – An Interim Report to the Louisiana Legislature. Available at: http://www.dnr.louisiana.gov/assets/docs/conservation/groundwater/12.Final.GW.Report.pdf. Accessed February 2017.

LDNR. 2014. Office of Conservation Update on Statewide Groundwater Management, Letter from J. Walsh (Commissioner of Conservation) dated December 8, 2014.

LDNR. 2017a. Strategic Online Natural Resources Information System Available at: http://sonris-www.dnr.state.la.us/gis/agsweb/IE/JSViewer/index.html?TemplateID=181 Accessed January 2017.

LDNR. 2017b. Office of Coastal Management. Available at: http://www.dnr.louisiana.gov/index.cfm/page/85. Accessed November 2017.

Louisiana Department of Transportation and Development and U.S. Geological Survey (USGS). 1999. Distribution of Saltwater in the Chicot Aquifer System of Southwestern Louisiana, 1995-96. Water Resources Technical Report No. 66. Baton Rouge, Louisiana.

Louisiana Department of Transportation and Development and USGS. 2011. Water Use in Louisiana, 2010. Water Resources Special Report No. 17. Revised December 2012. Baton Rouge, Louisiana. https://la.water.usgs.gov/publications/pdfs/WaterUse2010.pdf. Accessed February 2017.

Louisiana Department of Wildlife and Fisheries (LDWF). 2016. Letter dated April 20, 2016 from A. Bass (LDWF) to C. Sedberry (AECOM).

LDWF. 2017a. Louisiana Natural and Scenic Rivers Descriptions and Map. Available at: http://www.wlf.louisiana.gov/louisiana-natural-and-scenic-rivers-descriptions-and-map. Accessed September 2017.

LDWF. 2017a. Rare Animal Species – Tracking List and Fact Sheets. Available at: http://www.wlf.louisiana.gov/wildlife/rare-animals-fact-sheets. Accessed February 2017.

LDWF. 2017b. Rare Plant Species – Tracking List and Fact Sheets. Available at: http://www.wlf.louisiana.gov/wildlife/rare-plant-species. Accessed February 2017.

LDWF. 2017b. Letter dated July 12, 2017 from C. Perry (LDWF) to B. Newman (CK Associates).

LDWF. 2018. E-mail dated February 27, 2018 from E. Baka (LDWF) to T. Wharton (CK Associates).

Louisiana Geographic Center. 1999. LOSCO Environmental Baseline Inventory Dataset. Drinking Water Sources with Surface Intakes from LDHH source data, Geographic NAD83 (drinking_water_surface_intakes_LDHH_1999])

Louisiana Office of Tourism. 2017a. Overview - Myths and Legends Scenic Byway. Available at: http://www.louisianabyways.com/byway/myths-and-legends-byway. Accessed September 2017.

Louisiana Office of Tourism. 2017b. Louisiana Scenic Byways Program. Available at: http://www.louisianabyways.com/about. Accessed September 2017.

Louisiana State Legislature. 2017. Revised Statute (RS), Title 56, Section1843. Available at: http://legis.la.gov/legis/Law.aspx?d=104991. Accessed September 2017.

Louisiana State University. 2013. SURGEDAT: The World's Storm Surge Data Center. Available at: http://surge.srcc.lsu.edu/. Accessed January 2017.

Marx, J.M., & W.F. Herrnkind. 1986. Species profiles: Life histories and environmental requirements of coastal fishes and invertebrates (South Florida)--spiny lobster. U.S. Fish Wildlife. Service Biol. Rep. 82(11.61). U.S. Army Corps of Engineers, TR EL-82-4. 21 p.

McKenna, K.K. 2014. Texas Coastwide Erosion Response Plan – 2013 Update. Final Reort to the Texas General Land Office. December 2014. Available at: http://www.glo.texas.gov/coast/coastal-management/forms/files/coastwide-erosion-response-plan.pdf. Accessed September 2017.

Melillo, Jerry M., Terese (T.C.) Richmond, & Gary W. Yohe, Eds. 2013. 2014: Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program, 841 p. doi:10.7930/J0Z31WJ2.

Missouri Department of Conservation (MDC). 2017. Best Management Practices for Construction and Development Projects – Plains Spotted Skunk. Available at: https://mdc.mo.gov/sites/default/files/downloads/Plains%20Spotted%20Skunk.pdf. Accessed September 2017.

Municipal Code Corporation (MCC). 2015. Evangeline Parish Police Jury Code of Ordinances. Available at: https://library.municode.com/la/evangeline_parish_police_jury/codes/code_of_ordinances?nodeId=CH22OFMIPR

MCC. 2016a. Code of Ordinances. City of Port Arthur, Texas. Available at: https://library.municode.com/index.aspx?clientId=11444

MCC. 2016b. Code of Ordinances. Parish of Cameron, Louisiana. Available at: https://library.municode.com/index.aspx?clientId=10503

National Geographic. 2017. National Geographic Animals: Blacktip Shark. Accessed November 2017: Available at: https://www.nationalgeographic.com/animals/fish/b/blacktip-shark/

National Marine Fisheries Service (NMFS). 1998. Habitat Plan for the South Atlantic Region: Essential Fish Habitat Requirements for Fishery Management Plans of the South Atlantic Fishery Management Council. Available at: http://safmc.net/habitat-and-ecosystems/safmc-habitat-plan/. Accessed February 2018.

NMFS. 2006a. Letter dated March 16, 2006 from R.E. Crabtree, Ph.D. (NOAA) to M.R. Salas (FERC).

NMFS. 2006b. Sea Turtle and Smalltooth Sawfish Construction Conditions. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/sea_turtle_and_smalltooth_sawfish_construction_conditions_3-23-06.pdf. Accessed February 2017.

NMFS. 2007. Gulf Sturgeon Range Map. Available at: http://www.nmfs.noaa.gov/pr/pdfs/rangemaps/gulfsturgeon.pdf. Accessed February 2018.

NMFS. 2008. Southeast Region Vessel Strike Avoidance Measures and Reporting for Mariners; revised February 2008. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/copy_of_vessel_strike_avoidance_february_2008.pdf. Accessed February 2018.

NMFS. 2009. Smalltooth Sawfish Recovery Plan. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/smalltoothsawfish.pdf. Accessed February 2018.

NMFS. 2012. An Overview of Protected Species in the Gulf of Mexico. Available at: http://sero.nmfs.noaa.gov/protected_resources/outreach_and_education/documents/protected_species_gom.pdf.. Accessed February 2018.

NMFS. 2014. Hawksbill Turtle. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/hawksbill.html. Accessed September 2017.

NMFS. 2015a. Marine Mammal Acoustic Thresholds. Available at: https://www.westcoast.fisheries.noaa.gov/protected_species/marine_mammals/threshold_guidance.html

NMFS. 2015b. Sei Whale (Balaenoptera borealis). Available at: http://www.nmfs.noaa.gov/pr/species/mammals/whales/sei-whale.html. Accessed November 2017.

NMFS. 2015c. Fin Whale (Balaenoptera physalus). Available at: http://www.nmfs.noaa.gov/pr/species/mammals/whales/fin-whale.html. Accessed November 2017.

NMFS. 2016a. Green Turtle. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/green.html. Accessed September 2017.

NMFS. 2016b. Leatherback Turtle. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.html. Accessed September 2017.

NMFS. 2016c. Letter dated June 22, 2016 from R.E. Crabtree, Ph.D. (NOAA) to D. Swearingen (FERC).

NMFS. 2017a. Scalloped Hammerhead Shark. Accessed November 2017: Available at: https://www.fisheries.noaa.gov/species/scalloped-hammerhead-shark

NMFS. 2017b. Atlantic Blacktip Shark. Accessed November 2017: Available at: https://www.fisheries.noaa.gov/species/atlantic-blacktip-shark

NMFS. 2017c. Sea Turtles. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/. Accessed February 2018.

NMFS. 2017d. Kemps Ridley Turtle. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/kempsridley.html. Accessed September 2017.

NMFS. 2017e. Loggerhead Turtle. Available at: http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.html. Accessed September 2017.

NMFS. 2017f. Sperm Whale. Available at: http://www.nmfs.noaa.gov/pr/species/mammals/whales/sperm-whale.html. Accessed September 2017.

NMFS. 2018. Letter dated August 29, 2018 from R.E. Crabtree, Ph.D. (NOAA) to J. Thompson (Sempra).

NMFS. n.d.-a. Texas' Threatened and Endangered Species. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/Documents/texas.pdf Accessed September 2018.

NMFS. n.d.-b. Louisiana's Threatened and Endangered Species. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/Documents/louisiana.pdf. Accessed September 2018.

NMFS. n.d.-c. Threatened Coral Species. Available at: http://sero.nmfs.noaa.gov/protected_resources/coral/documents/live_rock_information_for_listed_corals.pdf. Accessed February 2018.

NMFS. n.d.-d. Giant Manta Ray. Available at: https://www.fisheries.noaa.gov/species/giant-manta-ray. Accessed September 2018.

NMFS. n.d.-e Gulf of Mexico's Threatened and Endangered Species. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/Documents/gulf_of_mexico.pdf. Accessed September 2017.

NMFS. n.d.-f. Bryde's Whale. Available at: https://www.fisheries.noaa.gov/species/brydes-whale. Accessed September 2018.

NMFS. n.d.-g. Gulf of Mexico Bryde's Whale. Available at: https://www.fisheries.noaa.gov/species/gulf-mexico-brydes-whale. Accessed September 2018.

NMFS. n.d.-h. Oceanic Whitetip Shark. Available at: https://www.fisheries.noaa.gov/species/oceanic-whitetip-shark. Accessed September 2018.

National Oceanic and Atmospheric Administration (NOAA). 2004. Final EIS for EFH for the Gulf of Mexico FMPs.

NOAA. 2009. Tropical Cyclone Report – Hurricane Ike (AL092008). Available at: http://www.nhc.noaa.gov/pdf/TCRAL092008_ Ike_3May10.pdf. Accessed January 2017.

NOAA. 2015a. "Storm Surge Inundation (SLOSH Maximum of Maximums" Web Map. Retrieved May 2015. Available at: http://noaa.maps.arcgis.com/apps/StorytellingTextLegend/index.html?appid=b1a20ab5e.

NOAA. 2015b. GIS Data for Gulf of Mexico EFH and HAPC. Available at: http://sero.nmfs.noaa.gov/maps_gis_data/habitat_conservation/efh_gom/index.html

NOAA. 2017a. National Weather Service National Hurricane Center. Storm Surge Overview. Available at: http://www.nhc.noaa.gov/surge/. Accessed January 2017.

NOAA. 2017b. Tides and Currents. Highest Storm Water Levels. Available at: https://www.tidesandcurrents.noaa.gov/quicklook_highest_storm.html. Accessed September 2017.

NOAA. 2017c. NOAA Office of Coast Survey, Chart Locator. Accessed September 2017. Available at: http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml

NOAA. 2017. Summary of Monthly Normals. Available at https://www.ncdc.noaa.gov/cdo-web/datatools/normals. Accessed July and November 2017.

NOAA. 2017. Global and Regional Sea Level Rise Scenarios for the United States. January 2017.

NOAA/ESRL. 2019. NOAA Earth System Research Laboratory - Carbon Cycle Group computes global mean surface values using measurements of weekly air samples from the Cooperative Global Air Sampling Network *[Conway et al., 1994; Dlugokencky et al., 1994; Novelli et al., 1992; Trolier et al., 1996]*. Available online at: https://www.esrl.noaa.gov/gmd/ccgg/trends/global.html.

National Park Service. 2015. Leatherback Sea Turtle. Available at: https://www.nps.gov/pais/learn/nature/leatherback.htm. Accessed February 2018.

National Weather Service (NWS). 2016. 2015 Flash Flood/River Fatalities; Lightning Fatalities; and Tornado Fatalities. Available at: http://www.nws.noaa.gov/om/hazstats.shtml. Accessed January 2017.

The Nature Conservancy. 2017. CC Road Savanna Preserve. Available at: https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/louisiana/placesweprotect/cc-road-savanna-preserve.xml. Accessed September 2017.

NatureServe . 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at: http://explorer.natureserve.org. Accessed: February 2018.

NatureServe. 2017. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at: http://explorer.natureserve.org. Accessed: February 2018.

Needham, H.F., & B.D. Keim, 2012: A Storm Surge Database for the U.S. Gulf Coast. International Journal of Climatology, 32(14), 2108-2123. DOI: 10.1002/joc.2425.

Nelson, S. A. 2004. Subsidence: Dissolution and human related causes. Earth and Environmental Sciences Course 204, Tulane University. Available at: http://www.tulane.edu/~sanelson/geo1204/subsidence.htm.

Neyland, Ray. 2009. Wildflowers of the Coastal Plain: A Field Guide. Louisiana State University Press, Baton Rouge.

North Carolina Department of Environmental Quality. 2018. Spanish Mackerel (Scomberomorus maculatus). Available at: http://portal.ncdenr.org/web/mf/mackerel-spanish. Accessed February 2018.

O'Rourke, T. D. and M. C. Palmer. 1996. Earthquake Performance of Gas Transmission Pipelines. Earthquake Spectra. August 1996, Vol. 12, No. 3.

Oberholser, H. C. 1974. The bird life of Texas. University of Texas Press, Austin.

Odum, W.E., C.C. McIvor, & T.J. Smith, III. 1982. The Ecology of the mangroves of south Florida: a community profile. U.S. Fish and Wildlife Service, Office of Biological Services, Washington, D.C. FWS/OBS-81/24. 144 p.

Ontario Ministry of Natural Resources. 2000. Forest Compliance Strategy: Forest Compliance Handbook – Revised March 2000. Available at: http://www.ontla.on.ca/library/repository/mon/5000/10299716.pdf

Owen, Donald E. 2008. Geology of the Chenier Plain of Cameron Parish, southwestern Louisiana. The Geological Society of America. Field Guide 14.

Patterson, James W. 2012. Evaluation of new obstruction lighting techniques to reduce avian fatalities. U.S. Department of Transportation.

Pattillo, M.E., T.E. Czapla, D.M. Nelson, & M.E. Monaco. 1997. Distribution and abundance of fishes and invertebrates in Gulf of Mexico estuaries. Vol. II: Species life history summaries. ELMR Rep. No. 11. NOAA/NOS Strategic Environmental Assessment Div., Silver Spring, MD. 377 p.

Petersen, M.D., M.P. Moschetti, P.M. Powers, C.S. Mueller, K.M. Haller, A.D. Frankel, Yuehua Zeng, Sanaz Rezaeian, S.C. Harmsen, O.S. Boyd, Ned Field, Rui Chen, K.S. Rukstales, Nico Luco, R.L. Wheeler, R.A. Williams, & A.H. Olsen. 2014a. Documentation for the 2014 update of the United States national seismic hazard maps: U.S. Geological Survey Open-File Report 2014–1091, 243 p., https://dx.doi.org/10.3133/ofr20141091.

Petersen, M.D., M.P. Moschetti, P.M. Powers, C.S. Mueller, K.M. Haller, A.D. Frankel, Yuehua Zeng, Sanaz Rezaeian, S.C. Harmsen, O.S. Boyd, E.H. Field, Rui Chen, Nico Luco, R.L. Wheeler, R.A. Williams, K.S. Rukstales, & A.H. Olsen. 2014b. Seismic-hazard maps for the Conterminous United States. 2014a: U.S. Geological Survey Scientific Investigations Map 3325, 6 sheets, scale 1: 7,000,000. Available at: http://pubs.usgs.gov/sim/3325/. Accessed January 2017.

Petersen, M.D., C.S. Mueller, M.P. Moschetti, S.M. Hoover, A.L. Llenos, W.L. Ellsworth, A.J. Michael, J.L. Rubinstein, A.F. McGarr, & K.S. Rukstales. 2016. 2016 One-year seismic hazard forecast for the Central and Eastern United States from induced and natural earthquakes: U.S. Geological Survey Open-File Report 2016-1035, 52 p. Available at: https://pubs.er.usgs.gov/publication/ofr20161035. Accessed January 2017.

PGP Valuation, Inc. 2008. Updated Market Analysis – The Impact of Natural Gas Pipelines on Property Values. February 21, 2008. Available at: http://www.palomargas.com/docs/resources/Pipeline_Impact_on_Property_Values.pdf

PI Engineering. 2005. Analysis of Turbidity in the Vicinity of the Port Arthur LGN Project. Prepared by Michael Davies, Ph.D., P. Eng. 15 February 2005.

PipeUp. 2017. The Williams Blog; Gulf Trace Project Placed into Service. Available at: https://blog.williams.com/energy-and-infrastructure/gulf-trace-project-placed-into-service/. Accessed September 2017.

Pleasure Island Commission. 2017. Outdoor Activities on Pleasure Island. Available at: http://www.pleasureislandtx.com/activities.htm. Accessed September 2017.

Poole, Jackie M., William R. Carr, Dana M. Price, & Jason R Singhurst. 2007. Rare Plants of Texas. College Station: Texas A&M University.

Popper A. N., M.E. Smith, P.A. Cott, B.W. Hanna, A.O. MacGillivray, M.E. Austin, and D.A. Mann. 2005. Effects of exposure to seismic airgun use on hearing of three fish species. J. Acoust. Soc. Am. 10.1121/1.1904386 117, 3958–3971.

Radbruch-Hall, D.H., R.B. Colton, W.E. Davies, Ivo Lucchitta, B.A. Skipp, & D.J. Varnes. 1982. Landslide Overview Map of the Conterminous United States. Geological Survey Professional Paper 1183. Available at: http://pubs.usgs.gov/pp/p1183/pp1183.html. Accessed January 2017.

Renken, R. 1998. Groundwater Atlas of the United States, Arkansas, Louisiana, Mississippi. U.S. Geological Survey HA 730-F. https://pubs.usgs.gov/ha/730f/report.pdf.

Rice, Harvey. 2012. Rare manatee Sighting in Galveston. Houston Chronical Online edition. Accessed September 15, 2015 at: http://www.chron.com/news/houston-texas/article/Rare-manatee-sighting-in-Galveston-3924028.php

Robbins, C.S. 1988. Forest fragmentation and its effects on birds. IN Johnson, J.E. (ed.) 1988. Managing North Central forests for non-timber values. Publication 88-4, Society of American Foresters. Bethesda, Maryland.

Rodewald, A.D. & R.H. Yahner. 2001. Influence of Landscape Composition on Avian Community Structure and Associated Mechanisms. Ecology. Volume 82, Issue 12.

Rosenberg, K. V., & M. G. Raphael. 1986. Effects of forest fragmentation on vertebrates in Douglas-fir forests. Pp. 263-272 in J. Verner, M. L. Morrison, and C. J. Ralph (Eds.), Wildlife 2000: Modeling habitat relationships of terrestrial vertebrates. Madison: University of Wisconsin Press.

Rosenberg, K.V., R.W. Rohrbaugh, Jr., S.E. Barker, J.D. Lowe, R.S. Hames, & A.A. Dhondt. 1999. A land managers guide to improving habitat for scarlet tanagers and other forest-interior birds. The Cornell Lab of Ornithology.

Ruple, D.L. 1993. Shoreline Erosion Losses. Proceedings of the 59th Meeting of the Coastal Engineering Research Board, 16-18 November 1993. Point Clear, Alabama. Available at: http://bigfoot.wes.armv.mil/5914.html.

Ryder. 1996. Groundwater Atlas of the United States, Oklahoma and Texas. U.S. Geological Survey HA730-E. 1996. https://pubs.usgs.gov/ha/730e/report.pdf.

Sabine Neches Chiefs Association. 2018. History and Home. Available at https://www.snchiefs.com/. Accessed September 2018.

Sabine Neches Navigation District (SNND). 2017a. ABOUT: Sabine Neches Navigation District, Sabine Neches Waterway. Port Arthur, Texas. Accessed November 2017: https://www.navigationdistrict.org/about/snnd/

SNND. 2017b. The Waterway. Available at: http://www.navigationdistrict.org/about/the-waterway/. Accessed on February 2, 2017.

SNND. 2017c. FAQs: Channel Improvement Project. Available at: https://www.navigationdistrict.org/faqs-channel-improvement-project/. Accessed September 2017.

Savy, J.B., W. Foxall, & D.L. Bernreuter. 1998. “Probabilistic seismic hazard characterization and design parameters for the Pantex plant, Hazards Mitigation Center, Lawrence Livermore National Laboratory”. Prepared for Mason and Hanger Corporation. UCRL-CR-132282. P. 93. Available at: https://digital.library.unt.edu/ark:/67531/metadc673202/m2/1/high_res_d/2889.pdf.

Schaefer, R. R. 1996. Red-cockaded woodpecker reproduction and provisioning of nestlings in relation to habitat. M.Sc. thesis, Stephen F. Austin State University, Nacogdoches, TX.

Seney, Erin & André M. Landry, Jr. (2011). Movement patterns of immature and adult female Kemp's ridley sea turtles in the northwestern Gulf of Mexico. Marine Ecology Progress Series. 440. . 10.3354/meps09380.

Shackelford, C. E., E. R. Rozenburg, W. C. Hunter, & M. W. Lockwood. 2005. Migration and the Migratory Birds of Texas: Who They Are and Where They Are Going. Texas Parks and Wildlife PWD BK W7000-511 (11/05). Booklet, 34p.

Smithsonian Marine Station at Fort Pierce. 2018. White Shrimp (Penaeus setiferus) Fact Sheet. Available at: http://www.sms.si.edu/irlspec/Penaeu_setife.htm. Accessed January 2018.

Soil Survey Division Staff. 1993. Soil Survey Manual. USDA Soil Conservation Service, US Department of Agriculture Handbook 18.

Soil Survey Division Staff. 1994. National Soil Survey Handbook. USDA Soil Conservation Service, Washington, D.C.

South Carolina Department of Natural Resources. 2015. White Shrimp (Litopenaeus setiferus) Fact Sheet. Available at: http://www.dnr.sc.gov/marine/species/whiteshrimp.html. Accessed January 2018.

Stadler, J. H., & D. P. Woodbury. 2009. Assessing the effects to fishes from pile driving: Application of new hydroacoustic criteria. Inter-noise 2009 Innovations in Practical Noise Control.

Stevenson, D. A. and R. P. McCulloh. 2001. Earthquakes in Louisiana. Louisiana Geological Survey Public Information Series No. 7, Louisiana Geological Survey, Baton Rouge, Louisiana. Available at: http://www.lgs.lsu.edu/deploy/uploads/7earthquakes.pdf.

Sundström, L.F. 2015. The IUCN Red List of Threatened Species 2015: Negaprion brevirostris. Available at: http://www.iucnredlist.org/details/39380/0. Accessed February 2018.

T. Baker Smith, LLC. 2015. Wetland Delineation Report for Sempra LNG Property. Located in Jefferson County, Texas Abstracts 12, 71, 123, 185, 251, 331, 438, 488, 770, 780, & 927. TBS Project Number 2014.0778. February, 2015.

Teal, J. & M. Teal. 1969. Life and Death of the Salt Marsh. University of California, 1969.

Texas A&M. 2017. The Texas Breeding Bird Atlas – Species Accounts. Available at: https://txtbba.tamu.edu/species-accounts/. Accessed February 2017.

Texas Commission on Environmental Quality (TCEQ). 2003. Description of BMPs - Erosion Control BMPs.

TCEQ. 2013. Priority Groundwater Management Areas. Available at: https://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/pgma_areas.pdf. Accessed February 2017.

TCEQ. 2015. 2014 Texas Surface Water Quality Standards, Appendix B – Sole-source Surface Drinking Water Supplies. Available at: https://www.tceq.texas.gov/waterquality/standards/2014standards.html. Accessed February, 2017.

TCEQ. 2017a. What is a Groundwater Conservation District (GCD)?. Available at: https://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/gcd_text.pdf. Accessed February 2017.

TCEQ. 2017b. Priority Groundwater Management Areas. Available at: https://www.tceq.texas.gov/groundwater/pgma.html. Accessed February 2017.

TCEQ. 2017c. Texas Groundwater Conservation Districts (February 2017. Map available at: https://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/gcdmap.pdf. Accessed February 2017.

TCEQ. 2017d. Wind Roses. Available at: https://www.tceq.texas.gov/airquality/monops/windroses.html Accessed January 2017

TCEQ. 2017. Indexes to Air Permits by Rule. Available at: https://www.tceq.texas.gov/permitting/air/permitbyrule/air_pbr_index.html

Texas Department of Agriculture. 2016. Noxious and Invasive Plants. Available at: http://www.texasagriculture.gov/RegulatoryPrograms/PlantQuality/NoxiousandInvasivePlants.aspx

Texas Forest Service, Texas A&M University System. 2010. Eastern Texas Forestlands.

Texas Parks and Wildlife Department (TPWD). 2009. 15 Texas Freshwater Mussels Placed on State Threatened List. Available at: http://tpwd.texas.gov/newsmedia/releases/?req=20091105c. Accessed February 2017.

TPWD. 2012. Gulf Coast Prairies and Marshes, Ecoregion Handbook. Available at: https://tpwd.texas.gov/landwater/land/tcap/documents/gcpm_tcap_2012.pdf

TPWD. 2014 Texas Integrated Report Index of Water Quality Impairments (305[b]/303[d])

TPWD. 2015. Email dated March 11, 2015 from Brent Ortego to Trey Hadley and Jim Sutherlin regarding Rookery Map.

TPWD. 2016. Letter dated May 9, 2016 from R. Lange (TPWD) to C. Sedberry (AECOM).

TPWD. 2017a. Letter dated June 13, 2017 from Michael Rezsutek (TPWD) to Jim Thompson (PALNG).

TPWD. 2017b. Wetland Conservation and Management for the Texas Central Coast. Erosion Control for Coastal Marsh. Available at: https://tpwd.texas.gov/huntwild/wild/wetlands/central-coast/erosion.phtml

TPWD. 2017c. J.D. Murphree WMA. Available at: https://tpwd.texas.gov/huntwild/hunt/wma/find_a_wma/list/?id=40. Accessed September 2017.

TPWD. 2017d. Wildlife Fact Sheets. Available at: https://tpwd.texas.gov/huntwild/wild/species/. Accessed February 2017.

TPWD. 2017e. Letter dated May 8, 2017 from R. Lange (TPWD) to B. Newman (CK Associates).

TPWD. 2017f. E-mail correspondence dated November 13, 2017 from R. Lange (TPWD) to J. Thompson (Sempra).

TPWD. 2017g. J.D. Murphree WMA: Fishing. Available at: https://tpwd.texas.gov/huntwild/hunt/wma/find_a_wma/list/?id=40&activity=fishing. Accessed September 2017.

TPWD. 2017h. J.D. Murphree WMA: Maps and Directions. Available at: https://tpwd.texas.gov/huntwild/hunt/wma/find_a_wma/list/?id=40&section=directions. Accessed September 2017.

TPWD. 2017i. Letter dated August 3, 2017 from R. Lange (TPWD) to J. Thompson (Sempra).

TPWD. 2017j. Ecologically Significant Stream Segments. Available at: http://tpwd.texas.gov/landwater/water/conservation/water_resources/water_quantity/sigsegs/. Accessed October 2017.

TPWD. 2017k. American eel. Available at: https://tpwd.texas.gov/fishing/sea-center-texas/flora-fauna-guide/salt-marshes/animal-life-on-the-salt-marsh-1/american-eel. Accessed February 2017

TPWD. 2018. Lane Snapper (Lutjanus synagris). <https://tpwd.texas.gov/huntwild/wild/species/lanesnapper/> accessed January 2018

TPWD. n.d.-a. Piping Plover. Available at: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_w7000_0013_piping_plover.pdf. Accessed September 2017.

TPWD. n.d.-b. Wildlife Fact Sheets - Piping Plover. Available at: https://tpwd.texas.gov/huntwild/wild/species/piplover/. Accessed February 2018.

TPWD. n.d.-c. Wildlife Fact Sheets - Interior Least Tern. Available at: https://tpwd.texas.gov/huntwild/wild/species/leasttern/. Accessed May 2018.

Texas State Historical Association. 2017. Sabine Lake. Available at: https://tshaonline.org/handbook/online/articles/ros01. Accessed September 2017.

Texas State Soil and Water Conservation Board (TSSWCB), 1985. Guidelines for Farmland of Statewide Importance Under the Farmland Protection Policy Act, Adopted by the TSSWCB, March 21, 1985. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/main/tx/soils/. Accessed November 2018.

Texas Water Development Board (TWDB). 1983. Climatic Atlas of Texas. Available at: http://www.twdb.texas.gov/publications/reports/limited_printing/doc/LP192.pdf. Climate data accessed January 2017

TWDB. 2011. Report 380: Aquifers of Texas by Peter G. George, Robert E. Mace, and Rima Retrossian. Austin, Texas, July 2011. http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R380_AquifersofTexas.pdf.

TWDB. 2017. Groundwater Data Viewer. Available: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer. Accessed: January 2017.

Texas General Land Office (TGLO). 2017. Coastal Zone Management Program. Available at: http://www.glo.texas.gov/coast/grant-projects/cmp/index.html. Accessed November 2017.

Tolan, J. M. 2007. El Nino-Southern Oscillation Impacts Translated to the Watershed Scale: Estuarine Salinity Patterns along the Texas Gulf Coast, 1982 to 2004. Estuarine, Coastal and Shelf Science, 72: 247-260.

TransCanada. 2017. Cameron Access Project. Available at: https://www.transcanada.com/en/operations/natural-gas/cameron-access-project/resources/. Accessed September 2017.

U.S. Army Corps of Engineers (USACE) Galveston District Southwestern Division. 2011. Final Feasibility Report for Sabine-Neches Waterway Channel Improvement Project Southeast Texas and Southwest Louisiana, Volume 1. Available at: http://www.navigationdistrict.org/wp-content/uploads/2014/06/SNWW-Vol-I-FFR-March-2011.pdf

USACE. 2012. Sabine-Neches Waterway, TX. Fact Sheet. Available at: http://www.swd.usace.army.mil/Portals/42/docs/civilworks/Fact%20Sheets/Galveston/FY13%20SNWW%20TX.pdf. Accessed August 5, 2014.

USACE. 2016. Southwest Costal Louisiana – Integrated Final Feasibility Report and Environmental Impact Statement. US Army Corps of Engineers. http://www.mvn.usace.army.mil/About?Projects/Southwest-Coastal/.

USACE. 2018. Media Release no. 13-063. Available at http://www.swg.usace.army.mil/Media/News-Releases/Article/480540/usace-galveston-district-awards-contract-for-geotechnical-services-at-dredging/. Accessed [February 7, 2018]

U.S. Census Bureau. 2000. Census 2000 Summary File 1 (SF 1) 100-Percent Data. Population, Housing Units, Area, and Density: 2000 – County – County Subdivision and Place (GCT-PH1). Retrieved from: http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

U.S. Census Bureau. 2010. Census 2010 Summary File 1. Population, Housing Units, Area, and Density: 2010 – County – County Subdivision and Place (GCT-PH1). Retrieved from: http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t

U.S. Census Bureau. 2016. 2011-2015 American Community Survey 5-Year Estimates. Demographic and Housing Estimates. Retrieved from: http://factfinder2.census.gov

U.S. Census Bureau, Population Division. 2015. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015. Available at http://www.census.gov/.

U.S. Climate Data. 2016. Annual Precipitation. Available at: https://www.usclimatedata.com/ Accessed August 2016.

U.S. Department of Agriculture (USDA). 1999. National Agricultural Statistics Service. Crop Production, 1998 Summary. Cr Pr 2-1 (99). Jan.

USDA Forest Service. 1997. Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region. Region 8 Old-Growth Team. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5212346.pdf. Accessed November 2018.

USDA National Agricultural Statistics Service. 2016. Louisiana Crop Production Report – October 12, 2016. Available at: https://www.nass.usda.gov/Statistics_by_State/Louisiana/Publications/Crop_Releases/Crop_Production_Monthly/2016/lacrpoct16.pdf

USDA Natural Resources Conservation Service (NRCS). 2010. Federal Noxious Weed List. Available at: http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/weedlist.pdf

USDA Soil Conservation Service. n.d. Soil Survey Geographic (SSURGO) Database. Available at https://sdmdataaccess.sc.egov.usda.gov. Accessed [January 24, 2016]

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. 2016. National Center of Health Statistics, National Vital Statistics System, Table 10: Number of deaths from 113 selected causes. 2014. Accessed January 2017.

U.S. Department of Labor, Bureau of Labor and Statistics. 2017. CPI Inflation Calculator. Available at: http://www.bls.gov/data/inflation_calculator.htm. Accessed February 2017.

U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). 2016a. Significant Pipeline Incidents by Cause; National Gas Transmission: Significant Incident Details: 1997-2016. Accessed February 2017.

DOT PHMSA. 2016b. Consequences to the Public and the Pipeline Industry; National Gas Transmission: Consequences Summary Statistics: 2010-2015. Accessed February 2017.

DOT PHMSA. 2016c. Significant Pipeline Incidents by Cause; National Gas Distribution: Significant Incidents Summary Statistics: 1997-2016, 20-year average. Accessed February 2017.

DOT PHMSA. 2016d. Significant Pipeline Incidents by Cause; National Gas Transmission: Significant Incidents Summary Statistics: 1997-2016, 20-year average. Accessed February 2017.

U.S. Environmental Protection Agency (EPA). 1999. Consideration Of Cumulative Impacts In EPA Review of NEPA Documents. EPA 315-R-99-002. Issued May 1999.

EPA. 2011. Environmental Justice Frequently Asked Questions. Available at: https://compliancegov.zendesk.com/hc/en-us/sections/202370188.

EPA. 2013. Water: After the Storm – Weather. Available at: http://water.epa.gov/action/weatherchannel/stormwater.cfm. Accessed September 29, 2014.

EPA. 2014. Waterbody Quality Assessment Report. 2010 Waterbody Report for Hillebrandt Bayou. https://ofmpub.epa.gov/waters10/attains_waterbody.control?p_list_id=TX-0704_02&p_cycle=2014&p_report_type=T. September 2016

EPA. 2015. My Waters Mapper. Available at: http://watersgeo.epa.gov/mwm/. Accessed May 23, 2015.

EPA. 2016a. NAAQS Table. Available at: https://www.epa.gov/criteria-air-pollutants/naaqs-table

EPA. 2016b. Rulemaking Notices for GHG Reporting. Greenhouse Gas Reporting Program Available at: https://www.epa.gov/ghgreporting/rulemaking-notices-ghg-reporting

EPA. 2017. 8-hour Ozone (2008) Designated Area/State Information. GreenBook. Available at: https://www3.epa.gov/airquality/greenbook/hbtc.html

EPA Facility Registry Service. 2017. Available at www.epa/gov/enviro/facility-registry-service-frs. Accessed [September 5, 2016]

U.S. Fish and Wildlife Service (FWS). 2001a. Endangered and Threatened Wildlife and Plants; Final Determinations of Critical Habitat for Wintering Piping Plovers; Final Rule. 66 Federal Register 132 (July 10, 2001). Available at: https://www.gpo.gov/fdsys/pkg/FR-2001-07-10/pdf/01-16905.pdf#page=101. Accessed February 2018.

FWS. 2001b. Piping Plover Fact Sheet. Available at: https://www.fws.gov/midwest/endangered/pipingplover/pipingpl.html. Accessed September 2017.

FWS. 2003. Recovery Plan for the Red-cockaded Woodpecker (Picoides borealis) – Second Revision. Available at: https://www.fws.gov/rcwrecovery/files/RecoveryPlan/finalrecoveryplan.pdf. Accessed September 2017.

FWS. 2005. Red Knot Fact Sheet. Available at: https://www.fws.gov/northeast/redknot/facts.pdf. Accessed September 2017.

FWS. 2007. Bald Eagle Management Guidelines. Available at: https://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf

FWS. 2008a. Birds of Conservation Concern. Available at: https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php.

FWS. 2008b. West Indian Manatee. Available at: https://www.fws.gov/endangered/esa-library/pdf/manatee.pdf. Accessed September 2017.

FWS. 2014. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot; Final Rule. 79 Federal Register 238 (December 11, 2014).

FWS. 2015. Red Knot. Available at: https://www.fws.gov/northeast/redknot/. Accessed September 2017.

FWS. 2016a. Threatened and Endangered Species Habitat Descriptions. Available at: https://www.fws.gov/lafayette/pdf/T&E_Habitat_Descriptions.pdf. Accessed February 2018.

FWS. 2016b. Red-cockaded Woodpecker. Available at: https://www.fws.gov/rcwrecovery/rcw.html. Accessed September 2017.

FWS. 2016c. Sabine National Wildlife Refuge – About the Refuge. Available at: https://www.fws.gov/refuge/Sabine/about.html

FWS. 2017. Memo summarizing September 14, 2017 teleconference between Louisiana FWS and FERC (Accession #20171002-3000).

FWS. 2017a. Letter dated July 7, 2017 from J. Ranson (FWS) to B. Newman (CK Associates).

FWS. 2017b. American Chaffseed. Available at: https://www.fws.gov/southeast/wildlife/plants/american-chaffseed/#recovery-plan-section. Accessed February 2018.

FWS. 2017c. West Indian Manatee. Available at: https://www.fws.gov/southeast/wildlife/mammal/manatee/. Accessed September 2017.

FWS. 2017d. Sabine National Wildlife Refuge. About the Refuge. https://www.fws.gov/refuge/Sabine/about.html. Accessed September 2017.

FWS. 2017d. Endangered, Threatened, and Candidate Species of Louisiana. Available at: https://www.fws.gov/southeast/pdf/fact-sheet/louisiana-ecological-services-field-office-t-and-e-species.pdf. Accessed November 2017.

FWS. 2018a. Letter dated June 8, 2018 from C. Ardizzone (FWS) to J. Thompson (Sempra).

FWS. 2018b. Letter dated December 12, 2018 from C. Ardizzone (FWS) to J. Thompson (Sempra).

FWS. 2018c. Least Tern Fact Sheet. Available at: https://www.fws.gov/midwest/endangered/birds/leasttern/IntLeastTernFactSheet.html. Accessed May 2018.

FWS. 2018d. E-mail correspondence dated April 17, 2018 from M. Belton (FWS) to D. Hanobic (FERC).

FWS. 2018e. Service Proposes to List the Eastern Black Rail as Threatened Under the Endangered Species Act. October 8, 2018. Available at: https://www.fws.gov/southeast/news/2018/10/service-proposes-to-list-the-eastern-black-rail-as-threatened-under-the-endangered-species-act/. Accessed December 2018.

FWS. 2018f. Hawksbill Sea Turtle Fact Sheet. Available at: https://www.fws.gov/northflorida/SeaTurtles/Turtle%20Factsheets/hawksbill-sea-turtle.htm. Accessed February 2018.

FWS. 2018g. E-mail dated August 9, 2018 from J. Ranson (FWS) to J. Thompson (Sempra).

FWS. n.d.-a. Environmental Conservation Online System – Information for Planning and Consultation, Endangered Species in Jefferson County, Texas. Available at: https://ecos.fws.gov/ipac/location/OCMH3D7V6RBVFIPZ4S2NV4HBCE/resources. Accessed February 2018.

FWS. n.d.-b. Environmental Conservation Online System – Information for Planning and Consultation, Endangered Species in Orange County, Texas. Available at: https://ecos.fws.gov/ipac/location/D6Z5P6KFM5CUZFPTBPXCKTFIBE/resources. Accessed February 2018.

U.S. Geological Survey (USGS). 2006. Quaternary fault and fold database for the United States. Available at: http://earthquake.usgs.gov/hazards/qfaults/. Accessed January 2017.

USGS. 2008. U.S. Geological Survey Earthquake Hazards Program. Available at: http://earthquake.usgs.gov/hazards/. Accessed January 2017.

USGS. 2009. Regional Assessment of Tsunami Potential in the Gulf of Mexico. Available at: http://nws.weather.gov/nthmp/documents/GoM-Final01regionalAssessment.pdf. Accessed August 2018

USGS. 2010. Status of the Chicot Aquifer System in Southwestern Louisiana – with emphasis on the Lake Peigneur area. August 2010. http://senate.legis.state.la.us/Mills/Topics/2011/JECH/aquafier.pdf

USGS. 2013. 2009 Minerals Yearbook: Texas. Available at: https://minerals.usgs.gov/minerals/pubs/state/2009/myb2-2009-tx.pdf. Accessed January 2017.

USGS. 2014. National Land Cover Database, 2011 Land Cover (2011 Edition, amended 2014); National Geospatial Data Assess Land Use and Land Cover. Available at: https://www.mrlc.gov/nlcd11_data.php. Accessed November 2017.

USGS. 2015. 2010-2011 Minerals Yearbook: Louisiana. Available at: https://minerals.usgs.gov/minerals/pubs/state/2010_11/myb2-2010_11-la.pdf. Accessed January 2017.

USGS. 2016. The USGS Water Science School, What is a Watershed. Available at: http://water.usgs.gov/edu/watershed.html. Accessed September 2017.

USGS. 2017. Water Resources of the United States, Hydrologic Unit Maps. Available at: http://water.usgs.gov/GIS/huc.html. Accessed September 2017.

USGS. 2018. Plants of Louisiana – Plantago patagonica. Available at: https://warcapps.usgs.gov/PlantID/Species/Details/4106. Accessed February 2018.

U.S. Global Change Research Program. 2017. Climate Science Special Report: Fourth National Climate Assessment, Volume I.

U.S. Global Change Research Program. 2018. Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 186 pp.

U.S. Gulf of Mexico Fisheries Information (GulfInfo). 2018. Shrimp, Brown (Farfantepenaeus aztecus). Available at: http://gulffishinfo.org/Species?SpeciesID=99. Accessed January 2018.

University of Washington. 2000. Soil Liquefaction. Available at: http://www.ce.washington.edu/~liquefaction/html/what/what1.html.

Vaughan, D. M., and M. D. Shepherd. 2005. Species Profile: Euphyes bayensis. In Shepherd, M. D., D. M. Vaughan, and S. H. Black (Eds). Red List of Pollinator Insects of North America. CD-ROM Version 1 (May 2005). Portland, OR: The Xerces Society for Invertebrate Conservation.

Watts, B. D. 2016. Status and distribution of the eastern black rail along the Atlantic and Gulf Coasts of North America. The Center for Conservation Biology Technical Report Series, CCBTR-16-09. College of William and Mary/Virginia Commonwealth University, Williamsburg, VA. 148 pp.

Wheeler, R.I. 2005. Known or Suggested Quaternary Tectonic Faulting, Central and Eastern United States – New and Updated Assessments for 2005, U.S. Geological Survey Open-File Report 2005-1336, 37 pages.

Wheeler, R.L., and Crone, A.J. 2001. "Known and suggested Quaternary faulting in the midcontinent United States". Engineering Geology, v. 62, p. 51-78.

Wilber, D.H. and D.G. Clarke. 2001. Biological effects of suspended sediments: a review of suspended sediment impacts on fish and shellfish with relation to dredging activities in estuaries. North American Journal of Fisheries Management. l21:855-875.

Williams. 2017. Gulf Trace Expansion Project. Available at: http://co.williams.com/expansionprojects/gulf-trace-expansion-project-2/. Accessed September 2017.

Yellow Pages. 2017. Online search by county/city conducted at http://www.yp.com

Young. 2015. Email correspondence dated July 24, 2015 from H. Young (NOAA), to J. Thompson (Sempra LNG).

Zydeco Cajun Prairie Scenic Byway Commission. 2017. Our Heritage. Available at: http://www.zydecocajunbyway.com/index1.html. Accessed September 2017.

APPENDIX S

LIST OF PREPARERS

Appendix S

List of Preparers

Federal Energy Regulatory Commission

Hanobic, David – Environmental Project Manager
B.S., Biology, 2003, Lock Haven University of Pennsylvania

Yuan, Julia – Deputy Project Manager; Socioeconomics; Cumulative Impacts
M.P.S., Natural Resources Management, 2003, State University of New York, College of Environmental Science and Forestry
B.S., Environmental Biology/Forestry, 1999, State University of New York, College of Environmental Science and Forestry

Balsom, Arianne – Aquatic Resources; EFH
M.S. Ecology and Evolutionary Biology, University of Tennessee, 2003
B.S. Ecology and Evolutionary Biology, University of Tennessee, 2000
B.A. Marine Biology, University of Tennessee, 2000

Boros, Laurie – Cultural Resources
B.A., Anthropology/Archaeology, 1980, Queens College, City University of New York

Dague, Brady, PE – Reliability and Safety
B.S. Civil Engineering, 2010, University of Maryland

Fox-Fernandez, Nancy – Vegetation; Wildlife; Threated and Endangered Species
M.S., Natural Resources: Wildlife, 2006, Humboldt State University
B.A., Psychology, 1993, Skidmore College

Kragie, S. Xiah, P.E. –Air Quality and Noise
M.A., Geochemistry, 2013, Columbia University
M.P.H., Global Environmental Health, 2008, Emory University
B.S., Civil & Environmental Engineering, 2006, University of Maryland

Peng, Andrew – Reliability and Safety
B.C.E., Civil Engineering, 2014, University of Delaware

Silvera, Liliana – LNG Reliability and Safety
B.S., Chemical Engineering, 2003, University of Maryland

Abdi, Solomon – LNG Reliability and Safety
M.S., Mechanical Engineering, 2004, Southern University and A&M College

Schreiber, Seth, P.E. – LNG Reliability and Safety
M.S., Chemical Engineering, 2005, Washington University in St. Louis

FERC Consultants

Roger Stebbing – LNG Reliability and Safety
B.S., Chemical Engineering, University of Salford, England, 1968

Robert Bachman – LNG Reliability and Safety
M.S., Structural Engineering, University of California at Berkeley, 1968

B.S., Civil Engineering, University of California at Berkeley, 1967

Kul Bhushan – LNG Reliability and Safety
Ph.D., Geotechnical Engineering, Duke University, 1970
M.S., Highway Engineering, Panjab University, India, 1963
B.S., Civil Engineering, Panjab University, India, 1962

U.S. Army Corps of Engineers

Dodson, Felicity (Galveston District)

U.S. Coast Guard

LT Mitchell, Ryan

U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration

Battams, Ahuva
Nguyen, Thach

U.S. Department of Energy

Lavoie, Brian

U.S. Environmental Protection Agency, Region 6

Merjent, Inc.

Jessen, Kim – Project Manager; Introduction; Alternatives; Cumulative Impacts
B.A., Anthropology/Archaeology, Moorhead State University, 1994

Book, Graham – Deputy Project Manager; Proposed Action
B.A., English, St. Olaf College, 2008

DeName, Kristina – Vegetation; Wildlife; Aquatic Resources; EFH
B.S., Environmental and Forest Biology, SUNY-College of Environmental Science and Forestry, 2010

Durand, Angela – Threatened and Endangered Species
B.S., Natural Resources and Environmental Studies, University of Minnesota, 1999

Galer, Bruce – Geology; Groundwater
B.A., Geology, University of Minnesota, Morris, 1991

Gawtry, Bec – Vegetation; Wildlife
B.A., Biology, St. Olaf College, Northfield, Minnesota, 2005

Krause, Kari – Cultural Resources
M.S., Archaeological Resource Management, Ball State University, 1995
B.A., Anthropology/History, Ripon College, 1993

Appendix S

List of Preparers

Warner, Casey – Socioeconomics
Masters of Urban and Regional Planning, Virginia Tech, 2005
B.A., Urban and Community Studies, University of Connecticut, 2003

Entinger, Monica – Surface Waters; Wetlands
M.S., Science Technology and Environmental Policy, University of Minnesota, 2011
B.S. Ecology, Minnesota State University, Mankato, 2007

Hansen, Shannon – Land Use, Recreation, and Visual Resources
B.S., Natural Resources & Environmental Studies, University of Minnesota, 1999

Hambleton, Suzanne – Air Quality and Noise
B.S., Chemical Engineering, University of Minnesota – Minneapolis, 2002
B.S., Chemistry, University of Minnesota – Minneapolis, 2002

Preszler, Christina – Air Quality and Noise
B.S., Chemical Engineering, University of Iowa, 2003

Schwitzer, Luke – Soils
M.S. coursework in Natural Resources Science and Management, University of Minnesota, 2009-2011
B.S., Environmental Design, University of Minnesota, 2008

Beard, Scott – Pipeline Reliability and Safety
B.S., Chemical Engineering, University of Minnesota – Duluth, 2010

Solberg, Kyle – GIS Support
B.S., Geography (Resource Management), University of Wisconsin - Eau Claire, 2004

Merjent, Inc. is a third party contractor assisting the Commission staff in reviewing the environmental aspects of the project application and preparing the environmental documents required by NEPA. Third party contractors are selected by Commission staff and funded by project applicants. Per the procedures in 40 CFR 1506.5(c), third party contractors execute a disclosure statement specifying that they have no financial or other conflicting interest in the outcome of the project. Third party contractors are required to self-report any changes in financial situation and to refresh their disclosure statements annually. The Commission staff solely directs the scope, content, quality, and schedule of the contractor's work. The Commission staff independently evaluates the results of the third-party contractor's work and the Commission, through its staff, bears ultimate responsibility for full compliance with the requirements of NEPA.

APPENDIX T

RESPONSE TO PUBLIC COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

INDIVIDUAL COMMENTS

From: Kenneth Teague
Sent: Tuesday, October 9, 2018 12:33 PM
To: swg_public_notice@usace.army.mil; Kaspar.Paul@epa.gov; martinez.maria@epa.gov; Rusty.Swafford@noaa.gov; david_hoth@fws.gov; 401certs@tceq.texas.gov; Rebecca Hensley; brandtshnfbt@juno.com; leslie.savage@rrc.texas.gov
Subject: Comments on PN SWG-2008-00497

Dear Sir/Ms: I have reviewed the very limited information provided with this PN, and I have the following comments:

Comments

The 404(b)(1) Guidelines require consideration of alternatives, and demonstration of effort to avoid and minimize impacts to wetlands and other waters of the U.S. Keep in mind that 1921.71 acres of wetlands are proposed to be destroyed by this project. And yet, the sum total of information provided in this PN, regarding alternatives, avoidance and minimization, is the following:

- ***AVOIDANCE AND MINIMIZATION:*** *The applicant stated that they considered both onsite and offsite alternatives for the proposed project, in addition to alternative facility configurations. The applicant indicated that they selected the proposed site because the site contains previously disturbed wetlands, a low percentage of tidal wetlands (compared to other sites considered), existing dock structures that can be modified to meet project needs, as well as patches of upland habitat.*

IND1-1

- The PN provides no information regarding the suitability of dredged material for disposal in waters of the U.S., or in upland confined disposal facilities. Sabine Lake and the surrounding area is highly industrialized, and has been for a century or more. There are many areas in this estuarine/wetland system in which sediments are known to be contaminated. Old dredged material, similar to what is proposed to be dredged and used to create mitigation wetlands (and nearby), has in the past sometimes appeared to be contaminated, based on testing using methods of unknown quality. Therefore, clearly, there is sufficient "reason to believe" that the material proposed to be dredged by this project may be contaminated, and therefore, should be tested prior to disposal, according to the Inland Testing Manual and/or the Upland Testing Manual, depending on the disposal method (both open water and upland disposal are proposed).
- The PN provides no information regarding impacts of the proposed project on water bodies, including tidal waters, and freshwater streams and rivers.
- The only information provided regarding estimation of project impacts on wetlands or waters of the U.S is the following:
  - *The applicant made their determination of credits by running several functional assessment methods (iHGM, HGM, LRAM, TXRAM, WVA, and UMAM) and averaging the resulting ratios to arrive at a combined ratio average of 1.62 for the proposed project.*
- The PN provides almost no information regarding proposed mitigation. The so-called "mitigation plan" submitted with this PN consists of 3 maps, which only show the

IND1-1 FERC notes that these comments are regarding the U.S. Army Corps of Engineers' Public Notice and would be addressed as part of that agency's permitting process.

IND1-1 (cont'd)

location of the proposed project, and the generalized location of mitigation marshes. No information is provided regarding the actual proposed location of mitigation marshes, what type of marsh this would be created/restored for mitigation, or what the functional quality of these marshes would be. No information is provided to demonstrate that the dredged material with which these mitigation wetlands would be created is suitable for disposal in the aquatic environment (e.g. Is it contaminated?).

Recommendations

Do not permit the proposed project unless and until the following is done, and results indicate that issuance of a permit is appropriate:

- The applicant must be required to demonstrate that the 404(b)(1) Guidelines have been met, and such documentation must be provided to the public for review and comment. Currently the PN does not demonstrate that the applicant has met the requirements of the Guidelines.
    - The applicant must be required to demonstrate that they have considered all practicable alternatives to the proposed project. This documentation must be provided to the public for review and comment. Currently, the PN does not demonstrate they have considered alternatives at all.
    - The applicant must be required to demonstrate that they have taken actual concrete steps to avoid and minimize impacts to wetlands and waters of the U.S., and this documentation must be provided to the public for review and comment. Currently, the PN does not demonstrate they have done anything to avoid and minimize impacts to weltands and waters of the U.S.
- The applicant must provide detailed information regarding the wetland proposed to be destroyed, including what types of wetland they are, exactly where they are, and estimates of their quality/functionality. In addition, the applicant must provide estimates of the loss rates of the wetlands at the facility site over time, for use in estimating mitigation requirements. This information must be provided to the public for review and comment.
- The applicant must provide detailed information regarding the mitigation proposed for compensation for destruction of wetlands on the facility site, as well as those proposed to be destroyed by the pipelines. The applicant must provide information regarding the location, type, quality, and future loss rates of the proposed tidal mitigation wetlands. The applicant must provide information regarding target wetland elevation at a specific year, initial fill elevation, and settlement curves, in order to assess whether the proposed wetlands are likely to be successful. This information must be provided to the public for review and comment.
- Under no circumstances should a permit be issued for this proposed project without testing the dredged material to be disposed. Testing should include, at a minimum, bulk chemical analysis and elutriate testing, for a broad suite of contaminants. However, additional testing may be required, as per the appropriate testing manuals. In addition, the applicant would be well advised to protect themselves by testing sediments in the proposed area for marsh creation. Previous marsh creation efforts were carried out nearby even though dredged material testing data indicated very high concentrations of legacy

IND1-1 (cont'd)

pesticides. While there are questions regarding the quality of the laboratory analytical methods, there has been no testing of soils of the wetlands that were created using the potentially contaminated dredged material.

- Under no circumstances should a permit be issued for this proposed project without much more information regarding project impacts to wetlands and other waters of the U.S.
- Under no circumstances should a permit be issued for this project without much more information regarding proposed compensatory mitigation.
- FERC and the applicant should be informed immediately regarding the inadequacy of the information the applicant has apparently provided in support of the Clean Water Act Section 404 permit.

Sincerely,
Kenneth G. Teague, PWS, Certified Senior Ecologist
Austin, TX

Sent from Mail for Windows 10

20181022-0006 FERC PDF (Unofficial) 10/22/2018

FEDERAL ENERGY REGULATORY COMMISSION
PORT ARTHUR LIQUEFACTION PROJECT, TEXAS CONNECTOR PROJECT, AND LOUISIANA CONNECTOR PROJECT

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below; or (3) electronically filed.[1]

If by mail, please send one copy referencing Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001, or CP18-7-000 to:

For Official Filing:
Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

ORIGINAL

2018 OCT 22 A 8:48

Please indicate the public scoping session that you attended:

- ☐ October 16, 2018 in Kinder, LA
- ☐ October 17, 2018 in Port Arthur, TX
- ☒ October 18, 2018 in Sulphur, LA

COMMENTS: (PLEASE PRINT) [*continue on back of page if necessary*]

Sempra Cameron LNG has been a positive investment in SWLA.
IND2-1 I'm the closest resident to the plant. All construction matters are handled in a professional manner with great concern for the private community. They always are willing to hear concerns and act on correcting them.

Commenter's Name and Mailing Address (***Please Print***)

Sheron Faulk
4313 Lake St
Lake Charles LA 70605

[1] **The Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site at http://www.ferc.gov under the "e-Filing" link and the link to the User's Guide. Before you can file comments you will need to create a free account by clicking on "Login to File" and then "New User Account".**

IND2-1 Comments noted. Socioeconomic effects are discussed in section 4.9.

ORIGINAL

CP18-7-000

IND3-1 Photos and a map of an alternative submitted by Chester Wimberly during the public comment session in Kinder, Louisiana on October 16, 2018. These items are supported by Mr. Wimberly's comments, which will appear in the transcript (when available) from the public comment session.

2018 OCT 22 A 8:52

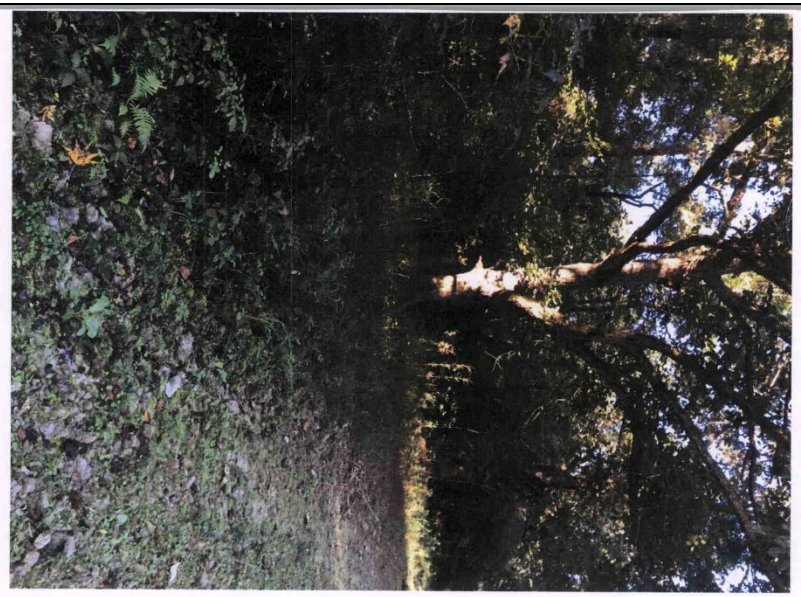
IND3-1 Comment noted. Section 3.4 of the final EIS has been updated to include an analysis of this proposed alternative.

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS



INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

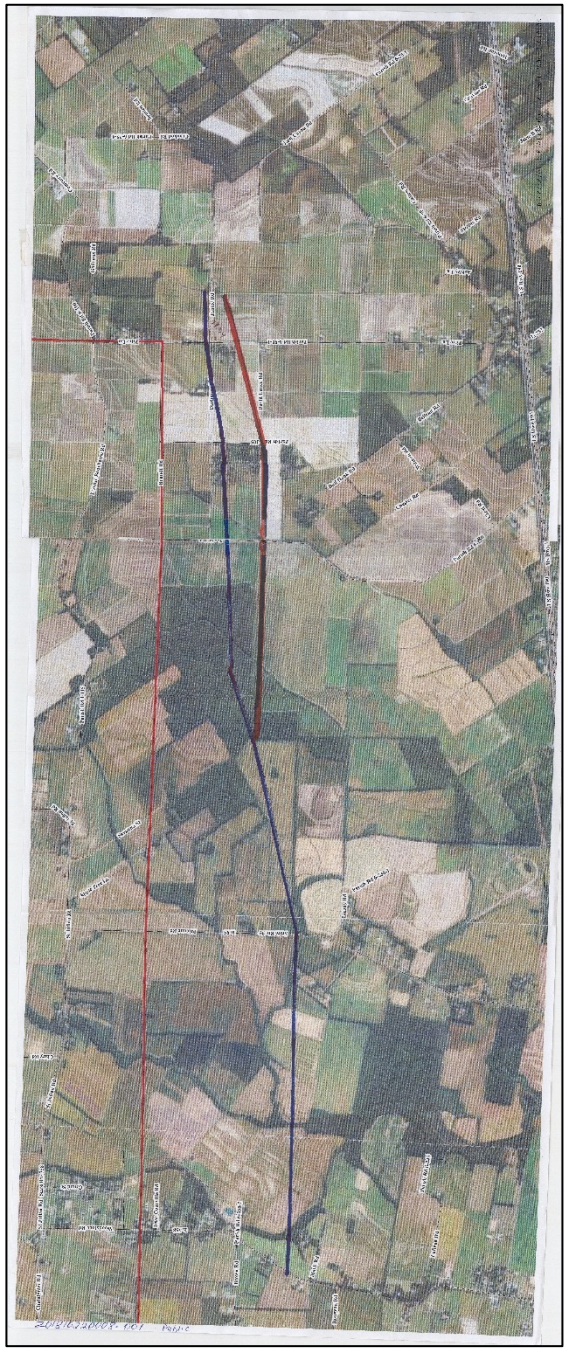
INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS

INDIVIDUAL COMMENTS



Sheila Faske, Rose City, TX.

IND4-1 As our area recovers from the Hurricane Harvey disaster, the Port Arthur LNG project will bring much needed economic development to our community.

We look forward to the revenues the workers would bring to our local stores, restaurants, and hotels.

The significant new taxes will benefit our schools, parks, ports, waterway, city and county.

IND4-2 The relocation of Highway 87 away from the ship channel will help local traffic flow to the Sabine Pass community. Using the Texas Department of Transportation standards on building the new portion of the highway will benefit the community by reducing the risks of flooding.

IND4-1 (cont'd) We need community investments in our local organizations like chambers, schools and non-profits. In fact, Sempra LNG is already providing contributions to partner with several local businesses and community organizations, as well as the Port Arthur ISD, Sabine Pass ISD and Lamar State College - Port Arthur.

Our families will greatly be helped with the construction and permanent jobs for Port Arthur LNG and associated pipelines. The creation of approximately 3,500 on-site engineering and construction jobs at the peak of construction and an estimated 1,300 jobs averaged over the 4- to 5-year construction will enhance our economy. 200 full-time jobs would be created for operations and maintenance of the facility on a long-term basis. Additional jobs would be created by construction and operation of the proposed pipelines.

Significant new jobs and revenues for businesses that do construction work or provide construction supplies or services for terminal operations like maintenance, security, landscape, shipping, will also be grown.

This project takes a large, non-productive piece of property and turns it into a productive, significant revenue generator.

A multi-billion dollar project, Port Arthur LNG, will create significant new taxes which will benefit our region.

Port Arthur LNG export will contribute to the Golden Triangle's position as a leader in providing energy to the world.

Port Arthur liquefaction has a location advantage due to the natural gas demand driven by gas and LNG exports and other industrial activity in the U.S. Gulf Coast area.

Thank you for your time.

IND4-1 Comments noted. Socioeconomic effects, including tax revenue, job creation, and economic development, are discussed in section 4.9 of the final EIS.

IND4-2 Sections 2.1.4.1, 4.2.1.4, 4.3.2.1, 4.9.6.3, and 4.12.12 of the final EIS have been updated to indicate possible benefits of the relocation of SH 87 as noted by commenters.

November 1, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

OEP/DG2E/Gas 4
Port Arthur LNG, LLC; PALNG Common Facilities Company, LLC;
and Port Arthur Pipeline, LLC
Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001, and CP 18-7-000

Dear Ms. Bose: Please find my comments on the subject docket, enclosed. To summarize, the DEIS is inadequate for several reasons:

- Alternatives were not adequately considered.
- Avoidance and minimization of impacts to aquatic habitats may not be adequate.
- Disclosure of environmental impacts is unacceptable, in view of the fact that the public were not provided any dredged material testing data, but are expected to simply trust that they demonstrate no risk to the environment.
- Proposed future additional dredged material testing fails to provide the public the required opportunity to review and comment on the impacts of the proposed project, as required under NEPA.
- The DEIS does not provide any details regarding the proposed 1200+ acres of estuarine marsh to be constructed using dredged material as mitigation.
- The proposal fails to factually disclose the true impacts of the proposed pipelines, and fails to propose full mitigation for these impacts.
- While FERC's procedures would theoretically provide some avoidance, minimization, and restoration of impacts to waters of the US, the large number of exclusions to these requirements granted to the project sponsor by FERC, render those procedures largely irrelevant.
- The DEIS does not adequately disclose the potential impacts of construction and operation of the liquifaction plant, on nearby water quality.
- FERC's analysis clearly ignored some of these issues.

These comments represent an overview of my concerns for the DEIS. While FERC and other agencies may expect reviewers to document specific sections, pages, paragraphs, and sentences, that represent specific concerns, the effort such a review and comment process would require represents a poor use of my time. FERC staff and their contractors are certainly capable of identifying sections, pages, paragraphs, and sentences of the DEIS on which my more general comments are based. The fact that I am not identifying such specific sections, pages, paragraphs, and sentences in the document, should not detract from the validity of my more general comments.

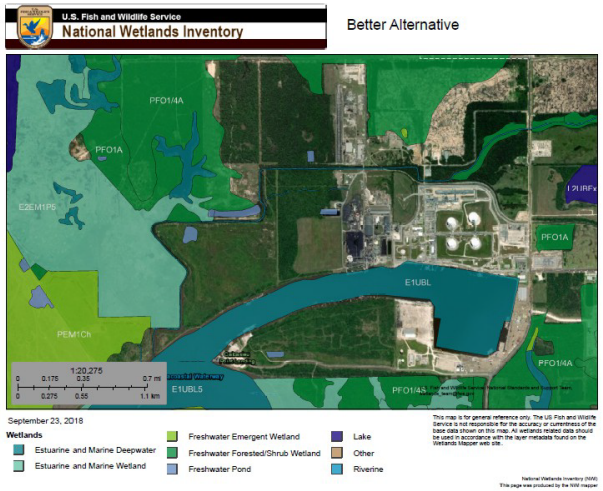
Sincerely,
Kenneth G. Teague, PWS, Certified Senior Ecologist
Austin, TX

Comments
Kenneth G. Teague, PWS, Certified Senior Ecologist
November 1, 2018

Port Arthur LNG Project
Draft Environmental Impact Statement
Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project
Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001, CP18-7-000
FERC/DEIS-0285D
September, 2018

IND5-1

- **The DEIS does not adequately evaluate all the reasonable alternatives.**
  - The DEIS did not evaluate an obvious alternative to the proposed LNG facility, located about 45.2 mi NE of the proposed site, on the eastern side of the lower Calcasieu River in southwest Louisiana:



The alternative location is the undeveloped upland tract on the N side of the dredged artificial water body in the image above. It seems highly likely that this alternative would impact fewer wetlands.

IND5-1 Section 3.3 of the final EIS has been revised to analyze the suggested alternative liquefaction terminal site.

Also, as noted in its November 19, 2018 supplemental filing with FERC, PALNG reviewed the proposed location's availability of sale and determined the property is owned by the Lake Charles Harbor and Terminal District and the properties on the north bank are currently leased. Entities proposing LNG export terminals under Section 3 of the Natural Gas Act must show that they have or can obtain control of the site they are proposing to utilize for a project.

20181101-5072 FERC PDF (Unofficial) 11/1/2018 12:00:33 PM

IND5-2
- It is not clear if the project sponsor sufficiently considered pipeline route alternatives that would have avoided and minimized impacts to waters of the U.S, more than the proposed alternative.

IND5-3
- The DEIS does not appear to consider pipeline alternatives that are fully compliant with FERC's Plan and Procedures. Since Driftwood requested many deviations from FERC's Plan and Procedures, such alternatives clearly should have been considered. They would almost certainly result in fewer wetland and water body impacts.

IND5-4
- The DEIS does not reflect that the project sponsor considered, when deciding to cross tidal water bodies and estuarine wetlands, the possibility that waters of the US might be impacted less if crossing methods other than were used. HDD is desirable for crossing upland streams in order to minimize impacts to stream habitat, water quality, and riparian wetlands. However, considerations are different in tidal waters and coastal wetlands. The coastal water bodies the proposed pipelines would cross may not contain habitats, other than emergent marsh, and much less likely, oyster reefs, which would warrant use of HDD. Review of the pipeline maps suggests that in these areas, impacts to wetlands at the sites of pipeline insertion and withdrawal, might be greater than the impacts to wetlands using other crossing methods. This needs to be checked. The crossing method with the least impacts to wetlands should be selected, when crossing wetlands.

- **The DEIS does not demonstrate adequate avoidance and minimization of impacts to aquatic habitats.**

IND5-5
  - The project sponsor did not consider the LNG site alternative discussed above.

IND5-6
  - The project sponsor did not consider alternatives that more fully (or fully) implement FERC's Plans and Procedures. Such alternatives would result in fewer impacts to wetlands and water bodies.

IND5-7
  - The DEIS does not include any dredged material testing data, only assertions that it doesn't indicate any concerns.

IND5-8
  - It is not clear that the sponsor correctly assessed the suitability of dredged material for disposal in the aquatic environment. No data were provided. Additional data are proposed, but they will not be made available for public review and comment.

- **The DEIS does not adequately disclose the likely environmental impacts of the proposed project.**

IND5-9
  - The DEIS does not include appropriate dredged material testing data and analysis, for determination of suitability for disposal in the aquatic environment.
    - The DEIS mentions that there is some dredged material testing data, and that it indicates the dredged material is suitable for disposal in the aquatic environment. However, no data are provided. The public is expected to simply trust FERC and the project sponsor that this conclusion is correct. This is not consistent with NEPA. It is also my experience that few people working on the Texas/Louisiana coast understand how to properly test dredged material, and how to interpret the results. In addition, I have no reason to believe that FERC staff working on this EIS have such knowledge.
    - The DEIS proposes the sponsor will conduct additional dredged material testing in the future. However, no commitment to provide these data to the public for review and comment exists in the DEIS. This is not consistent with NEPA.

IND5-2 Applicants are encouraged by FERC to evaluate collocation of their proposed pipelines with existing rights-of-way to reduce overall environmental impacts. PAPL proposes to collocate the Texas Connector Project for about 43 percent of its length and the Louisiana Connector Project for about 73 percent of its total length. Further, applicants often request deviations from a baseline route based on evolving environmental field data, agency consultations, FERC data requests, and input from stakeholders; the proposed route is the result of this process. As discussed in section 2.4.3.1 of the final EIS, PAPL proposes to use the HDD method at 24 locations for the Texas Connector Project and 26 locations for the Louisiana Connector Project to avoid direct impacts on waterbodies and wetlands. In addition, the bore method would also be used at multiple locations, such as roads, to avoid direct impacts on feature crossings.

Use of the HDD method would avoid direct impacts along 26.3 miles of pipeline, including 34 waterbodies and 38.8 acres of wetland along the Texas Connector Project route and 46 waterbodies and 50.8 acres of wetland along the Louisiana Connector Project route. Of the waterbodies and wetlands outside of HDD areas, PAPL would use one of a variety of other crossing methods, as described in section 2.4.3 of the final EIS. PAPL would cross all waterbodies and wetlands in accordance with its *Wetland & Waterbody Construction & Mitigation Procedures* (PAPL's Procedures) that are derived from FERC's Procedures, which were developed as baseline best management practices to minimize or mitigate for impacts on waterbodies and wetlands. No specific alternative wetland or waterbody crossing methods or crossing locations were suggested by stakeholders during scoping, nor were any specific comments received on any of PAPL's proposed variations to its Procedures. Other commenters on the draft EIS have recommended minor variations, which are discussed in the route alternatives section. It is also important to note that although wetlands and waterbodies are very important features, applicants must balance impacts on other resources when routing a pipeline.

IND5-3 This comment references the Driftwood project, which is not the subject of this final EIS.

Sections 4.3.2.3 and 4.4.3.2 of the final EIS discuss PAPL's requested variations to the FERC's Procedures. Section 3.4 has been updated to consider routes that would be fully compliant with FERC's Procedures.

IND5-4 See response to comment IND5-2. Tidal waters, estuarine wetlands, and coastal wetlands were identified through PAPL's agency consultations and field survey results. Impacts on waterbodies, wetlands, and essential fish habitat; PAPL's agency consultations; and PAPL's proposed and our recommended mitigation measures are described throughout sections 4.3.2, 4.4.2, and 4.6.3 of the final EIS. Regarding oyster beds, PAPL would use the HDD method at the shorelines of Sabine Lake to avoid aquatic habitats and oyster beds. Further, as discussed in section 3.4.1 of the final EIS and as a result of its consultations with the LDWF, PAPL adopted a route that would avoid crossing Tier 1 Public Oyster Seed Grounds and Tier 1 level protected oyster habitat in Louisiana. Also see response to comment SA3-3.

With regards to selecting the crossing method with the least impacts on wetlands, FERC notes that it is responsible for conducting NEPA and disclosing the impacts associated with the proposed action. FERC uses the public scoping process, stakeholder input, and federal and state-agencies, in addition to its own independent review, to identify where alternatives to avoid or minimize impacts on wetlands and/or to identify mitigation measures above those proposed by an applicant. Regardless, as demonstrated in its data requests to the PAPL (for example, February 13, 2017), we identified several areas where ATWS could potentially be modified to avoid impacts on wetlands and waterbodies, and we reviewed and requested justification for PAPL's requests to deviate from the FERC's Procedures. We also note that the commenter does not provide any specific-locations for our analysis; however, when crossing a wetland by HDD, no regular maintenance occurs over the right-of-way. HDD workspace could result in disturbance to wetlands, but that disturbance would be allowed to revert to preconstruction conditions, and be subject to any mitigation required by permitting agencies. All other wetland/waterbody construction methods would require maintenance of the right-of-way for the life of the project. The extent of the maintenance would vary based on the vegetation type, but generally this would result in a greater permanent impact as compared to a crossing using an HDD.

IND5-5 See response to comment IND5-1.

IND5-6 See response to comment IND5-3.

IND5-7 PALNG filed a copy of its site assessment with FERC on October 2, 2017, which is available for public review on FERC's eLibrary. The site assessment provided is the result of several prior site assessments conducted in support of previous iterations of the liquefaction project. The conditions of the project property meet the TCEQ's Tier 1 Commercial/Industrial Protective Concentration Levels for soils and groundwater. The results of the site assessment are summarized in the EIS. As stated in section 4.2.1.7 of the final EIS, PALNG has committed to resampling the area within the ship canal at the marine berth, construction dock, and MOF due to receiving new sediment loads since the original sampling analysis was conducted; resampling sediments at the landward component of the MOF as recommended by the EPA; and conducting this resampling in accordance with the EPA's Inland Testing Manual prior to dredging and disposal. When the applicant files its dredge material testing results, they would be posted to FERC's eLibrary and made available to the public.

IND5-8 See response to comment IND5-7.

IND5-9 See response to comment IND5-7.

20181101-5072 FERC PDF (Unofficial) 11/1/2018 12:00:33 PM

IND5-10
- This dredged material should not be permitted to be disposed of in the aquatic environment until it is demonstrably properly tested according to the Inland Testing Manual, and the results provided to the public for review and comment.
  - A Final EIS must not be produced until the dredged material is properly tested using the Inland Testing Manual, and the results are provided to the public for review and comment.
- The DEIS, similar to other assessments of pipeline impacts I have reviewed recently, does not factually state the real impacts to wetlands.

IND5-11
  - The DEIS asserts that forested wetlands can be destroyed, and they will simply restore themselves if allowed to do so. This cannot be assumed. While it is possible, it is also highly likely that whatever vegetation establishes on these sites will not be similar to what was there before. In addition, even if forested wetlands reestablish here, there will be a highly significant temporal loss of function, perhaps for as long as a century, potentially even more. The sponsor should be required to mitigate fully for all losses of forested wetlands, even if deemed "temporary". Any proposals for restoration of forested wetlands impacted by these pipelines should require vegetative plantings of the tree species that were destroyed by the proposed pipeline, assuming they were representative of the pristine ecosystem at these locations. Plantings should be monitored, and if unsuccessful, they should either be replanted, or other in kind mitigation should be required.

IND5-12
  - The DEIS asserts that shrub wetlands can be destroyed, and they will simply restore themselves if allowed to do so. This cannot be assumed. While it is possible, it is also highly likely that whatever vegetation establishes on these sites will not be similar to what was there before. In addition, even if forested wetlands reestablish here, there will be a significant temporal loss of function, perhaps for as long as several decades. The sponsor should be required to mitigate fully for all losses of shrub wetlands, even if deemed "temporary". Any proposals for restoration of shrub wetlands impacted by these pipelines should require vegetative plantings of the shrub species that were destroyed by the proposed pipeline, assuming they were representative of the pristine ecosystem at these locations. Plantings should be monitored, and if unsuccessful, they should either be replanted, or other in kind mitigation should be required.

IND5-13
  - The DEIS asserts that herbaeous wetlands (marshes) can be destroyed, and they will simply restore themselves if allowed to do so. This cannot be assumed. While it is possible, it is also possibl that whatever vegetation establishes on these sites will not be similar to what was there before. In addition, even if herbaceous wetlands reestablish here, there will be a temporal loss of function, perhaps for as long as a decade. The sponsor should be required to mitigate fully for all losses of herbaceous wetlands, even if deemed "temporary". Any proposals for restoration of herbaceous wetlands impacted by these pipelines should require vegetative plantings of the species that were destroyed by the proposed pipeline, assuming they were representative of the pristine ecosystem at these locations. Plantings should be monitored, and if unsuccessful, they should either be replanted, or other in kind mitigation should be required.

IND5-14
- The DEIS does not disclose, with any meaningful detail, the impacts of the pipeline crossings through water bodies.

IND5-10 Dredge material placement would be conducted in accordance with USACE, Sabine-Neches Navigation District (SNND), TCEQ, and TPWD regulations and requirements. As stated in sections 4.2.1.7 and 5.2 of the final EIS, we are recommending that, as part of any final Order for the Projects, PALNG provide the soil and sediment analysis conducted at the area within the ship canal at the marine berth, construction dock, MOF, and landward component of the MOF to the EPA, USACE, TCEQ, and Texas RRC for review prior to construction. Further, as stated in Environmental Recommendation 17 in section 5.2 of the final EIS, PALNG would file the conclusions of these reviews with the Secretary along with documentation of its consultations with these agencies, including any measures PALNG would need to adopt if the analysis discovers previously unknown contamination.

IND5-11 Section 4.4.2.2 of the final EIS identifies the impacts associated with pipeline construction through forested wetlands, discloses that the impact of construction on forested wetlands would be long term due to the long regeneration period of these vegetation types (30 years or more), and discloses that forested wetlands within the permanent maintained right-of-way would be converted to palustrine or scrub-shrub wetlands. Section 4.4.2.2 of the final EIS states that all temporarily impacted wetlands would be restored to preconstruction contours and allowed to revegetate in accordance with PAPL's *Environmental Plan*, that PAPL is required to consult with federal and state agencies to develop a project-specific restoration plan, and that PAPL would monitor and maintain the site until revegetation has been successful, which is further defined in the final EIS. The final EIS further acknowledges that PSS and PFO wetlands within a 10-foot-wide corridor would be permanently converted to emergent wetland and an additional 20-foot-wide corridor (extending 10 feet on either side of the 10-foot-wide corridor centered over each pipeline) through PFO wetlands would be permanently converted to PSS wetland, and that these changes would represent a potential permanent change in wetland function. Additionally, unavoidable wetland impacts must be offset by the creation, restoration, enhancement, or preservation of at least an equal amount of wetlands, which is referred to by the USACE as compensatory mitigation. PAPL would use credits purchased from USACE-approved mitigation banks and agency in-lieu fee programs to provide compensatory mitigation for both the Louisiana Connector and Texas Connector Projects. As stated in section 5.2, Environmental Recommendation 10 would require PALNG and PAPL to file with the Secretary documentation that they have received all applicable authorizations required under federal law (or evidence of waiver thereof) prior to commencing construction.

Also see response to comment SA3-1 for additional details regarding PAPL's compensatory mitigation plan.

IND5-12 See response to comment IND5-11. Section 4.4.2.2 of the final EIS discloses the impacts associated with scrub-shrub wetlands.

IND5-13 See response to comment IND5-11. Section 4.4.2.2 of the final EIS discloses the impacts associated with herbaceous wetlands.

IND5-14 Section 2.4.3.1 of the final EIS describes several waterbody crossing methods, while section 4.3.2.2 (Pipeline Installation Methods) identifies the impacts associated with pipeline construction through waterbodies along with the mitigation measures proposed by PAPL.

Also see response to comment SA3-1.

IND5-14 (cont'd)
- The DEIS does not include any detailed assessment of the impacts of proposed pipeline crossings of upland stream habitats, water quality, or aquatic communities. No mitigation for such impacts is proposed. Based on my experience, this appears to be inconsistent with the policies of the Galveston District, USACE.

IND5-15
- The DEIS does not disclose the impacts of fragmentation of forested wetlands, caused by the proposed pipeline routing.

IND5-16
- The DEIS does not disclose the potential impacts of proposed dredging on dissolved oxygen concentrations in bottom waters. Dredged channels often experience lower DO concentrations in bottom waters than undredged water bodies. Low DO renders aquatic habitat unsuitable for aquatic life.

- **The DEIS does not propose adequate environmental mitigation for project impacts**
  - The mitigation proposed for the proposed pipelines, for impacts to wetlands and stream habitats, is particularly inadequate.

IND5-17
- Due to the long time required for forested wetland restoration, the DEIS should have committed to provide mitigation for temporal impacts, which it does not.

IND5-18
- Rather than requiring the environment to absorb the temporal impacts, Driftwood should be required to expedite restoration of herbaceous wetlands impacted by the proposed pipeline, by vegetative plantings.

IND5-19
- No mitigation is proposed for impacts to water bodies from pipeline crossings.

- **The DEIS is unclear regarding whether the full cost of compensatory mitigation is to be borne by the sponsor, or whether government agencies are planning to bear some of the cost**

IND5-20
  - The DEIS indicates that the project sponsor will provide dredged material for creation/restoration of estuarine marshes on property of Texas Parks and Wildlife Department. However, it is unclear whether the project sponsor will be responsible for all aspects of the required mitigation, or whether the sponsor's mitigation requirement will be subsidized by efforts of Texas Parks and Wildlife Department, and possibly other agencies or government funds (e.g. DU, Restore Act funds). The latter would represent an unacceptable Federal/State subsidy of mitigation costs that is not compliant with the Mitigation Rule.

IND5-21
- **I recommend the project sponsor consider creating/restoring more estuarine marsh than is currently proposed, or provide the dredged material for another organization to do so, provided the dredged material is properly tested and found to be suitable for disposal in the aquatic environment.**

IND5-15 Section 4.6.1.2 of the final EIS discusses the potential impacts of fragmentation of vegetation on wildlife resources, including habitat. This section has been updated to include the words "forested wetlands."

IND5-16 Sections 4.3.2.2 and 4.6.2.2 of the final EIS discuss the impacts of dredging on dissolved oxygen concentrations and the impacts from lower dissolved oxygen concentrations on aquatic life.

IND5-17 See response to comment IND5-11.

IND5-18 This comment references the Driftwood project, which is not the subject of this final EIS.

PALNG and PAPL would adopt the wetland restoration measures identified in their Project-Specific Environmental Plan, which is based on our *Wetland and Waterbody Construction and Mitigation Procedures*, which includes consultation with the appropriate federal or state agencies to develop a project-specific wetland restoration plan that include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and *Phragmites*), and monitoring the success of the revegetation and weed control efforts. As discussed in the EIS, a draft wetland compensatory plan has been submitted to the USACE. As stated in section 5.2, Environmental Recommendation 10 would require PALNG and PAPL to file with the Secretary documentation that they have received all applicable authorizations required under federal law (or evidence of waiver thereof) prior to commencing construction, which includes authorizations from the USACE.

IND5-19 FERC notes that mitigation includes avoidance of impacts, reduction of impacts, or compensation (e.g., monetary; creation of new habitat to replace that lost or impacted). As described in section 4.3.2.2 (Texas Connector and Louisiana Connector Projects) of the final EIS, PAPL would reduce impacts on waterbodies by using the HDD method at 50 locations, of which 80 waterbodies would be crossed within these areas. Section 4.3.2.2 further states that PAPL would implement the construction and mitigation measures described in PAPL's *Environmental Plan*, which includes the FERC's Procedures, to minimize impacts on surface waters. Also, as stated in section 5.2, Environmental Recommendation 10 requires that PALNG and PAPL file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof) prior to commencing construction, which includes the appropriate waterbody crossing permits (which may be subject to further mitigation requirements) from the USACE.

IND5-20 Once the dredge material is transferred to the disposal location, it would become the responsibility of the landowner(s) that have voluntarily agreed to receive the material and/or any landowner agreements made with PALNG. Should the landowner require additional considerations, such as monetary compensation for continued maintenance, these would be arranged to during easement negotiation and/or the land-managing agency's permitting process.

IND5-21 Comment noted.

IND5-22

- **The DEIS does not adequately disclose the potential impacts of construction and operation of the liquifaction plant, on nearby water quality.**
  - The DEIS implies there is no need to evaluate the potential impacts of construction and operation of the liquifaction plant on water quality, because the sponsor asserts that *because the facility is an oil and gas production facility, it is exempt from stormwater runoff regulatory requirements.*

    While I do not know if this is correct, it is a cynical interpretation of the law if it is. Nevertheless, regardless of the law on environmental regulation of oil and gas production facilities, and their interpretation, NEPA law requires disclosure of environmental impacts. Environmental impacts are not only defined by regulatory requirements. Clearly, during construction and operation of the facility, stormwater runoff would carry pollutants into nearby water bodies. In fact, if best management practices to minimize stormwater pollutant loading are not implemented, because they are not required, then the pollutant loadings from stormwater would be even greater, and thus the potential for water quality impacts would be greater. Therefore, I assert that FERC should have disclosed the potential impacts of construction and operation of the liquifaction facility, on water quality, via stormwater runoff.

These comments represent an overview of my concerns for the DEIS. While FERC and other agencies may expect reviewers to document specific sections, pages, paragraphs, and sentences, that represent specific concerns, the effort such a review and comment process would require represents a poor use of my time. FERC staff and their contractors are certainly capable of identifying sections, pages, paragraphs, and sentences of the DEIS on which my more general comments are based. The fact that I am not identifying such specific sections, pages, paragraphs, and sentences in the document, should not detract from the validity of my more general comments.

IND5-22 Section 4.3.2.2 of the final EIS addresses the impacts anticipated from site modification and stormwater runoff. The EIS acknowledges that stormwater runoff may pick up debris, chemicals, soil, and other pollutants before entering directly into a waterbody. The EIS also describes that PALNG would implement a Stormwater Pollution Prevention Plan to minimize impacts from stormwater.

20181109-5076 FERC PDF (Unofficial) 11/9/2018 1:09:41 PM

Roy Breaux, Port Neches, TX.
COMMENTS ON DRAFT ENVIRONMENTAL IMPACT
STATEMENT FOR PROPOSED PORT ARTHUR PIPELINE
TEXAS CONNECTOR PROJECT, PROJECTS DOCKETS
NO. CP17-20-000, CP17-21-000, AND CP18-7-000
11/9/18
Comments to Volume I of the draft EIS submitted by Roy Breaux follow.
Volume I

IND6-1 • ES-6 - Air Quality and Noise. Excessive dust created during pipeline installation needs to be suppressed.

IND6-2 • 2.4.2.2 - Due to top soil being very thick at Milepost 15, at least two feet of top soils needs to be segregated.

IND6-3 • 4.8.5.2 - The draft EIS states that no planned residential or commercial developments are in the Texas Connector Project. Highland Ranch Subdivision is planned at Milepost 15. The residential and commercial development is located in the Port Arthur City Limits and the Port Arthur Extra-Territorial Jurisdiction (ETJ). The Master Plan for the development was approved by the Port Arthur City Council on 6/16/08. Plans for the development are currently in progress. Location of the pipeline away from the Golden Pass Pipeline easement would result in great economic damage to the development project.

IND6-4 The EIA states that a 125-foot-wide construction width will be required. A 5/10/15 email from Port Arthur Pipeline representative Jason Thornton to Roy Breaux stated that a 300-foot-wide work space would be required. This workspace will completely surround a metal building located along Milepost 15. Mr. Thornton was informed that this unreasonable workspace width was not acceptable and that the pipeline needed to find a route to the west of the property.

The listed 125-foot construction width is much more than 100-foot width that was required by the Golden Pass Pipeline at Milepost 15 for its 42-inch pipeline. The construction width needs to be a maximum of 100 feet.

IND6-5 Pipeline installation equipment operating close to the metal building at Milepost 15 will cause ground movement resulting in settlement of the expansive soil under the building and foundation failure. Any construction equipment close to a building needs to move slow to prevent movement of the ground.

Location of the pipeline to the east of the building would cause fragmentation of the property and greatly reduce its commercial value.

IND6-6 Many workers will be involved in the installation of the proposed pipeline making it difficult for the landowner to know who belongs to the work crews or who is entering the properties to cause damage or steal from the landowner. The pipeline company needs to provide 24-hour security near buildings and landowner equipment.

IND6-1 As discussed in section 4.11.1.3 of the final EIS, PAPL would employ the dust suppression measures in its *Fugitive Dust Control Plans*, such as water suppression, covering truckloads during transit, limiting on-site vehicle speed, paving or grading of roadways, and removing track-out on public roads, where necessary along its workspace.

IND6-2 Section 2.4.2.2 states that PAPL would remove at least the top 12 inches of topsoil where 12 or more inches of topsoil is present; however, as discussed in section 4.8.3, landowners have the opportunity during easement negotiations with the applicant to request measures that go above and beyond those required by FERC.

IND6-3 We contacted the City of Port Arthur Planning and Zoning Department on November 16, 2018, and the Jefferson County Engineering Department on November 27 and 28, 2018, and neither agency had records of the Highland Ranch Subdivision. Regardless, it is possible that construction of the Texas Connector Project could conflict with the planned development. If construction dates were to overlap, conflicts with the developer's planned construction activities at this site could occur on a temporary basis. Landowners would have the opportunity to request that development plans for their property be considered during easement negotiations with PAPL and that specific measures to accommodate future plans be considered. Pipeline infrastructure would generally be consistent with areas already zoned for industrial development, and most land uses within other zoned areas would be allowed to continue during pipeline operation without conflict.

As discussed in section 4.8.1 of the final EIS, to facilitate pipeline inspection, operation, maintenance, and emergency response access, a 50-foot-wide operational right-of-way would be maintained along the pipelines and laterals, which would be routinely cleared of trees. Also, certain activities would be prohibited within the permanent right-of-way, such as the planting of trees or the construction of permanent structures, including houses, house additions, trailers, tool sheds, garages, poles, patios, pools, septic tanks, or other objects not easily removable. All other disturbed areas would be restored to their preconstruction conditions, and land uses would not be precluded from continuing.

Also, as described in section 4.8.3 of the final EIS, PAPL must obtain an easement from a landowner to construct and operate natural gas facilities or acquire the land on which the facilities would be located. If an easement cannot be negotiated with a landowner and the project has been certificated by FERC, an applicant may use the right of eminent domain granted to it to obtain the right-of-way and extra workspace areas. Applicants would still be required to compensate the landowner for the right-of-way and for any damages incurred during construction; however, a court would determine the level of compensation if a Certificate is issued.

IND6-4 As discussed in section 2.2.2.1 of the final EIS, due to the size of the pipe and the soil conditions, PAPL has requested a 125-foot-wide construction right-of-way to adequately contain soils and provide for a safe working surface during construction of the Texas Connector Project. ATWS would also be required as necessary for most road and waterbody crossings. A corridor

measuring 300 feet wide and centered on the pipeline centerline was surveyed for environmental purposes, but only a portion of this area would be affected by construction. Based on a review of the alignment sheets, which were filed with PAPL's final application and are available on FERC's eLibrary (accession number 20161129-5284), the workspace and an ATWS required for road and utility crossings near MP 15 would be a combined width of 175 feet.

IND6-5 PAPL's workspace and ATWS would be located 55 feet from the shed near MP 15. In accordance with FERC's Plan, which PAPL has adopted, PAPL is required to restore disturbed areas to preconstruction conditions and, amongst other things, address landowner concerns. If the area of construction indicates settlement, the landowner would have the opportunity to request additional restoration efforts. Also in accordance with FERC's Plan, restoration would be considered successful if the right-of-way surface is similar to adjacent undisturbed areas.

IND6-6 No person would be allowed to access the construction right-of-way without first obtaining the appropriate training from PAPL. Any additional requests of PAPL, such as maintaining the security of a property to ensure theft does not occur, would be negotiated with PAPL during the easement negotiations.

20181109-5076 FERC PDF (Unofficial) 11/9/2018 1:09:41 PM

IND6-7 The only pipeline route acceptable to the landowner at Milepost 15 is inside the existing Golden Pass Pipeline easement or the Port Arthur Pipeline centerline being at the east edge of the Golden Pass Pipeline easement. If this route is not approved, Roy Breaux does not approve of the pipeline being located on his property at Milepost 15 due to the excessive workspace width and possible fragmentation of the property.

IND6-1 (cont'd) • 4.11.1.3 – Air Quality Impacts and Mitigation – Fugitive dust from material transfer and construction equipment travel will create excessive dust. Fugitive dust control plans must be made available to landowners so that they will know what will be done to control dust.

IND6-7 Based on a review of PAPL's alignment sheets for the Texas Connector Project and the landowner's property at about MP 15.4, the proposed pipeline would be located on the eastern edge of an existing Qatar Petroleum/ExxonMobil/ConocoPhillips pipeline easement, which are the joint ventures associated with the Golden Pass LNG project and pipeline. As such, PAPL is proposing to locate its pipeline centerline approximately 50 feet from the Golden Pass Pipeline centerline. This offset is generally accepted as industry standard to support operational and maintenance activities when pipelines are owned by different entities.

20181109-5077 FERC PDF (Unofficial) 11/9/2018 1:15:12 PM

Roy Breaux, Port Neches, TX.
COMMENTS ON DRAFT ENVIRONMENTAL IMPACT
STATEMENT FOR PROPOSED PORT ARTHUR PIPELINE
TEXAS CONNECTOR PROJECT, PROJECTS DOCKETS
NO. CP17-20-000, CP17-21-000, AND CP18-7-000
11/9/18
Comments to Volume I of the draft EIS submitted by Roy Breaux follow.
Volume I

IND7-1

• ES-6 - Air Quality and Noise. Excessive dust created during pipeline installation needs to be suppressed.

• 2.4.2.2 - Due to top soil being very thick at Milepost 15, at least two feet of top soils needs to be segregated.

• 4.8.5.2 - The draft EIS states that no planned residential or commercial developments are in the Texas Connector Project. Highland Ranch Subdivision is planned at Milepost 15. The residential and commercial development is located in the Port Arthur City Limits and the Port Arthur Extra-Territorial Jurisdiction (ETJ). The Master Plan for the development was approved by the Port Arthur City Council on 6/16/08. Plans for the development are currently in progress. Location of the pipeline away from the Golden Pass Pipeline easement would result in great economic damage to the development project.

The EIA states that a 125-foot-wide construction width will be required. A 5/10/15 email from Port Arthur Pipeline representative Jason Thornton to Roy Breaux stated that a 300-foot-wide work space would be required. This workspace will completely surround a metal building located along Milepost 15. Mr. Thornton was informed that this unreasonable workspace width was not acceptable and that the pipeline needed to find a route to the west of the property.

The listed 125-foot construction width is much more than 100-foot width that was required by the Golden Pass Pipeline at Milepost 15 for its 42-inch pipeline. The construction width needs to be a maximum of 100 feet.

Pipeline installation equipment operating close to the metal building at Milepost 15 will cause ground movement resulting in settlement of the expansive soil under the building and foundation failure. Any construction equipment close to a building needs to move slow to prevent movement of the ground.

Location of the pipeline to the east of the building would cause fragmentation of the property and greatly reduce its commercial value.

Many workers will be involved in the installation of the proposed pipeline making it difficult for the landowner to know who belongs to the work crews or who is entering the properties to cause damage or steal from the landowner. The pipeline company needs to provide 24-hour security near buildings and landowner equipment.

IND7-1 See responses to comments for IND6.

IND7-1 (cont'd)

The only pipeline route acceptable to the landowner at Milepost 15 is inside the existing Golden Pass Pipeline easement or the Port Arthur Pipeline centerline being at the east edge of the Golden Pass Pipeline easement. If this route is not approved, Roy Breaux does not approve of the pipeline being located on his property at Milepost 15 due to the excessive workspace width and possible fragmentation of the property.

- 4.11.1.3 – Air Quality Impacts and Mitigation – Fugitive dust from material transfer and construction equipment travel will create excessive dust. Fugitive dust control plans must be made available to landowners so that they will know what will be done to control dust.

Douglas F. Pedigo
403 Glenchester Drive
Houston, Texas 77079
713-951-5881

November 12, 2018

Federal Energy Regulatory Commission
Washington, DC

Re: Docket Nos. CP17-20-000 et al., Texas Connector Project, Northern Pipeline, Milepost 10.9, Port Arthur Pipeline (PAPL)

Dear Sir or Madam:

I am a landowner in the direct path of the above-referenced pipeline project.

On February 14, 2017, I notified PAPL that the tract of land that PAPL would cross had been enrolled, on March 20, 2006, in the Texas Prairie Wetlands Project ("***TPWP***"), and this seasonal wetland continues to provide critical wintering habitat to large numbers of migratory waterfowl. On April 19, 2017, I was notified by PAPL that PAPL proposed to drill under my property from a pad located on a neighboring property just north of the northern property line of the TPWP tract. On that same day, I notified PAPL that this solution was not acceptable to me unless these activities occurred outside of the October – March timeframe, since 24-hour HDD activities 100-200 feet from my TPWP tract in December and January might as well be smack in the middle of the TPWP, for the effect is exactly the same. I never heard back from PAPL on this issue, nor do I see evidence that PAPL communicated this concern back to FERC.

IND8-1 In the draft Environmental Impact Statement (EIS), at page B-2-5, PAPL shows the HDD entry site just north of the northern property line of the TPWP (approximately milepost 10.9) on property owned by Bradley Burrell. At page D-1-5, PAPL notes, at milepost 10.9, that there will be a worksite for equipment, drill pipe storage, vehicle parking and laydown. PAPL also notes a large canal to the south (on the TPWP) and wetlands to the west. That is a typo – it should say east, which is natural marsh tract owned by me – but notably is silent that the TPWP seasonal wetland is to the immediate south. Moreover, nowhere does PAPL note its close proximity to the

IND8-2 Hillebrandt Unit of the J.D. Murphree Wildlife Refuge ("***JD Murphree***") just to the east of milepost 10.9.

At page 4-242, PAPL discloses that typical equipment used at HDD entry sites includes:

- drilling rig and engine-driven hydraulic power unit;
- engine-driven mud pump(s) and engine-driven generator set(s);
- mud mixing/cleaning equipment;
- mobile equipment including a crane, backhoe, front loader, forklift, and/or trucks;
- frac tanks; and
- engine-driven lights.

IND8-1 Appendix D has been updated to include TPWP lands south of MP 10.9 and the wetlands and Hillebrandt Unit of the J.D. Murphree WMA to the east.

IND8-2 Sections 4.5.2.2, 4.6.2.1, and 4.8.6.2 of the final EIS acknowledge that the Texas Connector Project would cross the J.D. Murphree WMA. We have further revised section 4.8.6.2 to clarify that the project crosses the Hillebrandt Unit between MP 10 and MP 12.

IND8-3 Remarkably, further at page 4-242, PAPL concludes "that no significant noise impacts are anticipated from construction of the proposed projects." Nothing could be further from the truth. Moreover, the noise and light pollution impacts on large numbers of migratory waterfowl on the TPWP tract during the months of October – March will be harmful and significant.

IND8-4 According to Table 4.11.2-3, PAPL forecasts HDD activities at milespost 10.9 for **44 days**. At page 4-239, PAPL notes that HDD will require activities for 24-hours at a time, and construction noise levels will be 90 DBA in close proximity to the pad site, but, notably, PAPL does not discuss light pollution and the deleterious effect of parking huge amounts of equipment just feet from a sensitive waterfowl wintering area, whether they are in working mode or not. Incredibly, at page 4-87, PAPL notes that it would attempt to avoid construction during "primary migratory bird nesting season, *March through August*" (emphasis added), but PAPL studiously avoids the much more injurious activities occurring along sensitive seasonal wetlands *October – March*.

At page 4-85, PAPL notes that the Gulf Coast provides wintering habitat to large numbers of wintering ducks and geese, and "the Gulf Coast is considered one of the most important waterfowl areas in North America." The TPWP and JD Murphree typically host significant numbers of snow geese, whitefronted geese, lesser Canada geese, coots, gadwalls, greenwinged teal and shovelers, as well as stilts, plovers, gallinules, snipe, ibis, greater snowy egrets, great blue herons, little blue herons, ospreys, redtailed hawks, Mississippi kites and occasional bald eagles. At page 4-81, PAPL notes "Noise could impact wildlife during all phases of the Texas Connector Project. Certain species rely on hearing for courtship and mating, prey location, predator detection and/or homing. These life functions could be affected by construction and operational noise." PAPL further notes that there will be 24-hour HDD activities.

I submit that PAPL does not adequately address the deleterious impact of its HDD activities at milepost 10.9 on migratory waterfowl utilizing, particularly, the TPWP, but also JD Murphree. I have no objection to the HDD activities as long as they are conducted outside of the October – March time period. PAPL should be constrained to operate outside of this important window, and that includes construction of and activities on the HDD pad, whether HDD activities are then-occurring or not.

Sincerely,

Douglas F. Pedigo

IND8-3 Section 4.6.1.2 discloses the impacts on wildlife as a result of construction of the project, including noise near compressor and meter stations. It also acknowledges that mobile wildlife such as birds would be expected to leave the right-of-way during construction and return to disturbed areas following restoration. Section 4.6.1.3 addresses effects, including noise and light, on migratory birds and PAPL's mitigation measures to reduce those impacts.

IND8-4 PAPL and FERC consulted with the FWS, the agency with regulatory authority of migratory birds (Migratory Bird Treaty Act). The FWS, the agency with statutory authority over the enforcement of the Migratory Bird Treaty Act, recommended avoiding construction from March through August and did identify additional timing restrictions for construction at this location. Further, as a result of consultations with the FWS, wintering piping plover were identified as potentially occurring in the Projects area. As discussed in section 4.7.3.1, the wintering piping plover could occur in Jefferson and Orange Counties, Texas and Cameron Parish, Louisiana, and that during the winter this species could be present along the Texas shorelines near the Projects areas. Section 4.7.3.1 also identifies the mitigation measures PALNG and PAPL would implement to reduce impacts on the species and includes measures such as restricting any temporary lighting associated with the pipeline construction to the boundaries of the pipeline corridor and associated staging areas and pointed downwards. Although these measures were identified to mitigate for impacts on the piping plover, they would also assist in reducing impacts on all migratory bird species.

Artificial lighting and potential impacts on migratory birds is discussed in section 4.6.1.3 of the final EIS. As part of its review of the project, the FWS reviewed potential impacts on migratory birds and waterfowl and recommended that PAPL avoid construction activities from March through August, which PALNG and PAPL have agreed to adopt for the Projects. In addition, FWS did not provide comments regarding effects to TPWP lands.

Also see response to comment IND8-3.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects

- - - - - - - - - - - - - - - x

Port Arthur LNG, LLC Docket Nos. CP17-20-000
PALNG Common Facilities Company, LLC
Port Arthur Pipeline, LLC

- - - - - - - - - - - - - - - x CP17-21-000
CP17-21-001
CP18-7-000

PORT ARTHUR LIQUEFACTION PROJECT
TEXAS CONNECTOR PROJECT
LOUISIANA CONNECTOR PROJECT

Coushatta Golf Course
777 Koasati Drive
Kinder, Louisiana 70648

Tuesday, October 16, 2018

The public comment meeting, pursuant to notice, convened at 4:00 p.m.

PUBLIC COMMENTS

MR. LANGLEY: My name is Bertney Langley, B E R T N E Y. L A N G L E Y. I'm a Coushatta tribal member. I'm a former secretary-treasurer of the Coushatta tribal council. And also an elder in the tribe and my comments today will reflect some of the elders comments about this pipeline going through our homelands.

IND9-1 The first thing we would like to say is that I understand the draft assessment of the pipeline's impact does not mention our tribal history or cultural resources. This is a mistake. The assessment of the pipeline's impact is wrong because it does not mention the tribes of Louisiana, and the fact that the pipeline's construction can damage important items and places that the Coushatta Tribe left behind. So at this time I've asked my daughter to highlight our concerns as tribal elders and address them at this time.

MS. LANGLEY: My name is Eleyna Langley. E L E Y N A. L A N G L E Y. I'm an enrolled member of the Coushatta Tribe of Louisiana and am a formal tribal princess. I'm very familiar with the tribe's history, and after speaking with our tribal elders, they have some

IND9-2 concerns that need to be addressed. Any significant construction work done along our tribe's migration route has the potential to uncover archaeological material that is

IND9-1 Section 4.10 of the final EIS has been updated to include a history of the Coushatta Tribe of Louisiana and the potential artifacts that could be encountered during construction of the Louisiana Connector Project.

IND9-2 Section 4.10 of the final EIS has been updated to include tribal history and potential artifacts of the Coushatta Tribe of Louisiana that could be encountered during construction of the Louisiana Connector Project. Additionally, per agreements between PAPL and the Coushatta, PAPL has agreed to sponsor a tribal monitoring program that would hire monitors trained by the Coushatta to identify any tribal and cultural artifacts uncovered during construction.

IND9-2 (cont'd)

significant to our tribe.

We understand that the draft assessment performed by your agency regarding potential impacts of construction along our tribe's migration route fails to mention the impacts construction could have on our tribe's artifacts. This is a significant mistake that should be corrected. The assessment should mention the Coushatta Tribe of Louisiana and should acknowledge the fact that construction along the tribe's migration route has the potential to uncover tribal materials that are culturally and spiritually important to our tribe. That's it.

>>

IND9-3

MR. WIMBERLEY: Chester Wimberley, W I M B E R L E Y. I would like to appeal to you to reroute the proposed pipeline right-of-way. If you remain with the proposed right-of-way you would be destroying virgin woodland, which we have very little of left in our whole area. It cannot be replaced because you cannot plant any trees on a pipeline right-of-way. You will also destroy wildlife habitat which we have built up a herd, a nice herd of deer and squirrels. We had no squirrels 40 years ago. We trapped some and put them in there. Fifty years ago when they came out with the old age pension, all those old -- and they cleaned them up. But anyway, we have squirrels, rabbits, raccoons, and a large variety of birds.

IND9-3 See responses to comment IND3-1.

IND9-3 (cont'd)

We've made trails throughout there for trout fishing, so we can get to all the areas that we hunt. My sons, I have four sons and I have ten grandchildren, we hunt this place. You know, we just enjoy it, it's right at home. I mean, quarter of a mile from my property, and it's connected property. Have been hunting this since they were kids and now I have great-grandkids coming up that will hunt; and this time we, they only allow whoever has never killed a deer to kill a deer. So we're trying to preserve the herd so we have some for our kids.

I have some -- I don't know if you want to see any of them, I have a bunch of pictures -- pictures right here. This is some pictures, this one was taken the 27th. Eighth month, 27th, there's two bucks right there. This is something, I've been there for a long time and never seen before. Walking in the woods, that's a snapping turtle that was buried down in the sticks with his neck up. I dug him up and I put him in a crawfish pond. This is a picture at night time. This is just a, there's a deer right here. Right up in there. We have cameras, you know, we put up in the trees. This is some of the woodland, the virgin woodland. This is pictures of the virgin woodland. This is all pictures of -- at one of the feeders. This is another picture -- we have some monster trees in there. Of course, the white oak, and hickory, and the whole works. This is a

IND9-3 (cont'd)

big one right here.

It's all along where they're proposing the paths. This is just another picture. You can have the pictures if you want to put them in.

FERC: Thank you.

MR. WIMBERLEY: If they move the right-of-way a few hundred feet from where they propose to pass it, they will be running in an open rice field, and it would be right along the border of the woods; but it would not disturb the operation as we could just block that off for them and once they've finished they could return it to its normal, you know, present state and you wouldn't even notice it. It wouldn't change the landscape at all. You wouldn't even notice that the pipeline is there because I have other property; Columbia runs through some of my property for the family; we farm right over it with no problems at all. As a matter of fact, I forget it's theirs sometimes.

That's kind of what I'm saying, that it could be returned to the original state and it would not change the landscape at all. And I'm willing, you know, to work with them. You know, I'm not a hard person to - I know we have to, you know, do something for the people and to keep the economy going, and I'm not against that. The only thing I'm against is it passing through those woodlands, and it's so easily, I mean, actually, it's a straight line to where they

IND9-4 (cont'd)

want; and so I guess that's more or less my, if you want, this is the end of the line. You know. I think I can show you.

[Indicating on his map] This is the end of the line right here. It would be coming across, and I think they want to go right here. There would be from here all the way to just right here. This is actually two maps at this - this is a little larger. This would be the map. The red line would be where I'd like to see it go. And it would bring it right up to where they need to go.

FERC: We will put this into the records. So that's part of the official record.

MR. WIMBERLEY: Thanks.

>>

IND9-5

MS. RODRIGUE: My name is Stephanie Rodrigue, S T E P H A N I E. R O D R I G U E. I am from Cameron, Louisiana. I live in Cameron Parish and I'm here in support of the pipeline. I can tell you from experience with Cameron LNG and we also have Cheniere LNG in our parish now and we have a couple more in process that there are certainly positives that come from partnerships with the LNG industry.

I'm the former superintendent of schools in Cameron Parish have and continue to have a good relationship

IND9-5 See response to comment IND4-1. Sections 4.6.1.2 and 4.8.6 of the final EIS discuss impacts on wildlife and hunting, respectively, from the project.

IND9-5 (cont'd)

with our current and our hopefully future LNG plants. They are providing jobs for our graduates, but they're also instilling in the graduates, a plan for what many of them would like to stay in Cameron Parish. I'm sure you don't know a lot about our parish but we don't have a lot of opportunities for employment and certainly the LNG plants do offer a variety of opportunities, as do the pipelines. I understand that pipelines, of course, the jobs are different but it's certainly something that our graduates, our Cameron Parish resident graduates, can aspire and can obtain degrees in that area to work for the pipeline.

IND9-6

As far as environmental impact, I clearly remember a few issues with both plants that had to be mitigated and as I recall, I know oyster beds for one and I think that was with Cameron LNG. And at Cheniere, relocation of some of the birds and I think, perhaps turtles. I know that our shrimping and oyster industry, our seafood industry, has continued to thrive. I do readily recall some of the oyster fishermen that I know saying that relocation, their mitigation, made their ability to, the number and quality of the oysters actually +were better once the beds were moved. That was one of the mitigations of Cameron LNG.

IND9-7

I also know that with my experience, all of them have been good stewards of our environment. We obviously

IND9-6 Comments noted. The presence of oysters and potential impacts are discussed in section 4.6.2.1 of the final EIS.

IND9-7 Comments noted. Wildlife is discussed in section 4.6.1 of the final EIS.

IND9-7 (cont'd)

live in what we consider a sportsman's paradise but it's certainly the, we have a large number of, you know, plants, birds, animals, wildlife, of every sort and we have not see any decrease in any of those populations since the LNG industry has decided to make Cameron Parish their home. So, I'm actually quite pleased that the pipeline will run through Cameron Parish and I'm here today in full support. Thank you.

>>

MS. THOMPSON: [Through Interpreter]: Good afternoon. My mother will be speaking in the Koasati language, which is the Coushatta language.

My name is Deretha Thompson. She is 62 years old. She is a Coushatta tribal member and she is also considered a tribal elder. She has lived in the Allen Parish her entire life. She has grown up in this area since she was a child and from a child she has grown into a tribal elder, and throughout that time she has seen her tribal people, she has seen and has heard where they have traveled and settled. She has seen so much in her years of living in this area. She has heard the stories from where we were originally from to the time that we've settled in the many times we've traveled from those places and then finally settling in our community.

IND9-8

So, she has seen a map of where the pipeline will

IND9-8 Section 3.4 has been updated to include a discussion of alternative routes that would avoid crossing Coushatta ancestral lands.

IND9-8 (cont'd)

run through. She is all right with the pipeline coming up but she's very unsettled about the idea that the pipeline will be on our ancestral lands or any lands that are related to the Coushatta people. So, she would like to see it moved away. She has not heard until recently about the pipeline's wanting to come through the area, and with that it doesn't feel right to her that she had not known, this was not of her knowledge; and she doesn't like the fact that she's just now finding out about it.

IND9-9

So, her concern with the pipeline that is on the map is anywhere that we've settled, anything we have left behind, anything that was buried, any resources that we may have, all of those things are at risk of being destroyed or disturbed. If you are going to continue with the pipeline, could you all move it in a different direction, away from our lands. Not on our lands, please. Thank you.

>>

MS. LAFONTNO: My name is Raynelle Lafontno. I am 37 years old. I am an enrolled Coushatta tribal member. I still have my grandmother who is still with us, and I've heard many stories of how the land used to be. And in any case, in the United States, I'm aware of all the changes that have occurred with forestry. Some of our natural resources have been depleted because of environmental

IND9-9 See response to comment IND9-2.

changes, or things in the sake of progress. I'm not against progress, but I am concerned with the pipeline if it were to come through this area how that would affect myself and my mother or our elders, but most importantly, I have four children and my childrens' land is at stake because I don't know the full effects of what may occur if something, if a pipeline were to be placed in this region. I know it will go up, but I would feel more comfortable if it was away from our homelands, our places of work, places of worship.

I'm also concerned with where the map lines, if we had settled or traveled through that area. The risk of uncovering, inadvertent discoveries, anything that was buried that was meant to stay buried, I'm not aware that you may find burials but it's not possible to know if those things would be out there. We feel like, if we bury something then it's meant to stay there. Meant to be untouched, because I know we struggle with that. I work for the heritage department and I've seen firsthand some of the effects that have occurred when people unassumingly dig and disturb burial sites or important landmarks and those sort of things.

And I know that pipelines do have archaeologist and they do have the resources to check, but, and I know that, you know, they go through the channels and the avenues to correct those, but for us it's disheartening when

IND9-10 Comments noted. The EIS discloses the impacts of operation of the project, including safety in section 4.12.10.

IND9-11 See response to comment IND9-2.

IND9-11 (cont'd)

we find that anything, anything would be uncovered and removed or disturbed. It's bad for us in a sense of spirit. I think that's all.

Can she add to what she said?

All right.

MS. THOMPSON: [Through Interpreter]: All right. My mother, Deretha Thompson, is concerned and she's thinking of her grandchildren and her future grandchildren or great-grandchildren that may come along and how that would effect them and their land.

IND9-12

Her concern -- this is Deretha Thompson again -- her concern is the water. If there were any pollution of the water, any disturbances. We still do water wells and they dig into the water table and do - sometimes it's a hand pump and sometimes it's an electric pump. But that's her concern. That that precious resource of water would be polluted. She's also worried about the soil and any contamination to the soil. Because we do have some that do garden and who rely on fresh vegetables for their sustenance. So, if any soil contamination were to arise they would lose their source of vegetation, food.

All right, that's all. Thank you.

>>

MS. DUNNEHOO: Darlene Dunnehoo. D A R L E N E.

IND9-12 Potential impacts and mitigation measures from the Louisiana Connector Project regarding groundwater and soils are discussed in sections 4.3.1.5 and 4.2.2.2 of the final EIS, respectively.

D U N N E H O O. My name is Darlene Dunnehoo, I am an enrolled member of the Coushatta Tribe of Louisiana. And I am a tribal elder. I have lived in the Coushatta community my entire life. Growing up I spent a lot of time with my tribal elders, who passed on to me my tribe's history. I know from my elders that the Coushatta people traveled and settled in different places along their route where the Port Arthur Pipeline company wants to build their pipeline.

I saw a map of the areas and saw where the pipeline is supposed to be built. Our people lived in those areas and settled in them for decades and then moved on. The draft environmental statement you published does not mention the impacts that pipeline construction could have on my tribe's sites and artifacts. The statement should be corrected to include my tribe's history and to acknowledge the fact that pipeline construction could have devastating effects on the artifacts left by my tribal ancestors. Thank you.

>>

DR. LANGLEY: My name is Linda Langley. I'm the Tribal Historic Preservation Officer for the Coushatta Tribe of Louisiana. I have a Ph.D. in anthropology plus a post doc. Thirty plus years of experience in the field of

IND9-13 See response to comment IND9-2.

IND9-14

cultural resources and historic preservation protection. The Coushatta people, the Koasati people have lived and worked, I feel very strongly, all along this area. All along the footprint of the Port Arthur Pipeline Project.

There is the highest probability for cultural resources, not only archaeological sites but traditional cultural properties along this route because we know that the Coushatta people were living and hunting and working in the Sabine River basin, the Calcasieu River basin. The Hickory Branch Lake area. The, what was considered the neutral territory between Spain and France at the time between what's now Texas and Louisiana.

The next part of the pipeline project footprint is along their present tribal lands, Bayou Blue where they've lived just there for almost 150 years. And we know to the east of that Bayou Nezpique, where there are mounds that the tribe also lived; and the former Appaloosa's territory where they enter the historic record in the time of the Spanish occupation of what's now Louisiana.

So, the tribe will be submitting written comments but I'm very concerned that the draft environmental impact statement does not currently mention any of this information, and I believe that the record should be corrected. The draft should be fixed so that some of this information is included and we can protect the tribe's

IND9-14 See response to comment IND9-2.

IND9-14 (cont'd)

cultural resources. Thank you.

>>

MS. ZEVIT: My name is Zehava Zevit. That's Z E H A V A. Last name is Z E V I T. I'm an attorney for the Coushatta Tribe of Louisiana. I am making statements on behalf of the Coushatta Tribe. I have two sets of comments on the draft EIS. The first set of comments are procedural comments.

IND9-15

The Coushatta Tribe objects to the Commission's having published the draft EIS prior to meeting with the Coushatta Tribe on a government to government basis. Generally, the Commission is obligated under federal law to meet with the Coushatta Tribe on an ongoing basis to ascertain that the tribe's interest are protected. This obligation stems from federal statutes and regulations and policies and also from the federal government's trust responsibility towards Indian tribes. Some of these obligations are codified in tribal law. For example, at 18CFR Section 2.1C.

In the NEPA regulations, in the NHPA regulations, and also in federal case law, from the various federal circuits. The Commission's obligation to consult with the Coushatta government on a government to government basis is separate and apart from the Commission's obligations under procedural regulations. Here the project's potential

IND9-15 Comments noted. Also see response to comment IND9-2.

IND9-15 (cont'd)

negative impact on the Coushatta tribe's cultural, historic, and religious interests are required to be addressed in the draft EIS and the final EIS prepared for this project. The Commission has long known that the project could negatively impact Coushatta's cultural resources. In June 2017, FERC staff met with members of the Coushatta government at Coushatta. At that meeting the tribe noted that it had concerns relating to cultural resources. A year later, in June 2018, the tribe requested a government to government meeting with the Commission. The tribe's request for the meeting expressly stated that one of the meetings goals was to discuss the project's potential negative impacts on tribal cultural resources an on the tribe's cultural, historic, and religious interests. That meeting was scheduled for mid-October, thus, when it published the draft EIS in September, the Commission had known for more than a year that the tribe had concerns relating to the project's impacts on cultural resources. The Commission also knew that the tribe wanted to meet on a government to government basis to discuss these concerns. And the Commission knew that a meeting had been set for October 16th to discuss these issues. On September 7th after learning that the Commission had intended to file a draft EIS shortly, the tribe filed a letter specifically requesting that FERC, specifically requesting that FERC refrain from filing its

IND9-16 (cont'd)

draft EIS until after the previously set October 16th government to government meeting took place. Under these circumstances it was inappropriate for the Commission to finalize and issue a draft EIS without first properly consulting with the tribe regarding cultural resource issues. Publishing the draft EIS without first meeting with the tribe was inappropriate because a draft EIS when done consistently with federal law, should address a project's anticipated negative impacts on tribal cultural, historical, and religious sites, locations and artifacts. The draft EIS is required to reference these impacts so that the tribe can ascertain how the Commission views such impacts and their mitigation. And, if necessary, comment on the Commission's approach for purposes of the final EIS.

A draft that fails to address these issues and accordingly lacks one of the important elements required under the NEPA and the NHPA, is inadequate as a draft because it fails to inform tribes of the Commission's initial thoughts regarding and approaches to tribal cultural mitigation. An inadequate draft violates federal regulations. In short, the draft EIS here should not have been finalized or published until after the Commission Staff met with the Coushatta tribe on a government to government basis and incorporated information regarding Coushatta's cultural resources into the EIS.

IND9-16

This leads me to my second set of comments regarding to the substance of the draft EIS. As a consequence of the inappropriate completion and publication of the draft EIS, the draft is lacking in significant ways. The proposed project includes construction of new natural gas pipeline facilities in Saint Landry, Evangeline, at Allen, Beuregard, Calcasieu, and Cameron Parishes in Louisiana. The entire project corridor covers lands with which the Coushatta Tribe of Louisiana has a cultural, historic, and religious affiliation. The Coushatta Tribe of Louisiana's long-standing interest in the project corridor is well-documented historically. The Coushatta Tribe of Louisiana initially moved from their villages in the Tennessee River area and settled in villages in the Guntersville Basin area which is now Northern Alabama. Then moved south to join the political organization that became known as the Cree Confederacy. In 1797, the majority of the Coushatta people migrated from Alabama to what was then Spain's Appaloosa District.

From there the Coushatta's migrated and settled in several additional locations along the proposed project corridor. They lived in multiple villages throughout this area, occupied seasonal hunting camps, raised their children, buried their dead, and worshiped in numerous places along this route. The Coushatta Tribe has identified

IND9-16 See response to comment IND9-2.

IND9-16 (cont'd)

archaeological sites and traditional cultural properties throughout the affected areas. The Coushatta people arrived at their current location in and around the present day town of Elton, Louisiana, in 1880.

The United States Government has recognized and acknowledged the Coushatta Tribe's migrations which create a historic nexus to the lands at issue in the present application. Most recently in the Congressional Record, specifically at 164 congressional record S4502. Published on June 27th, 2018. In a statement Cassidy and Senator Kennedy in which the Senators acknowledged the Coushatta Tribe's history and its migration from Alabama to Texas and back to Louisiana along what is the current project's footprint. The federal government's acknowledgment and recognition of Coushatta migrations is centuries long.

Given the proximity of the applicant's proposed project to significant known tribal locations, project construction could potentially harm archaeological and or culturally, historically, and religiously significant sites and artifacts. Such negative impacts would be irreversibly devastating, potentially annihilating artifacts from and evidence of the tribe's past and erasing significant sites and locations.

The Draft EIS lacks any reference to the Coushatta tribe's history as I just articulated it. And

IND9-16 (cont'd)

draft, and lacks any reference to the significant nexus the Coushatta has to the land at issue in the present application. The draft EIS also lacks any reference to the project's potential negative impacts on cultural resources found along the project corridor. Accordingly, the draft EIS also does not discuss or require any mitigation matters to address these negative impacts. The draft EIS is thus flawed and should be corrected. The Coushatta tribe will be submitting written comments to more fully detail the project's potential negative effects on tribal cultural resources and to suggest that the applicant engage tribal cultural monitoring, run by the Coushatta tribes in means of mitigating such potential negative impacts.

>>

MR. FEAR: Jay Fear; J a y F e a r. I'm with the Mitigration Group. And I have a meeting with you guys tomorrow, to do some mitigation business. So I'm here; just thought I'd throw in some positive comments while I'm here.

IND9-17

We're in support of the project; we very much see the economic benefit to our community and to the larger nation as a whole, and we are in support of developing the natural gas infrastructure. Clean energy. And we are just proud to host you guys, and we feel like Southwest Louisiana and Southeast Texas is the tip of the spear as far as for

IND9-17 See response to comment IND4-1.

IND9-17 (cont'd)

the LNG business; and we want to do everything we can to help support you and ensure the successful completion of this project.

[6:10 p.m.] [Pause]

[Whereupon at 6:30 p.m., the verbal comment session concluded.]

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding: Port Arthur LNG, LLC

Docket No.: CP17-20-000

Place: Kinder, Louisiana

Date: Tuesday, October 16, 2018

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Dan Hawkins

Official Reporter

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects

- - - - - - - - - - - - - - - x

Port Arthur LNG, LLC Docket Nos. CP17-20-000
PALNG Common Facilities Company, LLC
Port Arthur Pipeline, LLC

- - - - - - - - - - - - - - - x CP17-21-000
CP17-21-001
CP18-7-000

PORT ARTHUR LIQUEFACTION PROJECT
TEXAS CONNECTOR PROJECT
LOUISIANA CONNECTOR PROJECT

Hampton Inn & Suites
7660 Memorial Boulevard
Port Arthur, Texas 77642

Wednesday, October 17, 2018

The public comment meeting, pursuant to notice, convened at 4:00 p.m.

20181123-4001 FERC PDF (Unofficial) 11/23/2018

PUBLIC COMMENTS

MR. HAYES: Good afternoon. My name is Jeff Hayes. J E F F. H A Y E S. We appreciate this opportunity to talk about this vital project to our economy, the state economy, national, and even international. As you all know, natural gas is, I guess, the cleanest renewable fuel and I think with this plant, with the mitigation that they will do to build this plant, is that this will actually be good for the environment here and it will certainly be good for the environment wherever this natural gas is sold. because it will probably take the place of coal to make electricity.

As I understand it this multi-billion dollar project will have 3,500 construction jobs at its peak and 200 permanent jobs and that's very important to this community. It will also be very important to the movement of highway 87, south of the Intercoastal Canal because it will make it a safer, a better road. Today it's, you've gone down to Sabine Pass, south of the Intercoastal Canal, you almost feel like you're in the Sabine, nature's waterway.

So, I think those things and Sempra, I don't have to tell you all, is a good corporate citizen in California. They are now, they are the largest provider of electricity and gas in California and also the largest provider of electricity in Texas. And I think you can check on them,

IND10-1 See response to comments IND4-1 and IND4-2.

IND10-1 (cont'd)

they have a good corporate record. So, with a good company trying to do this much. This is important to this economy and the nation's economy and I think it will be good for the environment. Thank you very much.

JUDGE BRANICK: My name is Jeff. J E F F. Branick. B R A N I C K. I'm the County Judge of Jefferson County. I'm here to speak wholeheartedly in favor of the grant of permitting to Port Arthur LNG for their proposed liquefaction facility and the associated pipeline. I have an eight year history, longer than that, dealing with Sempra and Port Arthur LNG. They are a very responsible

IND10-2

operator, a good corporate citizen. We are excited about the number of jobs that this project is going to involve and the economic benefits that will push through our economy.

This liquefaction facility will help to right America's trade imbalance with other countries. We are already net an export port, having reached that milestone in October of 2017; we're the number one exporter of crude, the number one exporter of LNG through Cheniere Energy, and the addition of Golden Pass and Port Arthur LNG will add several hundred ships to our waterway, and make us the largest port in the country. We're currently the third largest port in section of the Gulf Intercoastal Waterway. Jefferson County it's the busiest for maritime commerce in the United States.

IND10-2 See response to comment IND4-1.

IND10-2 (cont'd)

So, we're excited about this project. We're excited about their corporate citizenship and the benefits that they're going to add to our economy, and I would mention that the citizens of Jefferson County have the most favorable rating of industry and cooperation with industry of any county in the country. So, our citizens are also highly excited about the project and we look forward to an expeditious grant of their permitting. Thank you.

MR. MCCOY: I am Bill McCoy. I'm the President and CEO of the Greater Port Arthur Chamber of Commerce. I am here to speak in favor of the Port Arthur LNG liquefication project known to us forever as Sempra. I, for the reasons that have been stated, first of all, our county is very proud of our industry because through citizen involvement and industry involvement, Jefferson County is one of the very few attainment counties, maybe in the country, I know in the state of Texas. We meet all emission standards as required by the government. The Port Arthur LNG is very community involved. They're very cognizant of the environment.

IND10-3

Where they're building will be a reconstruction of a wetlands which is important also, and the protection of our coast against storms, marshes, and grasses. The estuaries slow down storm surge. As part of our protection, we do have a seawall in Port Arthur that protects us. As

IND10-3 Section 4.4.2.1 discusses the beneficial reuse of dredge material on the J.D. Murphree WMA.

IND10-4 the movement of highway 7 inland will also raise that highway. Right now it is the only escape route for Sabine Pass during a hurricane and high tides, even in the recent high tides caused by the hurricane in Florida, it had water over the road in places so that's very important to us. Of

IND10-5 course, the 8 billion dollar construction costs, the 4,000 construction jobs, the 120 to 200 permanent jobs are important in an area which continually has high, a higher rate of unemployment than the surrounding areas.

Our schools, our colleges, some of our companies like ABC, our EDC are all in the process of having programs to train our high school students, our young people, to go into these thousands of construction jobs that are being generated by not only Port Arthur liquid natural gas, but Golden Pass in the future. Cheniere currently, plus the turnarounds of our major corporations and expansion of those Motiva, Valero, we're looking at somewhere around 15 to 20,000 needed jobs in the next five to ten years, and this is a very large part of that project. And any time we can get a company to come into our city and meet all the emission standards to help us with the rebuilding of our marshes and our wetlands. Protecting us from storm surge, providing jobs, taxes, we're very much in favor of it.

The Greater Port Arthur Chamber of Commerce board of directors and their 600 members wholeheartedly endorse

IND10-4 See response to comment IND4-2.

IND10-5 See response to comment IND4-1.

the completion of this project and the issuing of any permits necessary to get it underway immediately. Thank you.

MR. WOODS: I am Travis Woods with TNL Solutions, LLC. I'm the President of Gulf Coast Industrial Contractors Group in Lake Charles, Louisiana, and I'm the Chairman of the board of the Port Arthur Industrial Contractors Group here in Port Arthur. Between the two groups I represent about 300 industrial contractors, and we're excited about this project coming to town. It has so much economic impact with contractors going to work, with Mom and Pop gas stations, with folks that, the hotels and the local economy. We feel like this project will be a big plus to the local area. And as you well know, there's $220 billion breaking loose between here and Lake Charles and Cameron, Louisiana. And we're so excited about this Sempra project coming to town and being a part of this. And I thank you all very much for your time.

MR. BUSS: Russel, is Russel with one l. R U S S E L. Buss. B U double S. I live at 2810 Las Palmas, that's two words, Port Arthur, Texas. I had worked in the oil and gas industry for most of my career of about 40 years, and so a couple of things about the LNG. I know they're exporting. I hope that some of this LNG can stay here in the United States and fuel vessels like ship vessels

IND10-6 See response to comment IND4-1.

IND10-7 Comments noted. If the applicant proposed to produce LNG for use within the United States, they would need to seek the appropriate authority to do that.

IND10-7 (cont'd)

and things like that. I know there's a lot of people who work on that, so that's one comment I'd like to make. That some of it, a portion of that LNG used for fuel here in the United States. And I don't know if that makes any difference, but that's one thing.

IND10-8

The other is, I look at things of trying to, to make sure that energy in the process of manufacturing LNG is done efficiently and that you use some of the waste T or other things that occur with that project that could be used in the generation of electric power. All right.

IND10-9

And also other things that could possibly be recovered from the natural, from the natural gas stream like helium. And I'm working at some things, I'm working at looking at an alternative to this would be, there may be some ways that there is a good way to capture the carbon molecules from this process that might be very, might be advantageous. And I don't want to explain at this point but at some point I will alert or we will talk to that.

That's all I've got to say. And, in general, I'm in favor of this other than I think from a - one other thing, from a land use standpoint, I think that involved that last comment that I possibly have ways of utilizing some things that might be processes that could be beneficial to the United States and our area here in the State of Texas in the land associated with the footprint that this plant is

IND10-8 Comments noted.

IND10-9 Comments noted.

creating.

That's all I got to say. Thank you.

MR. LAMPSON: It's Nick Lampson, N I C K. L A M P S O N. I'm a former Member of the U.S. House of Representatives, citizen of Beaumont, Texas and lifelong resident of Jefferson County.

IND10-10 My interest in being here today is to express support for the project. I've not heard of any objection from any part of my community, and I would look forward to either answer questions over time or be supportive in the event that support becomes necessary. That's all.

[4:30 p.m.] [Pause]

[Whereupon at 6:30 p.m., the verbal comment session concluded.]

IND10-10 Comments noted.

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding: Port Arthur LNG, LLC

Docket No.: CP17-20-000

Place: Port Arthur, Texas

Date: Wednesday, October 17, 2018

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Dan Hawkins

Official Reporter

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects

- - - - - - - - - - - - - - - x
Port Arthur LNG, LLC Docket Nos. CP17-20-000
PALNG Common Facilities Company, LLC
Port Arthur Pipeline, LLC
- - - - - - - - - - - - - - - x CP17-21-000
CP17-21-001
CP18-7-000

PORT ARTHUR LIQUEFACTION PROJECT
TEXAS CONNECTOR PROJECT
LOUISIANA CONNECTOR PROJECT

Holiday Inn Lake Charles-
West Sulphur
330 Arena Road
Sulphur, Louisiana 70665

Thursday, October 18, 2018

The public comment meeting, pursuant to notice, convened at 4:00 p.m.

PUBLIC COMMENTS

[Session opened at 4 p.m.]

[Pause]

[6:30 p.m.]

MR. CHOATE: My name is Tom Choate. I own PH Machine Works, a local contractor/machine works/ fabricator/pipeline welder here in Calcasieu Parish. I wanted to show my support for this Port Arthur LNG project.

For all the reasons -- for economic reasons we support the local -- you'll find that this area is very energy friendly, and there's a tremendous opportunity to expand my business if this goes through; I'm currently at 20 employees; could probably easily put me at 50 to 75 employees. I'm not a major contractor, but I can easily keep guys busy.

Thank you guys for coming down here and giving us the chance to give a public feedback on this project.

[Whereupon, at 6:31 p.m., the public comment session concluded.]

IND11-1 See response to comment IND4-1.

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding: Port Arthur LNG, LLC

Docket No.: CP17-20-000

Place: Sulphur, Louisiana

Date: Thursday, October 18, 2018

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Dan Hawkins

Official Reporter

November 19, 2018

Port Arthur Liquefaction Project,
Texas Connector Project, and Louisiana Connector Project
Kimberly D. Bose, Secretary,
Energy Regulatory Commission (FERC)
888 First Street, NE, Room 1A
Washington, DC 20426

OEP/DG2E/Gas4
Port Arthur LNG, LLC; PALNG
Common Facilities Company, LLC; and
Port Arthur Pipeline, LLC

Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001 and CP18-7-000

Dear FERC staff:

The Golden Triangle Sierra Club Group appreciates the opportunity to comment on the Federal Energy Regulatory Commission (FERC) draft environmental impact statement (EIS) for the 1) Port Arthur Liquefaction Project proposed by Port Arthur LNG, LLC and PALNG Common Facilities Company LLC, and the 2) Texas Connector Project and Louisiana Connector Project proposed by Port Arthur Pipeline, (PAPL).

Proposed Projects: Proposed is the construction of a new liquefied natural gas export terminal in Jefferson County with approximately 165 miles of 42-inch-diameter pipeline in Jefferson and Orange Counties, Texas; and Cameron, Calcasieu, Beauregard, Allen, Evangeline, and St. Landry Parishes, Louisiana.

1) **Port Arthur Liquefaction Project** will construct:

a) two liquefaction trains, each with capacity for 6.73 million tons per year of LNG for export;
b) three LNG storage tanks, with 160,000 cubic meters of individual capacity;
c) refrigerant storage area and truck unloading facilities;
d) a condensate storage area and truck loading facilities, and
e) a materials off-loading facility and Pioneer Dock.

2) **Texas Connector Project and Louisiana Connector Project** will construct:

a) 34.2 miles of 42-inch-diameter pipeline to feed gas to the Texas Connector liquefaction facilities;
b) 130.2 miles of 42-inch-diameter pipeline to feed gas to the Louisiana Connector liquefaction facilities;
c) three compressor stations;
d) meter stations at the pipeline interconnects; and other associated utilities, systems and facilities.

Project location: The Port Arthur project is proposed to locate on the Sabine-Neches deep water ship channel within the area of other highly developed port facilities. The proposed Port Arthur Project was previously evaluated and certified by FERC in 2006 for an LNG regasification terminal that was never built. It was also previously approved by the Texas Department of Transportation for the proposed relocation of a portion of Hwy. 87.

1

GENERAL COMMENTS

IND12-1 1. **Anticipated impacts**: "Construction of the Liquefaction Project would result in impacts on about 948 acres of open land, road/transportation land, wetlands, and open water; of which about 898 acres would be permanently impacted" from the Executive Summary p. 26. Clearer definitions of the project areas of impact are needed. The JD Murphree Wildlife Management Area wetlands and the Big Hill Bayou Wildlife Management Area abut the project area; clearer definition of these areas in text and figures are needed.

The Liquefaction Project proposes to use dredged sediments from the Port Arthur Canal placed in four locations: Dredge Disposal Areas 8, 9, and 9A, and at the JD Murphree WMA.

IND12-2 a) dredged materials placed in a wetland will permanently alter the surface hydrology,

a) irrevocably affecting the chemistry of nutrient-rich marsh sediments and the ecology of the wetlands,

IND12-3 b) potentially disturbing essential migratory bird flyways associated with the Texas coast, and

IND12-4 c) insufficient scientific support for the application of dredge deposits is offered.

2. **Other Agencies Authorization Comments:** Relocation of SH87 proposed to impact 45.1 acres of wetland...which will be "allowed to revert to preconstruction conditions while forested wetlands would revegetate to palustrine and EEM or scrub-shrub wetlands."

IND12-5 a) Has TXDOT conducted a public meeting to consider all comments regarding this proposition?

IND12-6 b) Has the Army Corps of Engineers issued a 404 permit? With

- on-site and off-site mitigation strategies for public comment,
- an off-site mitigation bank (at cost to the applicant) with performance standards by the applicant to be clearly stipulated,
- the offsite mitigation bank needs to include (CWA) Aquatic Resources of National Importance.

3. **Mitigation strategies:** Permanent impacts to adjacent wetlands are anticipated under the liquefaction and pipeline connector projects. Proposed mitigation strategies are inadequate. USACE Wetlands guidelines restrict application of dredge material where "a less environmentally damaging alternative is feasible" p. 171, was an alternative investigated?

IND12-7

IND12-8 a) dredge discharge within the project is repeatedly referred to as beneficial, but here, it is cited as environmentally damaging: contradictory strategy?

The proposed destruction of several hundred acres of wetlands; whether freshwater, brackish, or saltwater – unidentified by the applicant, is NOT just the cost of doing business.

IND12-9 a) The applicant cannot 'convert' wetlands from ecological status to another simply by overlying dredge material as they state within the document.

IND12-10 b) The applicant must show more than the dredge line and broad outlines of the proposed dredge areas, but must identify the specific vegetative zones and wetlands types to receive dredged materials.

IND12-11 c) The same request is made of pipeline zones; indicate those areas of direct and indirect impact from dredge application.

IND12-12 The Sierra Club, Golden Triangle Group, has concern that no discussion regarding compensatory mitigation is offered in the document. The applicant admits that irrevocable damage will occur to wetlands, but never offers off-site alternatives to develop or protect wetlands in the coastal region to replace or conserve similar environs.

COMMENTS ENVIRONMENTAL IMPACTS

4. **Subsidence impacts:** "Subsidence occurs throughout the Gulf Coast Region as a result of sediment compaction, oil and gas extraction, and groundwater extraction." p. 171

IND12-1 The Executive Summary is intended to provide only an overview of potential impacts from the Projects. Additional information can be found throughout sections 2.0 and 4.0. Sections 4.5.2.2, 4.6.2.1, and 4.8.6.2 of the final EIS acknowledge that the Texas Connector Project would cross the J.D. Murphree WMA. We have further revised section 4.8.6.2 to clarify that the project crosses the Big Hill Unit from MP 4.5 to MP 6.0.

IND12-2 Dredge Disposal Areas 8, 9A, and 9B are USACE-approved areas that are designated for and have previously received deposition of dredge materials. These areas are managed by the SNND to maintain wetland functions following dredge material deposition. Section 4.4 of the EIS describes the existing wetlands and the impacts anticipated from placement of dredge material in the J.D. Murphree WMA.

IND12-3 See response to comment IND8-4. Section 4.6.1.3 discusses impacts on migratory birds from the Projects.

IND12-4 Any dredge disposal/beneficial reuse would be coordinated with the USACE and TPWD in accordance with their regulatory requirements. Dredge disposal materials and disposal areas would be managed and maintained by each agency responsible for its respective disposal areas (i.e., USACE or TPWD).

IND12-5 It is unknown to FERC staff if TDOT has conducted any public meetings. TDOT is not a cooperating agency; however, it did file a comment with FERC stating that PALNG must "Fulfill all applicable governmental environmental requirements necessary to begin construction" (FERC E-Library accession number 20180820-0039). Section 2.1.4.1 of the final EIS has been updated to include the TDOT's statement.

IND12-6 PALNG submitted an application and supplemental information for a CWA section 10/404 permit for the Liquefaction Project to the USACE in November 2016 and November 2017, respectively. A Public Notice was issued by the USACE on October 4, 2018, which opened a 45-day public comment period and acknowledged the purchase of wetland banking credits. The USACE is still evaluating the permit application, and final wetland mitigation requirements will be determined as a result of this evaluation.

Also see comment response to SA3-1.

IND12-7 FERC did not receive stakeholder input regarding the suitability of any other specific site for the receipt of dredge material, nor were any presented during the draft EIS comment period. The USACE reviews areas for dredge disposal associated with channel dredging, along with the landowner of the receiving site. The USACE and the TPWD did not request additional analysis of the suitability of other sites as alternatives.

Section 4.4.2.1 discloses the impacts on wetlands from construction of the LNG terminal, including the beneficial reuse of dredged material. As required by 33 CFR 332.3, PALNG is required to propose compensatory mitigation that is commensurate with the amount and type of impact resulting from construction and operation of the Liquefaction Project. PALNG developed a mitigation plan that would include credit purchases from USACE-approved mitigation banks and permittee-responsible compensatory mitigation, with the amount of compensatory mitigation determined based on the USACE's preliminary jurisdictional determinations. The plan is subject to review and approval by the USACE Galveston District as part of the section 10/404 permit process. PALNG has filed its section 404 permit application with the USACE, Galveston District, and provided a draft Compensatory Mitigation Plan. Compensatory mitigation would be initiated at the time of the first USACE-jurisdictional impact occurs and based on a timeline established by the USACE. The USACE may recommend additional conditions to address components of the Compensatory Mitigation Plan or project authorization.

IND12-8 The commenter mistakes the statement which is part of the requirement of the 404 (b) 1 guidelines that the USACE adopts in its decision-making process. As discussed in section 1.2.2.1 of the EIS, the USACE must assess the proposed project alternatives, and determine the Least Environmentally Damaging Practicable Alternative (LEDPA). The statement in and of itself does not imply damage, it guides the agency to consider an alternative (if one exists) that has lower impacts than the proposed action.

IND12-9 It is not the intent of the EIS to assume that simple placement of the dredge material would instantly create a functional wetland. Section 4.4.2.1 acknowledges that ongoing monitoring for revegetation would go on for a minimum of 5 years, and section 4.2.2.1 acknowledges that the site would be seeded in accordance with the J.D. Murphree WMA recommendations.

IND12-10 The impacts on resources as a result of this dredge placement are discussed and quantified throughout the EIS. For example, tables 4.2.1-1, 4.4.2-1, and 4.5-1, and their associated discussions, address impacts on soils, wetlands, and vegetation, respectively, on the J.D. Murphree WMA and Disposal Areas 8, 9A, and 9B from this activity.

IND12-11 We are unsure of the intent of this comment. No dredge disposal is planned from the pipeline construction, nor would any dredge material be placed on any of PAPL's proposed pipelines. The impacts from dredge placement on all resources is discussed throughout the EIS. Also see response to comment IND12-10.

IND12-12 Section 4.4.2.1 of the EIS provides an overview of the USACE's ongoing review of the project, which would include, as appropriate, compensatory mitigation in accordance with USACE regulations. The compensatory mitigation plan is still in development. We also note that offsite mitigation has been proposed by the applicant through the activities that would take place within the J.D. Murphree WMA. See also response to comments IND12-8 and SA3-1.

IND12-13 a) Site-specific environmental discussion for facilities and pipelines overlooks dredge deposition impact, and

IND12-14 b) What study has been completed to measure sediment compaction impact due to layering new sediments atop marshland soils?

"Dredge Disposal Area 8 would also receive material from the project and it is also an active federal placement area for USACE maintenance dredging (USACE, 2018)." p. 135

IND12-15 c) Project proposes to coordinate with the Texas Wildlife and Parks Department for beneficial application of dredge material to limit erosion. Will this change the wetlands hydrology?

IND12-16 d) Use of mulch and or berms will change the surface hydrology of the marshlands, has this been assessed?, and

IND12-17 e) Monitoring for revegetation success for two growing seasons although elsewhere in the document three growing seasons are cited. Is there research to cite for the sufficiency of this mitigation measure?

5. **Wetlands impacts:** "Construction of the Liquefaction Project facilities would permanently convert 725.7 acres of wetlands, including 303.7 acres of PEM wetland, 21.2 acres of EEM wetland, and 400.8 acres PSS wetland." p. 171

IND12-18 a) We agree that "to verify the assumption that the past soil sampling is still valid and site conditions have not changed….that prior to construction of the Liquefaction Project, PALNG should provide the EPA, USACE, TCEQ, and Texas RRC the soil sediment analysis conducted at the area within the ship. canal at the marine berth, construction dock, MOF and landward component of the MOF for review. PALNG should file the conclusions of the reviews with the Secretary along with documentation of its consultations with these agencies including any measures PALNG would need to adopt if the analysis discovers previously unknown contamination." P. 132

IND12-19 b) What are the indirect impacts estimated due to dredge deposition, such as vegetative species loss or habitat isolation?

IND12-20 c) Will potential fragmentation of contiguous wildlife habitats into isolated units and its affect on species survival be studied before application of the dredged sediments?

IND12-21 d) Will impacts to migratory birds and waterfowl in affected by habitat reduction be monitored?

6. **Summary of Environmental Analysis:**

"Construction of the Liquefaction Project facilities would permanently convert 725.7 acres of wetlands, including 303.7 acres of PEM wetlands, 21.2 acres of EEM wetlands, and 400.8 acres of PSS wetlands. Placement of the dredge material would result in the creation of 1,268.8 acres of coastal marsh wetlands." p. 470.

IND12-22 This is NOT the creation of new wetlands. Conversion is a net loss of wetland: The Clean Water Act, Section 404q, Aquatic Resources of National Importance (ARNI) cites mechanisms for compensatory mitigation. PAPL has not conducted due diligence as required under the CWA to find or offer alternatives to avoid or minimize damage or destruction to wetlands.

IND12-23 a) What will PALNG and PAPL in offer of replacement ratios that reflect the lost values and quality of the "converted" wetlands?

IND12-24 b) Since there is a permanent loss of wetlands shouldn't any wetlands mitigation consist of the permanent replacement of wetlands?

IND12-25 "PALNG and PAPL have developed draft compensatory mitigation plans…." p. 471. These plans could not be located in the document. They should be available for public review. The estuarine wetland within the PALNG

IND12-26 is classified as a high quality habitat for water or wading birds (see p. 4 TBS, Appendix 2.A habitat evaluations.)

a) What specific protection will be offered to protect this critical habitat?

3

IND12-13 See response to comment IND12-11.

IND12-14 To our knowledge, no study has occurred. PALNG, in accordance with its permits and landowner agreements related to dredge disposal, could be required to meet conditions related to settlement of materials, should they be a stipulation of the USACE or TPWD permit or negotiations.

IND12-15 Section 4.4.2.1 discusses the beneficial reuse of dredge material on the J.D. Murphree WMA. Section 4.4.2.1 of the EIS has been updated to indicate that the existing EEM wetlands would be altered by the placement of dredge material, which would change the hydrology. PALNG would be required to meet any permit conditions and/or landowner negotiation requirements.

IND12-16 See response to comment IND12-15.

IND12-17 PALNG would also be subject to any permitting requirements of the USACE and negotiated landowner easement requirements.

IND12-18 Comment noted.

IND12-19 The impacts of the dredge disposal on the resources are discussed throughout the EIS. Section 4.5.2.1 discusses the existing vegetation present which would be lost by placement of dredge materials.

IND12-20 Fragmentation of habitat is discussed in section 4.6.1.2. No habitat fragmentation from dredge material placement is anticipated because other surrounding areas currently or have historically served similarly as dredge disposal areas and, based on the conditions at these existing areas, the J.D. Murphree WMA and dredge disposal areas 8, 9A, and 9B are anticipated to continue functioning as wildlife habitat following placement of dredge material.

IND12-21 Section 4.6.1.3 of the EIS discloses impacts on migratory birds and the measures PALNG and PAPL have committed to in order to minimize impacts on migratory birds. No long-term monitoring of migratory birds was required by the FWS; however, PALNG and PAPL must comply with the Migratory Bird Treaty Act throughout the lifecycle of their Projects.

IND12-22 PAPL and PALNG are currently in the USACE's regulatory review process for impacts on wetlands. Should this process determine that PALNG's and PAPL's proposal does not meet the regulatory requirements, they would be required to modify their Projects accordingly or their proposed mitigations.

Section 3.3 discusses alternative liquefaction terminal sites analyzed by PALNG and the FERC. See also response to comments SA3-1 and IND12-6.

IND12-23 See response to comment SA3-1.

IND12-24 See response to comment IND12-23. PAPL and PALNG would be required to comply with 33 CFR 332.3.

IND12-25 PALNG and PAPL provided their respective USACE section 10/404 permit applications and compensatory mitigation plans in their final applications to

FERC on November 29, 2016, which have been available on FERC's eLibrary for public review (accession numbers 20161129-5254 and 20161129-5284).

IND12-26 Section 4.6.1.3 acknowledges that Round Lake is commonly used by waterfowl species. The section also discusses what measures PALNG would implement to minimize impacts on migratory birds. For example, PALNG would install erosion and sediment control devices in accordance with its Environmental Plan, and a berm exists around Round Lake that would restrict surface water flow into the lake. The FWS, the agency with statutory authority over the enforcement of the Migratory Bird Treaty Act, has recommended measures for the minimization of impacts on migratory birds, which are discussed in section 4.6.1.3.

IND12-27 In closing the environmental plan the authors point to a 2006 analysis that concluded the "impacts associated with the proposed site were acceptable because the project would be mostly located on land that has been historically used for dredge material placement…." p. 488. Historical impacts are NOT a justification for further destruction and contamination of viable wetlands.

a) Where are the 'contamination sites' within the proposed dredge placement localities?

b) Are these areas the 'degraded conditions' locations referred to in Appendix 2.E? Shouldn't they be mapped?

Due to the concerns raised in this comment letter, the Sierra Club requests that either these concerns be fully addressed or that any permit application be denied. Thank you.

Sincerely,

Ellen Buchanan, Chair
Golden Triangle Sierra Club Group
P O Box 1489
Kountze, Texas 77625
409 382-5102
ellenbuchanan@sbcglobal.net

mb/11-19-2018

4

IND12-27 Section 4.2.1.6 of the final EIS discusses soil contamination. We are not aware of any contaminated sites at any of the dredge placement areas. Appendix 2.E of Resource Report 2 contains PAPL's USACE section 10/404 permit application (FERC E-Library accession number 20161129-5254), within which PAPL refers to the J.D. Murphree WMA dredge placement site as "degraded" and goes on to explain that the area has degraded over recent years, due in part to the dredging of the Gulf Intracoastal Waterway and the Sabine-Neches Waterway, which has limited freshwater inflow and increased salt water inflow into the system. Potential for sea-level rise and the lack of new sediment also contributes to the long-term vulnerability of the area. Section 4.2.2.1 of the final EIS, which discusses soil and sediment impacts, has been updated to why the area and associated wetlands have been degraded. The term "degraded" does not appear to refer to any contamination.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Port Arthur LNG, LLC	)	**Docket Nos. CP17–20–000**
PALNG Common Facilities Company LLC	)	**CP17–21–000**
Port Arthur Pipeline, LLC	)	**CP17–21–001**
	)	**CP18-7-000**

MOTION TO INTERVENE AND COMMENTS ON DEIS OF DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission" or "FERC")[1] and the Commission's Notice issued in the above-captioned proceedings on September 28, 2018,[2] Driftwood LNG LLC ("DWLNG") and Driftwood Pipeline LLC ("DWPL" and together with DWLNG, "Driftwood") hereby move to intervene in the above-captioned proceedings with all rights of a party,[3] and provide comments to the Draft Environmental Impact Statement for the Proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project (the "Port Arthur DEIS").

In support hereof, Driftwood states as follows:

I.
COMMUNICATIONS

Driftwood requests that the following individuals be placed on the Commission's Official Service List and that communications and correspondence in this proceeding be addressed to:

---

[1] 18 C.F.R. §§ 385.212 and 385.214 (2018).

[2] Notice of Availability of the Draft Environmental Impact Statement for the Proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project, FERC Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001 & CP18-7-000 (October 9, 2018).

[3] On October 19, 2018, Driftwood filed a motion to intervene in FERC Docket No. CP18-7-000, the fourth docket associated with the Notice, and therefore is already a party to that proceeding.

Ms. Pat Outtrim
Ms. Cathy Rourke
Tellurian Inc.
1201 Louisiana Street, Suite 3100
Houston, Texas 77002
Telephone: (832) 962-4027
Email: Pat.Outtrim@tellurianinc.com
Email: Cathy.Rourke@tellurianinc.com

Ms. Lisa M. Tonery
Ms. Mariah T. Johnston
Orrick, Herrington & Sutcliffe LLP
51 West 52nd Street
New York, N.Y. 10019
Telephone: (212) 506-3710
Email: ltonery@orrick.com
Email: mjohnston@orrick.com

II.
DESCRIPTION OF INTERVENORS

DWPL and DWLNG are each a limited liability company organized under Delaware law, with a principal office located at 1201 Louisiana Street, Suite 3100, Houston, TX 77002, and are each registered to do business in the State of Louisiana. Each entity is an indirect wholly-owned subsidiary of Tellurian Inc.

DWPL does not currently own any pipeline facilities, nor is it currently engaged in any natural gas transportation operations. On March 31, 2017, DWPL filed a Section 7(c) certificate application[4] with FERC under Docket No. CP17-118-000, to construct, own, and operate a new approximately 96-mile-long interstate natural gas pipeline system ("Driftwood Pipeline") which will interconnect with up to 14 existing interstate pipelines to provide feedstock for the proposed Driftwood LNG Facility. Concurrently, DWLNG filed an application[5] with the Commission under Docket No. CP17-117-000, seeking authorization pursuant to Section 3(a) of the NGA to site, construct and operate the proposed Driftwood LNG Facility, to be located in Calcasieu Parish, Louisiana. On May 2, 2017, Port Arthur Pipeline LLC ("PAPL") filed a motion to intervene in

[4] *Driftwood LNG LLC & Driftwood Pipeline LLC*, Application for Authorizations under the Natural Gas Act, FERC Docket Nos. CP17-117-000 & CP17-117-000 (Mar. 31, 2017).

[5] *Id.*

the Driftwood proceedings stating that its proposed Port Arthur Pipeline Louisiana Connector Project ("PAPLC") will be "impacted by construction activities associated with [DWPL]."[6]

III.
MOTION TO INTERVENE

Driftwood has a general interest in Commission proceedings concerning natural gas pipelines and LNG terminals in the Gulf Coast region, insofar as any determination by the Commission in those proceedings may impact Driftwood's development efforts and plans. Moreover, Driftwood has a particular interest in this proceeding given that the PAPLC route, as proposed, will parallel that of Driftwood Pipeline in certain areas, and therefore, Driftwood Pipeline will be impacted by construction activities associated with PAPLC. Accordingly, Driftwood has a direct and substantial interest in the issues to be reviewed by the Commission in these proceedings and will be directly affected by the outcome of the proceedings. Driftwood's interests will not be represented adequately by any other party to the proceedings. Driftwood reserves its right to supplement its intervention to the extent necessary as the record develops.

IV.
COMMENTS

IND13-1

On September 14, 2018, FERC issued the Draft Environmental Impact Statement for the Driftwood LNG Facility and the Driftwood Pipeline ("Driftwood DEIS").[7] Condition 17 to the Driftwood DEIS states: "Prior to construction, DWPL shall file with the Secretary, for review and written approval by the Director of OEP, a construction coordination plan that identifies the specific construction measures (such as re-use of equipment bridges, coordinated installation of erosion control devices, or restoration commitments) that DWPL and [PAPLC] have agreed to

[6] *Driftwood LNG LLC & Driftwood Pipeline LLC*, Motion to Intervene of Port Arthur Pipeline, LLC, FERC Docket Nos. CP17-117-000 & CP17-118-000 (May 2, 2017).

[7] *Driftwood LNG LLC & Driftwood Pipeline LLC*, Draft Environmental Impact Statement for the Proposed Driftwood LNG Project, FERC Docket Nos. CP17-117-000 & CP17-118-000 (September 14, 2018).

IND13-1 In its supplemental filing with the FERC on November 30, 2018, PAPL stated it would coordinate with Driftwood along the parallel portions of the respective projects, should construction activities take place at the same time. We also note that the referenced Environmental Recommendation has been removed from the Driftwood final EIS based on both parties' agreement to coordinate.

IND13-1 (cont'd) implement in the construction of the parallel portions of their respective projects between MP 5.6 and MP 16.2 in the non-exclusive easement."("Driftwood Condition 17")[8]

On September 28, 2018, FERC issued the Port Arthur DEIS. Surprisingly, the Port Arthur DEIS did ***not*** include a parallel provision to Driftwood Condition 17. In this regard, in order for DWPL to comply with the construction coordination plan requirements as detailed in Driftwood Condition 17, the Commission must include a parallel provision in the Port Arthur final environmental impact statement ("FEIS") or, in the alternative, Condition 17 should be omitted from the Driftwood FEIS.

IND13-2 Second, should such a condition be included in both the Driftwood FEIS and Port Arthur FEIS, it should be amended to clarify that "Prior to construction" means prior to construction of the parallel portion of the respective projects. This would ensure that the coordination plan is developed in close proximity to actual construction, which should provide greater clarity as to the construction schedules of both projects (including whether both projects are moving forward) and the feasibility and practicality of sharing construction measures such as re-use of equipment bridges, coordinated installation of erosion control devices, or restoration commitments.

IND13-3 Third, the condition should be revised to require that any construction coordination plan include a cost-sharing provision to ensure that costs be fairly divided between the two companies.

[8] *Id.* at 5-21.

IND13-2 See response to comment IND13-1.

IND13-3 See response to comment IND13-1.

WHEREFORE, for the foregoing reasons, Driftwood respectfully requests that it be granted intervenor status in the above-captioned proceedings and the right to participate fully as a party, and that the Commission accept for consideration the comments provided herein.

Respectfully submitted,

/s/ Lisa M. Tonery
Lisa M. Tonery
Mariah T. Johnston
Attorneys for
Driftwood LNG LLC and
Driftwood Pipeline LLC

Dated: November 19, 2018

Certificate of Service

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at New York, N.Y. this 19th day of November, 2018.

/s/ Dionne McCallum-George
Dionne McCallum-George
Legal Secretary on behalf of
Driftwood LNG LLC &
Driftwood Pipeline LLC

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Port Arthur LNG, LLC	)	**Docket Nos. CP17-20-000**
	)	**CP17-21-000**
	)	**CP17-21-001**
		CP18-7-000

MOTION TO INTERVENE AND COMMENTS
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

On September 28, 2018, the Staff of the Federal Energy Regulatory Commission ("FERC" or "Commission") published a Draft Environmental Impact Statement ("DEIS") for the Port Arthur Liquefaction, Texas Connector and Louisiana Connector Projects (collectively, the Project), and requested comments by November 19, 2018. The Project would include a new liquefied natural gas ("LNG") export terminal in Jefferson County, Texas, approximately 165 miles of 42-inch-diameter pipeline in Texas and Louisiana, and associated compressor stations, meter stations, access roads, construction workspaces, and appurtenant facilities.

Sabine Pass LNG, L.P., Sabine Pass Liquefaction, LLC, and Cheniere Creole Trail Pipeline, L.P. submit these limited comments regarding certain aspects of the Project that could affect their FERC-jurisdictional facilities, property-rights, and construction activities for the reasons set forth below. We are requesting intervenor status as an affected stakeholder, but do not oppose the Project at this time.

I. INTERVENENTION

Pursuant to Rule 214 of the Rules of Practice and Procedure of the Commission, 18 C.F.R. § 385.214, Sabine Pass LNG, L.P., Sabine Pass Liquefaction, LLC, and Cheniere Creole

Trail Pipeline, L.P. (collectively, Movants), respectfully move for leave to intervene in the above-captioned proceedings. In support of this motion, each states:

A. COMMUNICATIONS

Communications and correspondence regarding this matter should be directed to:

Maas Hinz
Senior Manager, Operations
9243 Gulf Beach Highway
Cameron, LA 70631
(337) 569-7393
mass.hinz@cheniere.com

Janna Romaine Chesno
Senior Counsel
701 8th Street NW, Suite 810
Washington, D.C. 20001
(202) 442-3064
janna.chesno@cheniere.com

Daniel Hamburger
Senior Manager, Pipeline Operations and Gas Control
700 Milam Street, Suite 1900
Houston, TX 77002
(713) 375-5688
daniel.hamburger@cheniere.com

Karri Mahmoud
Director, Regulatory Project Development
700 Milam Street, Suite 1900
Houston, TX 77002
(713) 375-5544
karri.mahmoud@cheniere.com

B. DESCRIPTION OF MOVANTS

Sabine Pass LNG, L.P. ("SPLNG") is a limited partnership organized and existing under the laws of Delaware, with its principal place of business in Houston, Texas. Sabine Pass Liquefaction, LLC is a limited liability company organized and existing under the laws of Delaware, with its principal place of business in Houston, Texas. These two companies, (collectively referred to as "Sabine Pass") are engaged primarily in the business of operating the existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana and converting natural gas and LNG for delivery to long-term customers in domestic and international markets. The Sabine Pass LNG Terminal is owned and operated in accordance with FERC Authorizations under the

Natural Gas Act ("NGA"), Section 3.[1] On October 29, 2018, SPLNG filed an application with FERC for its proposed SPLNG Third Berth Expansion Project.[2]

Cheniere Creole Trail Pipeline, L.P. ("Creole Trail Pipeline") is a limited partnership organized and existing under the laws of Delaware, with its principal place of business in Houston, Texas. Creole Trail Pipeline is engaged primarily in the business of pipeline transportation of natural gas in interstate commerce from upstream delivery points to the Sabine Pass LNG Terminal. Creole Trail Pipeline is owned and operated in accordance with FERC Authorizations under NGA Section 7(c).[3]

Sabine Pass and Creole Trail Pipeline are indirect subsidiaries of Cheniere Energy, Inc., a Houston-based energy company primarily engaged in LNG-related businesses, including businesses responsible for owning an operating the existing Sabine Pass LNG Terminal.

C. MOTION TO INTERVENE

Movants respectfully request to intervene in this proceeding in accordance with the Commission's regulations and policy allowing interested parties to intervene during the comment period on the DEIS.

Good cause exists to grant this motion. Movants rights are implicated by Staff's statement in the DEIS that "coordination among the other projects []…" will be needed in the vicinity of the Sabine Pass LNG Terminal. DEIS at 4-341. Movants only recently became aware of the close proximity of certain Project facilities and the proposal to traverse its NGA Section 3 site upon receiving a hard copy of the DEIS in the mail. And information regarding

[1] Docket Nos. CP04-47-000, CP05-396-000, CP11-72-000, CP13-2-000, CP13-552-000.

[2] Docket No. CP19-11-000.

[3] Docket Nos. P05-357-000, CP12-351-000.

proximity to Movants' assets has been unclear in the docket to date, contributing to a lack of understanding regarding Movants' need to intervene earlier in these proceedings.[4]

Based on an initial review of the DEIS mailed to our offices, and the record as it stands today which Movants accept, Sabine Pass and Creole Trail Pipeline have substantial interests that may be directly affected by the outcome of this proceeding, which interests cannot be adequately represented by any other party. Accordingly, Movants are entitled to intervene in the above-captioned proceedings, for the reasons set forth below.

II. LIMITED COMMENTS ON THE DEIS

Movants do not oppose the Project, but are concerned about impacts that the Project may have on the construction and operation of its existing certificated pipeline facilities, operating LNG assets, and proposed expansion projects. Movants and Port Arthur have recently initiated contact, and will be engaging in discussions designed to address these concerns; however, the discussions will not be concluded by the comment deadline.

Out of an abundance of caution, Movants submit these timely comments to the FERC record for consideration while discussions between operators advance. Specifically, Movants note that the DEIS does not fully address impacts and conflicting land-uses associated with the Project, to include: (1) cumulative impacts associated with FERC approval of construction adjacent to and on the same site as construction and commissioning associated with Sabine Pass Trains 5 and 6; (2) direct impacts to safety associated with proposed construction of pipelines, metering stations and horizontal directional drill ("HDD") activities alongside the Sabine Pass LNG Terminal, Creole Trail Pipeline, and other existing infrastructure in the area; and (3)

IND14-1

IND14-2

[4] For example, the cumulative impacts table in the DEIS lists the proximity of the pipeline facilities to the Sabine Pass LNG Terminal as 3 miles away, and does not clearly note land use or safety impacts on the Terminal.

IND14-1 Section 4.13 of the final EIS has been updated to discuss the cumulative impacts associated with Sabine Pass LNG, L.P., Sabine Pass Liquefaction, LLC, Cheniere Creole Trail Pipeline, L.P. (collectively, Sabine Pass and Creole Trail) ongoing construction and PAPL's proposed project.

IND14-2 In PAPL's supplemental filing dated November 30, 2018, PAPL expressed its commitment to meet with the Cheniere Entities and to work through the matters raised by the Cheniere Entities. PAPL stated that the parties have begun discussions and were scheduled to have further discussion during the first week of December, in the expectation that these matters would be resolved to all parties' satisfaction.

On November 30, 2018, Sabine Pass and Creole Trail, and Port Arthur LNG, LLC; PALNG Common Facilities Co., LLC; and Port Arthur Pipeline, LLC filed a joint letter with FERC stating that the project teams were scheduled to meet in person in December, and that the parties were "optimistic that further refinement of the issues and a mutual resolution can be reached before Commission issuance of the Final Environmental Impact Statement for the Project. For this reason, the undersigned parties request that the Commission Staff withhold action on the Sabine Pass and Creole Trail requested condition and cumulative impacts analysis pending the outcome of these discussions among the parties."

On December 17, 2018 and January 16, 2019, the affected parties filed joint letters updating the FERC on the status of the parties' consultations, noting that as a result of a December 5, 2018 and January 10, 2019 meeting, the parties reached an initial agreement on procedures and coordination protocols to ensure that the proposed project would not impact Sabine Pass or Creole Trail construction and operation.

IND14-3 competing land-uses associated with the Project and SPLNG's Third Berth Expansion Project, which was filed with the Commission last month.

IND14-4 For example, "PAPL [Port Arthur Pipeline, LLC] estimates a total of 3,120 vehicles trips per week for the Texas Connector Project along the length of the pipeline route during the 12-month construction period. Of this number, 600 heavy truck trips and 2,520 commuter trips are anticipated. PAPL estimates a total of 626 vehicles trips per week for the Louisiana Connector Project along the length of the pipeline route during the 21-month construction period. Of this number, 91 heavy truck trips and 535 commuter trips are anticipated." DEIS at 5-19. And the DEIS concludes that "Construction activities in the Projects study area would result in temporary effects on local transportation infrastructure and vehicle traffic, including disruptions from increased transportation of construction equipment, materials, and workforce; disruptions from construction of pipeline facilities at or across existing roads; and damage to local roads caused by heavy machinery and materials." DEIS at 5-20. However, the DEIS does *not* discuss cumulative impacts associated with traffic or construction activities conducted alongside activities either already underway or proposed by Sabine Pass or Creole Trail Pipeline.

Movants communicated the concerns presented here to Project representatives prior to filing these comments, and anticipate working to resolve any concerns in the coming weeks and months. Such coordination should be required, and formalized in a mutually agreed to construction and operations management plan, as is typical in the industry, prior to construction. A few examples explaining why this is necessary may be useful.

IND14-5 1. Project proponents have proposed to use the existing Duck Blind Road that runs along the western edge of the Sabine Pass LNG Terminal to obtain access to a

IND14-3 See response to comment IND14-1.

IND14-4 Construction traffic totals described in the EIS are project-wide and would be dispersed along the right-of-way. PAPL has not disclosed the number of workers needed for pipeline construction, but they would represent a fraction of those totals. Section 4.13 of the final EIS has been updated to discuss the cumulative impacts from the project in the vicinity of Sabine Pass and Creole Trail.

See response to comment IND14-2.

IND14-5 Comment noted.

IND14-5 (cont'd) proposed meter station situated adjacent to the Terminal's secured area, and to stage construction crews and conduct HDD operations.

IND14-6 2. Construction of the meter station and associated pipeline to connect the Project to supplies in Louisiana would traverse Sabine Pass' existing property boundaries, a parcel of land that is currently permitted and used for construction laydown and workspace for the Sabine Pass Terminal (and will be used for construction laydown areas in SPLNG's Third Berth Expansion Project), and will parallel existing portions of the Creole Trail Pipeline, an operating pipeline that is required to maintain access to its facilities and avoid outages that may impact its customers.

IND14-7 3. Significant horizontal directional drilling activities are associated with the Project, including multiple drills in the vicinity of or under existing assets operated by Movants, and under an existing permitted and monitored major outfall at the Sabine Pass LNG Terminal. It is unclear based on our initial review where the HDD pipe will be welded and tested, and whether any spoil from HDD activities will be deposited on Movants' sites.

IND14-8 4. The land uses in this area are subject to numerous existing encumbrances, and Movants would like to work with the Project to address competing land-use concerns.

IND14-9 5. There is significant construction and commissioning activity already underway at the Sabine Pass LNG Terminal. The introduction of third party (Port Arthur) construction contractors on or near our operating facilities while construction is ongoing – operators that are not trained on or subject to Sabine Pass' safety and construction risk management practices – is not consistent with prudent operations.

IND14-6 PAPL would coordinate with the landowner, in this case Sabine Pass and Creole Trail, in its proposal to build its pipeline facilities under Section 7 of the Natural Gas Act.

IND14-7 Workspace for the HDDs are shown on PAPL's alignment sheets, which were filed with its final application and are available on FERC's eLibrary (accession number 20161129-5284).

IND14-8 Comment noted.

IND14-9 Comment noted.

IND14-10 Movants respectfully request that further evaluation, and communication with the Project is needed to facilitate discussions designed to:

- Ensure that Movants retain full rights to undertake, within existing property boundaries and authorizations, modifications and expansions designed to maximize the efficiency of its LNG, pipeline, and associated assets to serve growing customer demand;
- Continue reliable, efficient, and secure operation of the Sabine Pass LNG Terminal and Creole Trail Pipeline in order to comply with FERC certifications and order obligations, to include obligations to prudently operate existing facilities and take reasonable measures to ensure that customers would not suffer as a result of the Project;
- Minimize competing land-use impacts, to include establishing a process through which the parties will establish the responsibilities for operation and maintenance where the Project and Movants share site access and/or will occupy temporary or permanent workspaces going forward;
- Establish mutually agreeable protocols regarding dispute resolution to facilitate settlement of any disputes that may arise out of construction, operation, and/or maintenance activities, including emergency activities of each operator, at adjacent facilities and/or in shared rights of way.

III. RECOMMENDED CONDITION

Movants believe a satisfactory agreement addressing these concerns can be executed in a timely fashion. In order to allow communication on such matters without impacting the FERC notice of schedule in this proceeding, Movants propose that Staff add a condition to the Final Environmental Impact Statement ("FEIS") designed to facilitate timely development of information in the record. Specifically, Movants propose the following additional condition for inclusion in the FEIS for the Project:

IND14-11 ***Prior to the start of construction***, PAPL shall file with the Secretary a site-specific construction and operations plan which has been mutually agreed to between PAPL, Sabine Pass and Creole Trail Pipeline. The Director of OEP must provide review and written approval prior to authorizing Project-related activities that may affect the Sabine Pass LNG Terminal or Creole Trail Pipeline. This plan shall establish the terms and conditions under which Project-related activities and operations will be conducted. The plan must include procedures for coordination of contractor mobilization, training,

IND14-10 See response to comment IND14-2.

IND14-11 See response to comment IND14-2.

IND14-11 (cont'd) clearing, pre-construction, construction, commissioning, operation, maintenance, and dispute resolution.

Such an agreement, which will be to the mutual benefit of all operators, is necessary to ensure the Sabine Pass LNG Terminal and Creole Trail Pipeline facilities will not be adversely impacted by ongoing construction and will continue to meet its FERC obligations in a prudent manner. Should the parties fail to reach resolution in a timely fashion, Movants submit that this condition should be required in any Commission order authorizing the Project.

Movants' proposal is consistent with FERC precedent and its approach to mitigating stakeholder impacts through site-specific plans. Such an approach is appropriate here, where Movants do not oppose the Project, provided such terms can be mutually agreed to prior to construction. And notably, Movants are not seeking a condition dissimilar to those already proposed by Staff in the DEIS.[5] Such a condition is consistent with FERC Staff's recognition in the DEIS that "In general, the closer another action is to the Project[], the greater the potential for cumulative impacts."

IV. CONCLUSION

In order to facilitate timely development of information in the record for the Project relating to the cumulative and direct impacts on the Sabine Pass LNG Terminal and Creole Trail

IND14-12 Pipeline, Movants have requested copies of alignment sheets identifying all Project activities and

[5] For example, the DEIS notes that "PAPL would coordinate with landowners during construction and maintain landowner access to fields, storage areas, field access roads, structures…" And PAPL has developed site-specific construction plans for residential structures within 25 feet of its construction work areas. Staff has additionally requested that each of the affected stakeholders provide comments on PAPL's site-specific plans for their property, and required PAPL to "develop a grievance and resolution plan as part of its *Implementation Plan* that identifies how stakeholders can contact pipeline company representatives with questions, concerns, and complaints prior to, during, and after construction."

IND14-12 PAPL's alignment sheets were filed with its final application and are available on FERC's eLibrary (accession number 20161129-5284).

IND14-12 (cont'd)

assets in the vicinity of or crossing over or under the Sabine Pass LNG Terminal and Creole Trail Pipeline facilities, and look forward to working with Project representatives to resolve any concerns. To ensure timely resolution, Movants also seek a grant of full rights as parties to these proceedings, and adoption of a narrowly tailored condition in the Project FEIS designed to ensure that the Project will not interfere with Movants' existing and proposed facilities.

Respectfully submitted,

/s/ Janna Romaine Chesno

Janna Romaine Chesno
Senior Counsel
Cheniere Energy, Inc.
701 8th Street NW, Suite 810
Washington, D.C. 20001
(202) 442-3064
janna.chesno@cheniere.com

Dated: November 19, 2018

CERTIFICATE OF SERVICE

I hereby certify that I have this 19th day of November, 2018, caused to be served a copy of the forgoing upon all parties listed on the official service list compiled by the Secretary of the Federal Energy Regulatory Commission in this proceeding.

/s/ Janna Romaine Chesno

Janna Romaine Chesno
Senior Counsel
Cheniere Energy, Inc.
701 8th Street NW, Suite 810
Washington, D.C. 20001
(202) 442-3064
janna.chesno@cheniere.com

ORIGINAL

November 7, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Dear Secretary Bose:

Please find written comments submitted by the "Teamsters National Pipeline Labor Management Cooperation Trust" on the Request For Comments on the Port Arthur Liquefaction, Texas Connector and Louisiana Connector Projects **(FERC Project Docket Numbers CP17-20-000, CP17-21-000 and CP18-7-000).**

If you have any questions I can be reached at (703) 508-8690.

Sincerely,

Richard Stern, Administrator
Teamsters National Pipeline Labor
Management Cooperation Trust

Enclosures

Comments submitted to the Federal Energy Regulatory Commission on behalf of the Teamsters National Pipeline Labor Management Cooperation Trust representing over 125 contributing Union Pipeline Contractors affiliated with the Pipeline Contractors Association; the International Brotherhood of Teamsters with over 1.25 million members all who support the construction of the Port Arthur Liquefaction, Texas Connector and Louisiana Connector Projects (herein, referred to as Projects), Docket Nos. CP17-20-000, CP17-21-000 and CP18-7-000).

IND15-1 **The Teamsters and their signatory contractors are committed to building these Projects with well-trained and qualified local workers who can perform their work at a high level to help mitigate any potential environmental concerns.**

These workers have a vested interest in building the projects in an environmentally safe manner since their own families could be affected by these projects.

By utilizing union contractors to build the "Projects" it guarantees that at least 50% of the workers will be local hires.

The collective bargaining agreement between the Teamsters and Pipeline Contractors Association states:

"The words "regular employee" shall mean those who are regularly and customarily employed by the Individual Employer and because of their special knowledge and experience in pipeline construction work, are considered key men. It is anticipated that the number of regular employees shall not be more than a majority of the total number required but there shall be no limitation on the classification of such

IND15-1 Comments noted. FERC does not award work related to the construction of proposed or authorized projects, and any work related to the construction of the facilities would be at the sole discretion of the applicants. We note in section 4.9.1 that PALNG and PAPL estimate that 20 to 40 percent of their construction workforce would be hired locally.

IND15-1 (cont'd) regular employees, with the understanding that these classifications will be distributed as evenly as possible." (See Exhibit A)

Therefore, when pipelines such as these "Projects" is built using Teamster members at least half of the Teamster pipeline construction workers will be from the local community and have a greater sensitivity for the environment.

These workers have an incentive building the "Projects" environmentally safe because again they live here too.

Thus, any negative environmental impact will be lessened.

You do not get this guarantee with a nonunion pipeline contractor.

IND15-2 We have pipeline contractors who specialize in Horizontal Directional Drilling (HDD) type of work.

HDD is used for the installation of pipelines beneath rivers, highways, and other environmentally sensitive areas requiring technology and equipment that can install pipelines without any disturbance to natural habitats.

Some of our specialized signatory contractors and a more detailed explanation of the work they perform in areas of great environmental concern are included in this submission. (See Exhibit B)

IND15-3 Prior to the construction of these "Projects" we will provide Classroom training programs based on the U.S. Department Transportation's Regulations on "Compliance, Safety and Accountability" (CSA) and also Defensive Driving.

IND15-2 Comments noted. Section 2.4.3.1 of the final EIS describes the HDD crossing method.

IND15-3 See response to comment IND15-1.

IND15-4 The Teamsters CSA/Defensive Driving Instructor has been cited as a Trend Setter by the "National Safety Council" an Award he has received from them in the past. (See Exhibit C)

Under pages 6 and 7 in the collective bargaining agreement workers must have certain qualifications prior to working on pipeline projects. (See Exhibit D)

Under pages 17 and 18 of the Pipeline Agreement is the language on "Drug and Alcohol Testing" to ensure a drug free work environment and "Training/DOT Rules" to maintain high quality work standards and qualifications. (See Exhibit E)

We believe that if these "Projects" are being constructed with our trained and highly skilled local union workers and specialized union contractors the "Projects" will be built in a safe and environmentally friendly manner and in compliance with all federal and state environmental regulations.

IND15-5 Furthermore, these "Projects" by using Teamster members will provide them with high wages and health insurance and pension benefits. (See Exhibit F)

This translates into more taxes paid to the Federal Government and state and local taxes where applicable.

IND15-6 I have supplied information on our support of Teamster Military Veterans many from Louisiana and Texas who will be working on these projects, if done union. (See Exhibit G)

FERC can show their support for these Veterans by approving the projects and having the construction of the "Projects" awarded to one of our signatory pipeline contractors.

IND15-4 See response to comment IND15-1.

IND15-5 See response to comment IND4-1.

IND15-6 See response to comment IND15-1.

IND15-6 (cont'd)

Also, there is a brochure on our training program at the end of this submission for your review.

In closing, we support the building of these "Projects" based upon this written submission and its supporting exhibits showing the use of our union contractors and trained Teamster work force most residing in Louisiana and Texas where the project takes place will lessen any environmental concerns.

EXHIBIT A

additional pre-job conference will be required if hours of work or work conditions are changed.

No representative of any individual Employer and no representative of the Union or any of its local unions shall demand at the pre-job conference or at any other time during the continuance of the job any term or condition not covered by this Agreement. A copy of the report made of each pre-job conference shall be furnished to the Pipe Line Contractors Association and to the International Brotherhood of Teamsters, and no agreement made at any pre-job conference which adds to or modifies in any way the terms and conditions of this Agreement shall be binding on any individual Employer or the Union, or any of its local unions, unless approved and ratified by the PLCA and the International Brotherhood of Teamsters.

In the event that the Union and the Employer are unable to mutually agree upon layoff procedure at the pre-job conference, the matter will be referred to the Director, Construction Division, International Brotherhood of Teamsters, and the Managing Director, PLCA, for decision along previously established guidelines.

(E) If any individual Employer pays any wages in excess of the wages negotiated in this Agreement in the form of extra money, extra hours, extra travel or stand-by-time, or in the form of a bonus by any subterfuge, and if the PLCA and the International Brotherhood of Teamsters shall jointly determine that such bonus is for the purpose of pirating men from other individual Employers, or results in conditions injurious to the pipeline industry, then such individual Employer shall be required to pay the same extra compensation to all employees classified as Group 1 or Group 2 in this Agreement, and a proportionate additional compensation to all employees classified as Group 3 in this Agreement, and such requirement shall continue until that particular job is completed. It is understood and agreed, however, that any profit-sharing, retirement, or pension plan which an individual Employer may have in effect which has not been set up for that particular job shall not be considered a bonus.

(F) Upon request of the local union having jurisdiction of the job, and upon presentation of proper authorization forms executed by the individual employees, the individual Employer agrees to deduct from the wages of such individual employees Union initiation fees and dues and shall pay over to such local unions the amount so deducted.

(G) The Union agrees to send a copy of this Agreement to each and every one of its locals having jurisdiction over any area in which Employer becomes obligated to construct a pipe line, and agrees that the terms of this Agreement shall be recognized by such local, so that industrial peace will not be disturbed and so that the Employees may perform Employer's work efficiently and continuously. The Employer agrees as well to furnish its supervisory personnel copies of this Agreement so that they may be familiar with the terms.

(H) Employer shall have the right to hire the first driver, the second employee hired shall be the steward. Employer shall have the right to employ, direct and bring into the job men who are regular employees in Employer's work and shall have the right to keep such men in his employ on all work throughout the territory covered by this Agreement.

IND15-7 (I) The words "regular employee" shall mean those who are regularly and customarily employed by the individual Employer and because of their special knowledge and experience in

5

IND15-7 See response to comment IND15-1.

IND15-7 (cont'd)

pipeline construction work, are considered key men. It is anticipated that the number of regular employees shall not be more than a majority of the total number required but there shall be no limitation on the classification of such regular employees, with the understanding that these classifications will be distributed as evenly as possible.

(J) It is understood and agreed that the above limitations shall not apply to the pipeline stringing operations.

(K) The hiring of men in addition to the Employer's regular employees, either at the start of the job or later, shall be conducted in the following manner:

1. In the event a valid non-discriminatory exclusive referral procedure has been established by collective bargaining between a local of the Union and an association of highway and heavy contractors in the area in which the job is to be done, Union shall notify the Association from time to time as to the existence of such exclusive referral procedures and Employer agrees to utilize such referral procedures upon the following conditions:

a. Nothing in this Agreement shall affect the Employer's inherent right to determine the competence and qualifications of applicants for employment or of his employees and his right to reject or discharge accordingly.

b. The selection of applicants for referral to jobs shall be based on a non-discriminatory basis and shall not be based on or in any way affected by union membership, by-laws, regulations, constitutional provisions, or any other aspect or obligation of union membership, policy or requirement.

c. Workmen referred under Article II to the contractor's job who are not able to perform the job to which they are referred because of their own lack of qualifications, or for some other reason which is the workman's own responsibility, shall not be paid show-up time.

d. Qualified applicants required by Employer at the start of the job must be referred by a local referral office within 48 hours of the receipt of Employer's request; those required by Employer after a job has started must be referred by a local referral office within 24 hours of the receipt of Employer's request. If the local referral office fails to comply with this condition, Employer may secure qualified applicants from any other source. Qualified applicants under this section must have the following:

(i) Proper federal and state licenses;

(ii) Proper OQ credentials where necessary;

(iii) Pipeline or general construction work experience relevant to pipeline work or completion of a certified pipeline training course operated or approved by the Teamsters Pipeline Training Fund. The Teamsters and PLCA also agree they will jointly review the training program on a 6-month basis.

(iv) Compliance with company Employee and safety policy standards. These

6

[redacted] EXHIBIT B

SEDD Horizontal Directional Drilling Process : Southeast Directional Drilling 7/28/16, 4:47 PM

CALL US TODAY: 1 520-423-2131

WHAT WE DO COMPANY SAFETY NEWS & EVENTS RESOURCES CONTACT
WHO WE ARE

IND15-8

HORIZONTAL DIRECTIONAL DRILLING

SINCE 1971, AFTER MARTIN CHERRINGTON SUCCESSFULLY DRILLED THE FIRST DIRECTIONAL RIVER CROSSING, THE INDUSTRY HAS BEEN MOVING FORWARD.

Directional Drilling has seemed to be the most preferred method for pipeline construction as of late. The reason being that Directional Drilling can be installed without any disturbance to natural habitats

Directional Drilling has the least environmental impact of any method of construction. By Directional Drilling you are able to be a great deal of depth below the obstacle, providing minimal maintenance cost and up keeping maximum protection. In some cases, Directional Drilling can cost a lot less then most other construction methods and procedures.

STEP 1 - PILOT HOLE

The pilot hole is the beginning of the Directional Drill crossing. The Pilot hole is achieved either by excavation by jetting or by a down hole motor. Depending on the condition of the soil the pilot is drilled along a pre-determined alignment in which the path is selected by traditional methods.

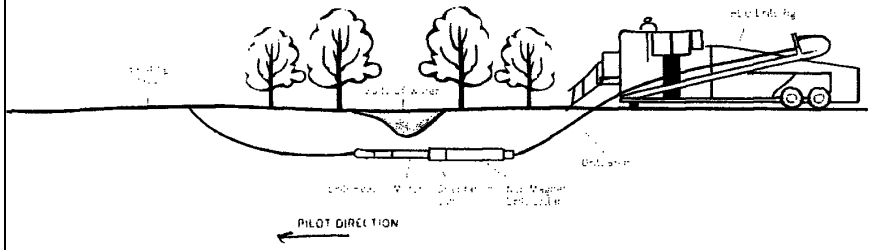
The typical pilot hole on most large rigs is 9 7/8 but can vary depending on the soil conditions and rig size. Drilling fluid is pumped through the drill pipe to the drill head at which time it is jetted through or pumped through a drill motor. The end of the Drill Pipe is to core the pilot hole. The drill fluid lubricates the drill stem and carries out the cutting to the surface.

http://www.southeastdrilling.com/drilling/ Page 1 of 6

IND15-8 See response to comment IND15-2.

IND15-8 (cont'd)

The drill fluid is then recycled and re-injected into the drill stem. The pilot process can take several days, depending on the condition of the soil and may require changing of the drill stem or drill head



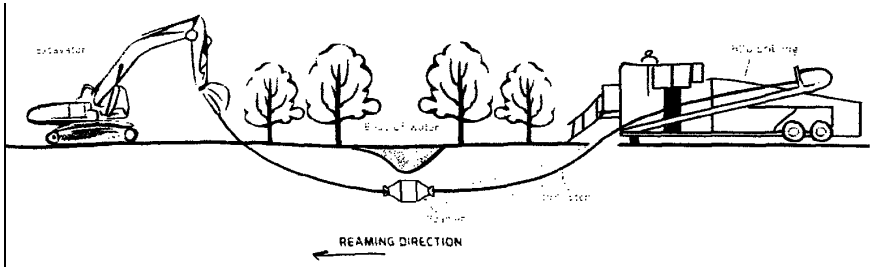
STEP 2 - REAMING PROCESS

Once the pilot hole has been completed the 2nd step takes place with a reamer, or hole opener. The hole openers come in different shapes and sizes and vary depending on the soil conditions and density of the soil. typically a fly cutter is used in good ground conditions.

The reaming pass is done in several steps depending on the size of the hole, (example: 42" finish hole would be 3 to 5 different ream passes 14", 20", 34" 42"). The reamer is attached to the drill string and is rotated and pushed or pulled while rotating and drill fluid is pumped to the reamer through the drill pipe. The excavated soil is suspended in the drill fluid and then brought to the surface and recycled.

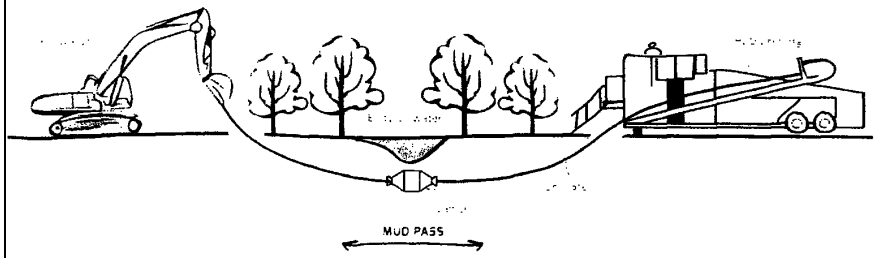
When the reamer is attached to the Drill string there will always be a drill pipe on both sides of the reamer allowing for the drill string to be in the hole at all times. The reaming process can take a significant amount of time depending on the condition of the soil.

IND15-8
(cont'd)



STEP 3 – MUD PASS

After the desired hole has been achieved and the reamer has passed through it completely, a mud pass or packer reamer will be done to assure that the hole is clean of all excavated material and that the drill fluid has filled the hole completely, to allow for a smooth lubricated pull back of the pipe, avoiding friction of the pull section.



STEP 4 – PULLBACK PROCESS

The final step now is when the pipe is pulled into the reamed hole. A weld cap is installed on the pipe where a swivel is placed attaching the drill string, thus not allowing any rotation of the pipeline. Depending on the size of the pipe an artificial buoyancy measure might be taken. This is to keep the pipeline as close to neutral

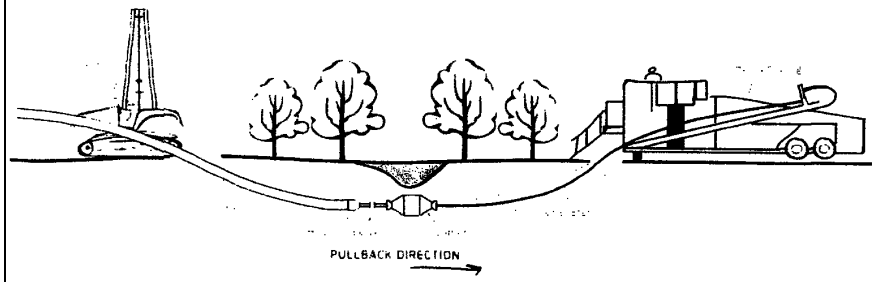
IND15-8 (cont'd)

buoyancy. If no measures are taken several problems may occur (example: coating damage from pipe floating in drill fluid and causing excess friction causing more pull). Most typically buoyancy control is done with pumping water into the pipeline through P.V.C. pipe and checking the gallons pumped.

At completion of directional drill, demobilization and clean-up takes place.

We will be happy to provide you a drilling quote / proposal on any HDD project. Feel free to contact our sales team at any time at 520-423-2131 to request a quote. Here is the following information needed to properly provide a quote:

- Name of Crossing
- Length
- Size
- Location
- How Many Crossings
- Start Date
- Bid Due Date
- Are You the Owner/Engineer/General Contractor?
- Do You Have Any Plans or Specs?
- Do You Have Core Samples?



IND15-8
(cont'd)

Southeast has the capability to perform directional drilling work in a variety of different territories, such as environmentally sensitive areas, city streets, cross country areas, major river crossings, roadways, railroads, and remote locations. We have experience in all types of soils, including solid rock and fractured formations and we are also capable of drilling in lengths in excess of 8,400 ft, ranging from 2 inches to 56 inches in diameter pipe. Aside from being able to fulfill any possible drilling need, we are committed to maintaining an on time schedule, all while satisfying landowners, environmental monitors, and public agencies.

We look forward to discussing, and bidding, any potential horizontal directional drilling projects your company may require.

PLH Group is a leading full service construction and specialty contractor that serves the electric power line, pipeline, oilfield electrical services and industrial markets. Formed in 2009, PLH Group has assembled a North American team of top quality companies that deliver services covering the broad range of needs of its customers from pipeline construction and related directional drilling, right-of-way clearing/restoration and engineering to electric transmission, distribution and substation construction including specialized foundations and helicopter airborn operations.

PLH GROUP

SEDD Presented Plaque of Appreciation

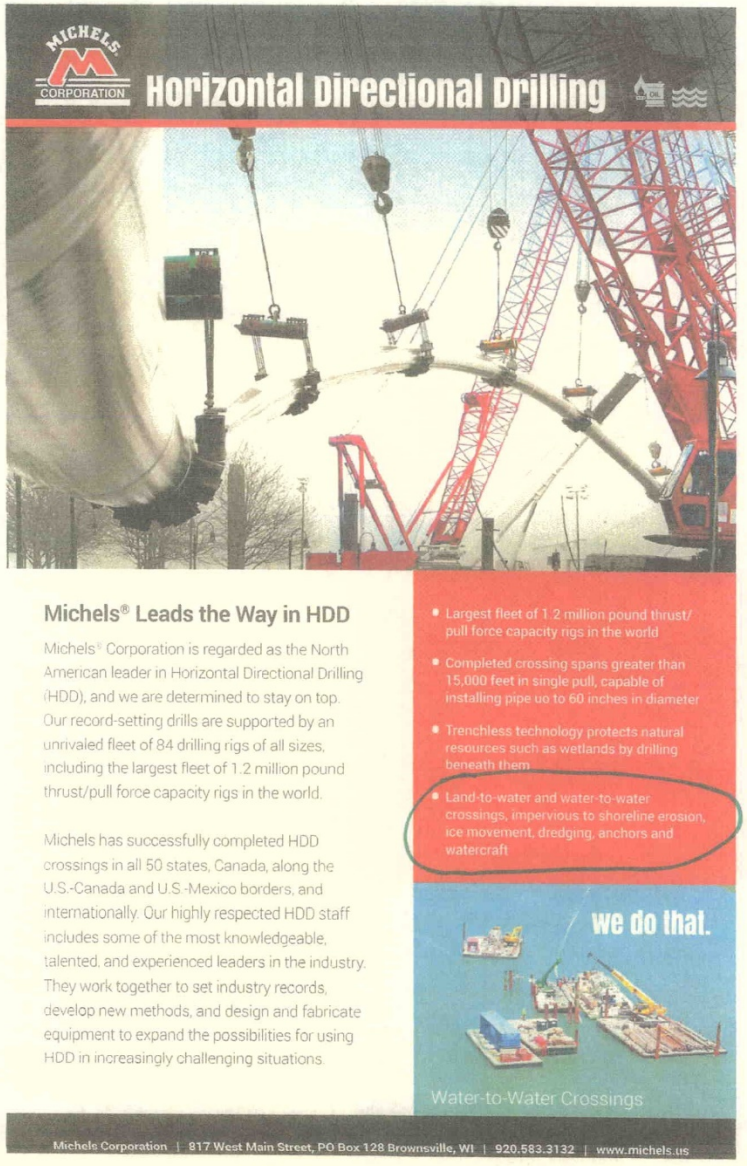
December 3, 2015

28

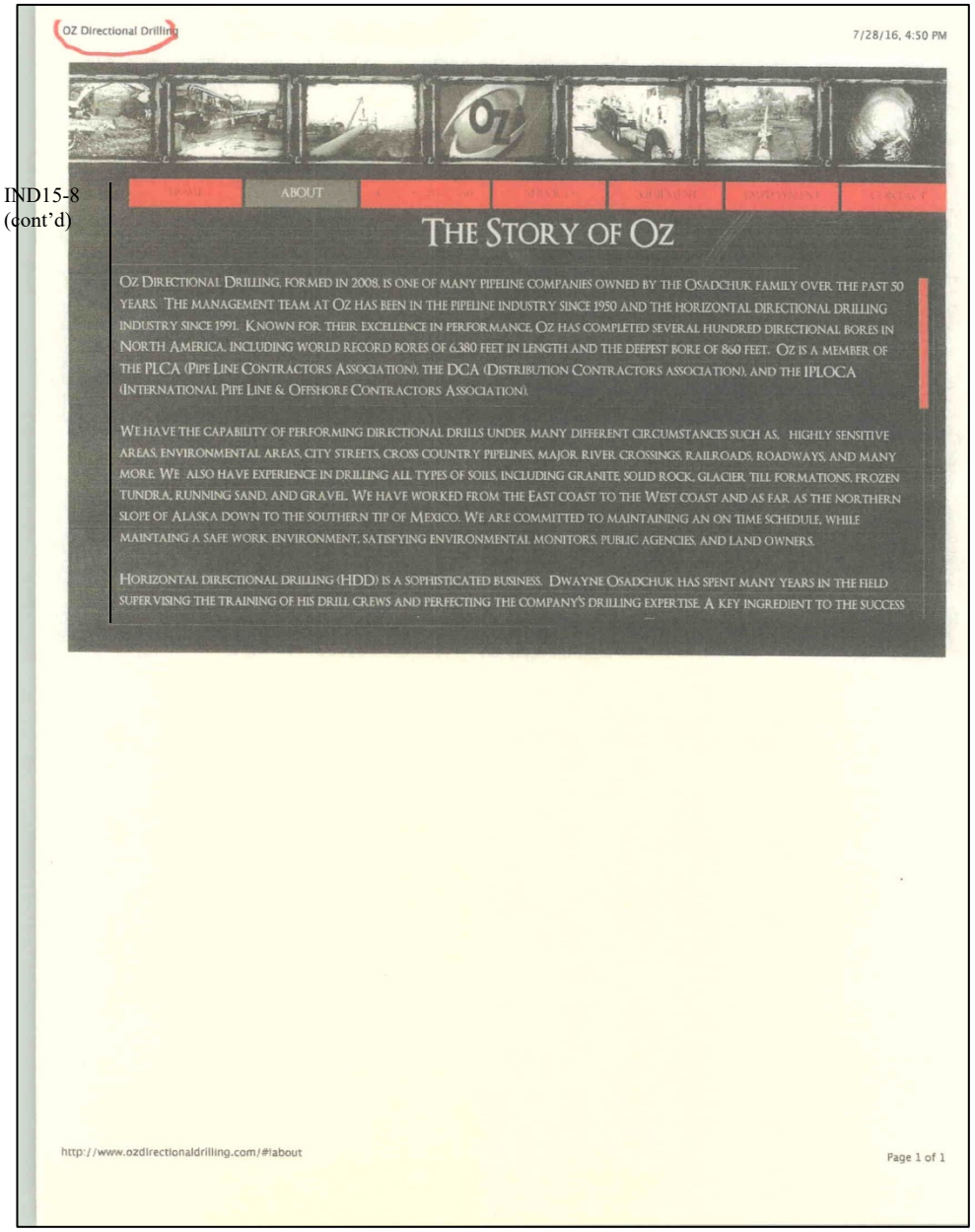
When our President Todd Barton was approached by Aaron Goranson, father of a boy scout from Troop 993 in Maricopa Arizona, a small community just north of our Casa Grande facilty asking if we could donate a 53' box trailer that was slotted for auction later that month, he said "make it happen". Todd as well as rest of the executive team at SEDD, believes our company should always act as a stewards of our community and of those communities that we work in. "We encourage our employees to promote values, good conduct and respect, in all aspects of our ...

Updated Pictures!!!!

IND15-8
(cont'd)



IND15-8
(cont'd)



OZ Directional Drilling 7/28/16, 4:50 PM

ABOUT

THE STORY OF OZ

OZ DIRECTIONAL DRILLING, FORMED IN 2008, IS ONE OF MANY PIPELINE COMPANIES OWNED BY THE OSADCHUK FAMILY OVER THE PAST 50 YEARS. THE MANAGEMENT TEAM AT OZ HAS BEEN IN THE PIPELINE INDUSTRY SINCE 1950 AND THE HORIZONTAL DIRECTIONAL DRILLING INDUSTRY SINCE 1991. KNOWN FOR THEIR EXCELLENCE IN PERFORMANCE, OZ HAS COMPLETED SEVERAL HUNDRED DIRECTIONAL BORES IN NORTH AMERICA, INCLUDING WORLD RECORD BORES OF 6,380 FEET IN LENGTH AND THE DEEPEST BORE OF 860 FEET. OZ IS A MEMBER OF THE PLCA (PIPE LINE CONTRACTORS ASSOCIATION), THE DCA (DISTRIBUTION CONTRACTORS ASSOCIATION), AND THE IPLOCA (INTERNATIONAL PIPE LINE & OFFSHORE CONTRACTORS ASSOCIATION).

WE HAVE THE CAPABILITY OF PERFORMING DIRECTIONAL DRILLS UNDER MANY DIFFERENT CIRCUMSTANCES SUCH AS, HIGHLY SENSITIVE AREAS, ENVIRONMENTAL AREAS, CITY STREETS, CROSS COUNTRY PIPELINES, MAJOR RIVER CROSSINGS, RAILROADS, ROADWAYS, AND MANY MORE. WE ALSO HAVE EXPERIENCE IN DRILLING ALL TYPES OF SOILS, INCLUDING GRANITE, SOLID ROCK, GLACIER TILL FORMATIONS, FROZEN TUNDRA, RUNNING SAND, AND GRAVEL. WE HAVE WORKED FROM THE EAST COAST TO THE WEST COAST AND AS FAR AS THE NORTHERN SLOPE OF ALASKA DOWN TO THE SOUTHERN TIP OF MEXICO. WE ARE COMMITTED TO MAINTAINING AN ON TIME SCHEDULE, WHILE MAINTAING A SAFE WORK ENVIRONMENT, SATISFYING ENVIRONMENTAL MONITORS, PUBLIC AGENCIES, AND LAND OWNERS.

HORIZONTAL DIRECTIONAL DRILLING (HDD) IS A SOPHISTICATED BUSINESS. DWAYNE OSADCHUK HAS SPENT MANY YEARS IN THE FIELD SUPERVISING THE TRAINING OF HIS DRILL CREWS AND PERFECTING THE COMPANY'S DRILLING EXPERTISE. A KEY INGREDIENT TO THE SUCCESS

http://www.ozdirectionaldrilling.com/#!about Page 1 of 1

IND15-8
(cont'd)

Horizontal Directional Drilling

Horizontal Directional Drilling (HDD) is a trenchless method of installing pipelines and conduits in the areas where traditional open cut excavations are not feasible and/or not desired for environmental and/or constructibility reasons. It is commonly used for the installation of pipelines beneath rivers, highways, railroads and other environmentally sensitive areas, or areas where the topography or site conditions along a proposed alignment conflicts with conventional cut and cover installation practices. During the HDD process, a pilot hole is first drilled along a predetermined path. The pilot hole is then enlarged in single or multiple steps (reaming passes) to accommodate the pullback of the carrier pipe into the enlarged hole.

We are presently operating HDD rigs capable of completing projects both large and small with pipe sizes up to 60 inches in diameter and HDD lengths over 15,000 ft.

- Large Rigs: large rigs with pullback of 180K to 1.7M. 4 to 60-in. in diameter up to 15,000 ft. Soft soil to hard rock with ten to twelve people per crew.
- Small Rigs: small rigs with pullback 100K or less. Vermeer D100x140 with small utility and midstream focus. Soft soil to hard rock with four to six people per crew. Our Vermeer rigs are also used for completion of road boring.

Large Rig


Small Rig

IND15-8
(cont'd)

We go to great lengths for our customers!

Specializing in trenchless technology, Laney Directional Drilling Co. ("Laney") is a leading global Horizontal Directional Drilling ("HDD") company. Laney is the only U.S. HDD company providing integrated engineering, design and HDD construction services. In August 2014, the Company celebrated 25 years in business. During those years, the Company performed work in twelve countries on five continents, but has focused primarily in the U.S. during the past five years. Laney specializes in servicing pipeline operating companies and pipeline contractors with long, complex, challenging, or small scale HDD requirements. No project is too big or too small. Located in Spring, Texas, Laney directionally drills for the purpose of installing infrastructure such as oil and gas pipelines, telecommunications conduits, water lines, sewer lines and environmental remediation casings.

Today, Laney Directional Drilling is one of the leading large HDD contractors in North America. To date with its custom made large rigs Laney has installed more than 2625 HDDs and 975 miles of HDD crossings. Laney's fleet also includes Vermeer D100x140 rigs. Laney, known for its innovation and being a trenchless technology pioneer, is also one of a few North American companies experienced with Direct Pipe® trenchless technology. Direct Pipe® is a single pass process that uses a steerable tunnel boring machine-cutting head. The technology tunnels and pushes the pipe into place at the same time, filling the void as it progresses. This technology greatly reduces the likelihood of hydraulic fracture and inadvertent returns and is ideal for crossing under levees and environmentally sensitive areas.

Laney's evolution over the years included the creation of a HDD engineering and design team, as well as a world class sales and marketing group dedicated to supporting the customer. The Gulf Coast remains a strength for the business; however, as demand has shifted so did their geographic expansion to areas with challenging subsurface conditions such as the Northeast US/Marcellus area. Laney operates nationally and at times worked beyond the North American borders, depending on clients' needs.

Laney has installed more than:

2625 HDDs 975 miles of HDD

EXHIBIT C

IND15-9 National Safety Council announces local Defensive Driving Course Training Center **IL Teamsters/Employers Apprenticeship & Trng Fund Afftl/Joint Council 25** is an award winner of the following:

Trend Setter NSC PTD

On October 15, 2016 during the National Safety Council's Congress and Exposition in Anaheim, California IL Teamsters/Employers Apprenticeship & Trng Fund Afftl/Joint Councils 25&65 of Joliet, IL will receive honors for their 2015 Defensive Driving Course training.

The National Safety Council's Defensive Driving Course, the first name in life saving driver safety courses, began in 1964. With over 8,000 instructors worldwide, the Defensive Driving Courses have graduated over 70,000,000 drivers.

James A. Solomon, Subject Matter Expert for NSC Defensive Driving Courses, will personally congratulate representatives from IL Teamsters/Employers Apprenticeship & Trng Fund Afftl/Joint Councils 25&65 at the Council's Annual DDC Training Center & Instructor of the Year Awards Celebration for their hard work in making the highways safer.

Press Release

IND15-9 See response to comment IND15-1.

June 8, 2016

Michael Borjas
IL Teamsters/Employers Apprenticeship & Trng Fund Affil/Joint Councils 25
990 NE Frontage Rd
Ste 4
Joliet, IL 60431

Customer Number: 699382

Dear Michael Borjas,

IND15-10

We are extremely pleased to announce that your organization has been chosen as a DDC Award recipient for your outstanding training efforts in 2015. The award(s) being presented to your organization are:

Award	Curriculum
Trend Setter	NSC PTD

National Safety Council would like to recognize your training center at the 2016 NSC Congress and Exposition in Anaheim, CA. We invite you to be our guest at the Annual DDC Training Center & Instructor of the Year Awards Celebration to be held on Saturday evening, October 15th, 2016.

To help us prepare for the awards ceremony, please pre-register your organization for the event online at www.nsc.org/2016DDCawards. We will need your organization's customer number as well as the proper spelling of your organization's name and how it should appear on the award (s). If you are unable to attend, please be sure to go online to pre-register, indicating you cannot attend, and providing shipping information for the award(s). **We appreciate your prompt response no later than end of day, June 24, 2016.**

In the meantime, if you have any questions, please give our office a call at 800-621-7619 ext. 52041. A formal invitation will be sent in July with final registration instructions.

To help your organization broadcast its success to your community; we have enclosed a press release and an awards definition page. Also enclosed is a FAQ sheet that will help to answer any remaining questions you may have regarding the awards celebration. We congratulate you and look forward to seeing you in Anaheim!

Sincerely,

Subject Matter Expert for NSC Defensive Driving Courses
Enclosure

IND15-10 See response to comment IND15-1.

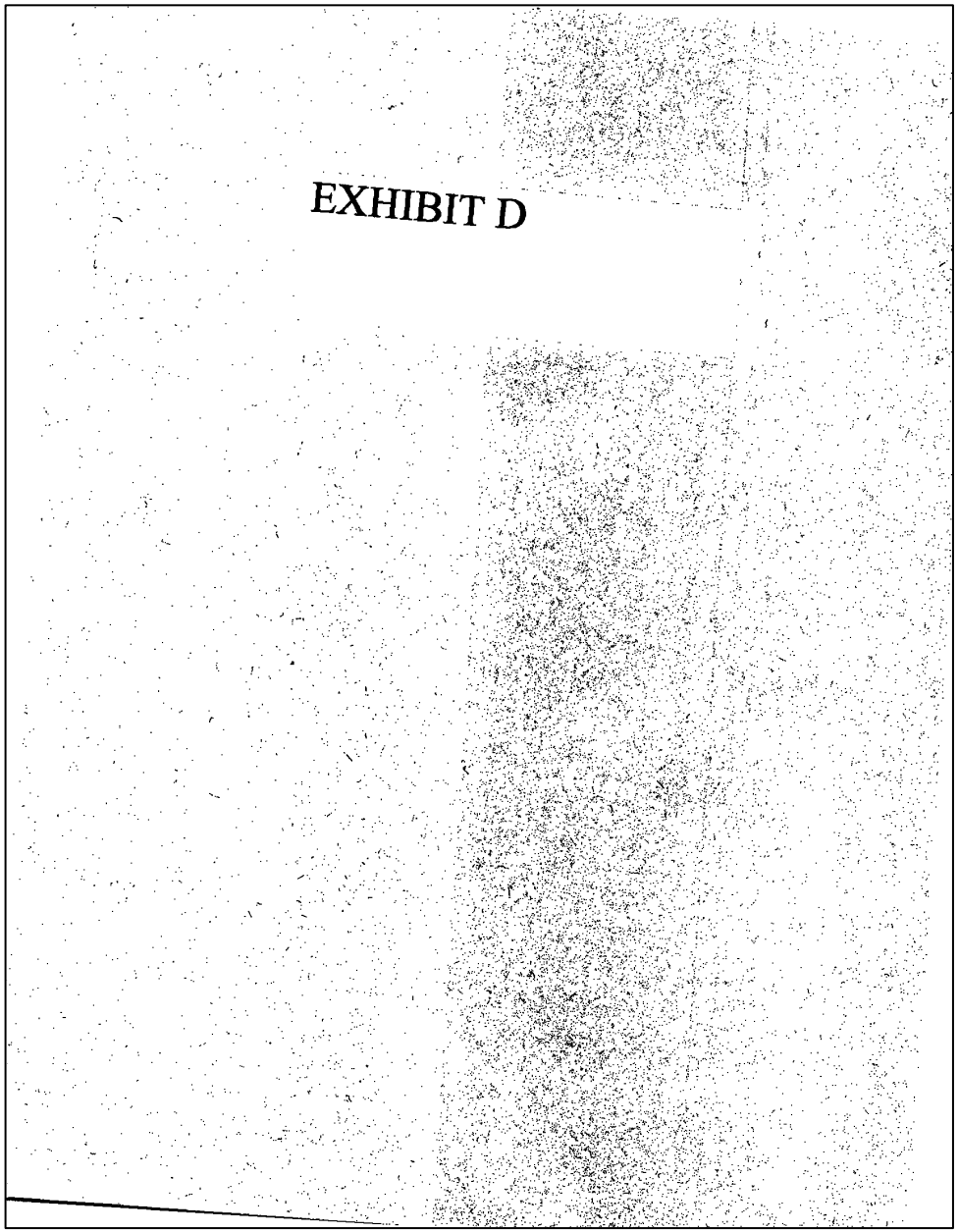


EXHIBIT D

IND15-11 pipeline construction work, are considered key men. It is anticipated that the number of regular employees shall not be more than a majority of the total number required but there shall be no limitation on the classification of such regular employees, with the understanding that these classifications will be distributed as evenly as possible.

(J) It is understood and agreed that the above limitations shall not apply to the pipeline stringing operations.

(K) The hiring of men in addition to the Employer's regular employees, either at the start of the job or later, shall be conducted in the following manner:

1. In the event a valid non-discriminatory exclusive referral procedure has been established by collective bargaining between a local of the Union and an association of highway and heavy contractors in the area in which the job is to be done, Union shall notify the Association from time to time as to the existence of such exclusive referral procedures and Employer agrees to utilize such referral procedures upon the following conditions:

a. Nothing in this Agreement shall affect the Employer's inherent right to determine the competence and qualifications of applicants for employment or of his employees and his right to reject or discharge accordingly.

b. The selection of applicants for referral to jobs shall be based on a non-discriminatory basis and shall not be based on or in any way affected by union membership, by-laws, regulations, constitutional provisions, or any other aspect or obligation of union membership, policy or requirement.

c. Workmen referred under Article II to the contractor's job who are not able to perform the job to which they are referred because of their own lack of qualifications, or for some other reason which is the workman's own responsibility, shall not be paid show-up time.

d. Qualified applicants required by Employer at the start of the job must be referred by a local referral office within 48 hours of the receipt of Employer's request; those required by Employer after a job has started must be referred by a local referral office within 24 hours of the receipt of Employer's request. If the local referral office fails to comply with this condition, Employer may secure qualified applicants from any other source. Qualified applicants under this section must have the following:

(i) Proper federal and state licenses;

(ii) Proper OQ credentials where necessary;

(iii) Pipeline or general construction work experience relevant to pipeline work or completion of a certified pipeline training course operated or approved by the Teamsters Pipeline Training Fund. The Teamsters and PLCA also agree they will jointly review the training program on a 6-month basis.

(iv) Compliance with company Employee and safety policy standards. These

6

IND15-11 See response to comment IND15-1.

IND15-11
(cont'd)

policy standards will be provided by each Employer at the pre-job conference.

2. In the event there is no valid exclusive referral procedure established in the area where the particular job is to be done or the proper conditions set out hereinabove have not been met by the referral procedure which has been established, Employer will at the pre-job conference notify Union, as one of the sources from which men are to be recruited, as to the number of men who will be needed in addition to his Regular Employees. Employer shall give preference in employment to men in the area who have had previous pipeline construction experience. It is understood that Employer may also recruit men from other sources, will hire all employees at the job site in a non-discriminatory manner, and shall have the absolute right to determine the competence and qualifications of applicants and employees and to reject and discharge accordingly.

3. Once the original crew has been employed, Employer shall have the right to keep such crew on all the work throughout the territory covered by the particular job for which the pre-job conference was held, regardless of local union jurisdiction.

(L) The Union shall post in places where notices to employees and applicants for employment are customarily posted all provisions relating to the functioning of this hiring arrangement, including the provisions set forth. The Employer shall similarly post in places where notices to employees and applicants for employment are customarily posted all provisions relating to the functioning and operation of the hiring arrangements, including these provisions.

(M) The business representative of the Union shall have access to any job at any time, subject to the owner safety and security rules and Federal and State regulations, and shall notify the field office of his presence on the job prior to entering the job site. The representatives of the Union shall not schedule meetings which could in any way hinder ongoing production.

III.
STEWARDS

As soon as any work starts, including unloading, racking, or stringing of pipe or clearing of right-of-way, the Union may select any Employee of the Employer who shall act as Steward for the Union. It is understood that the Employer will not be required to employ a Steward for any subcontract work prior to the start of operations by the Employer. The Steward shall be paid for the number of hours he actually works each day or for the number of hours for which the job is set up on a daily basis, whichever is greater, except that on those days when no work is performed, then the Reporting Time Pay provisions of Article VIII will apply. The steward shall perform his work for Employer the same as any other worker, and shall be entitled to receive the rate of pay in Article V(C) for the area in which the job is located. Stewards shall not be discharged without forty-eight hours' previous notice to Union. Although it is agreed that there will be no non-working stewards, it is also recognized by the parties that the steward has an important function in maintaining harmony and cooperation on the job, and therefore his assignment should not be such to prevent his normal function as a steward. Therefore, the parties agree that his job assignment will be a subject to be decided at the pre-job conference. The Employer shall provide the steward a weekly record of all Teamster employees listing date of

7

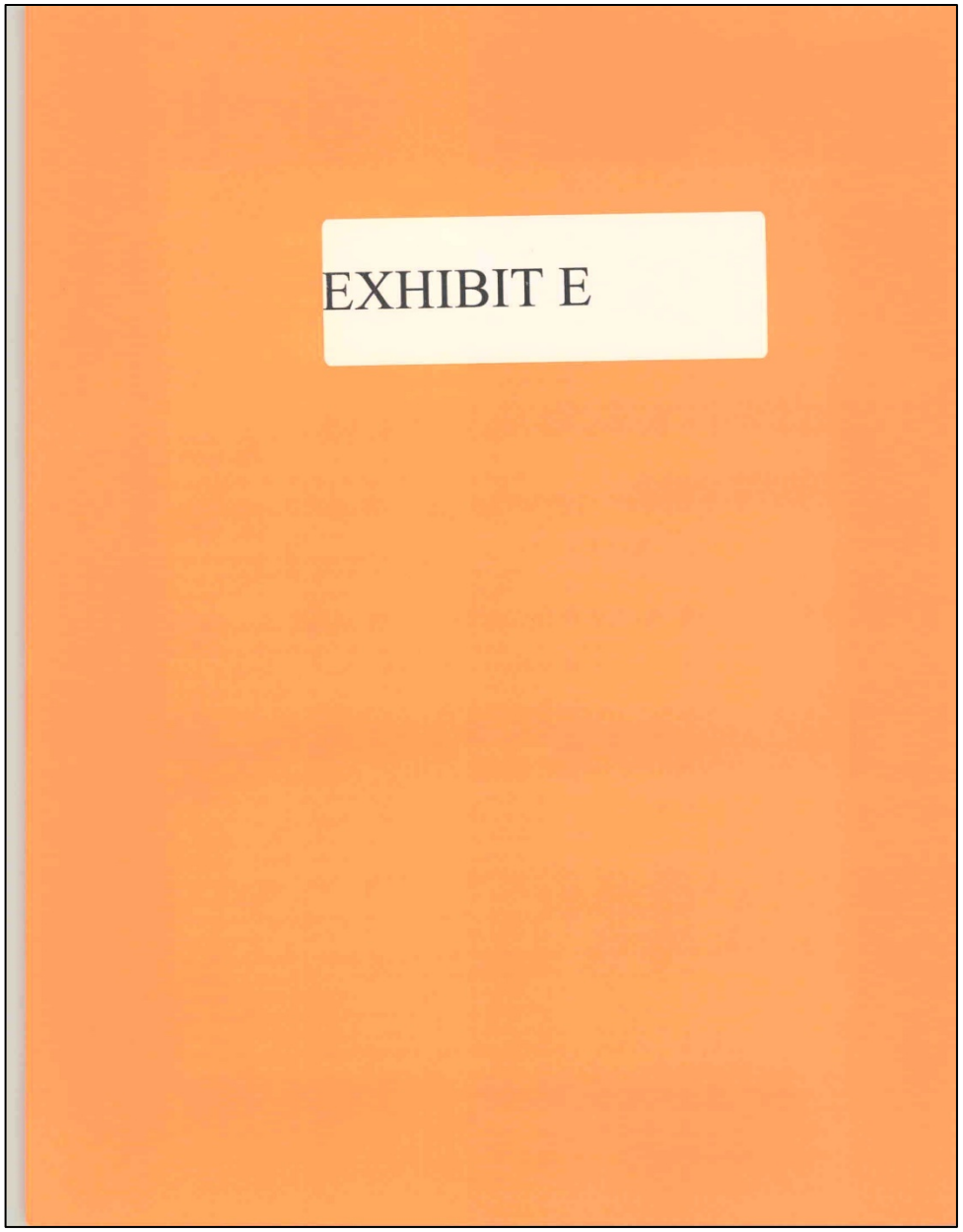


EXHIBIT E

IND15-12 procedure set out above, the Association will immediately contact the Federal Mediation and Conciliation Service to obtain a list of three (3) individuals with as much experience and knowledge as possible in the pipeline construction industry. A copy of this list will be furnished to the Union, and thereafter, the PLCA and Union shall attempt to mutually agree upon one (1) of the individuals listed. If no agreement can be reached, the Union and the PLCA will each strike one (1) name from the list and the remaining individual will be the Arbitrator.

3. A statement of the facts shall be presented to the Arbitrator within forty-eight (48) hours after his selection either:

a. Jointly, if the Union and PLCA mutually agree; or

b. Separately, if no mutual agreement, and the Association will submit a written statement setting out the Employer's position and the Union will submit a written statement setting out the Union's position.

4. All information submitted to the Arbitrator will be in writing. No personal appearances or oral testimony will be allowed. The Arbitrator will then issue, within five (5) days, a decision based upon the evidence submitted.

(G) The Union and the Employer involved shall bear the expense of their appointed Arbitrators. In the event an Arbitrator from the Federal Mediation and Conciliation Service is selected, then the Union and the Employer shall be jointly responsible for that person's expenses.

(H) In the event Employer fails or refuses to comply with the grievance procedure set out hereinabove, the provisions of Article IX shall not be binding upon Union. If Union fails or refuses to comply with the grievance procedure set out hereinabove, the Employer shall have the right to declare this entire Agreement null and void.

XII.
SPECIAL CONDITIONS

In order to be more competitive in certain areas of the country, the PLCA and the Union may mutually agree to put into effect special wages and conditions for specific areas or projects. These special wages and conditions will apply to the areas or projects involved for the period of time to be established by the principal parties.

XIII.
DRUG AND ALCOHOL TESTING

(A) A Substance Abuse Policy has been negotiated by the PLCA and the International Brotherhood of Teamsters and is attached hereto and made a part of this Agreement as Schedule "C".

(B) If an Employee fails a pre-employment drug or alcohol test and is so notified by 9:00 a.m. on the fifth business day following the day of taking the test, then the Employee's wage rate shall not be the hourly wage rate set forth in this Agreement. Instead, the Employee shall be paid wages at a flat rate of $90 per day worked (but in no event less than the applicable

17

IND15-12 See response to comment IND15-1.

IND15-12 (cont'd)

minimum wage) for all days worked prior to receiving such notification (not to exceed five (5) days) and for which no wages have yet been paid as required by this Agreement. If subsequent testing reveals a false positive, the Employee will be entitled to full compensation for the period he worked and reinstatement. The results of all tests will be kept confidential between the Employee, the Employer and the Union.

XIV.
TRAINING/DOT RULES

(A) Training – The Trustees of the Teamsters National Pipeline Training Fund will develop a National Pipeline Training Program for Teamsters to train in operating pipeline equipment in areas of high pipeline construction.

(B) DOT Rules – The Trustees of the Teamsters National Pipeline Training Fund will develop a DOT training program to teach Teamsters the necessary skills to comply with DOT driver requirements. Part of this program will be to develop a general pre-dispatch drug and alcohol testing program to be applied to all drivers seeking work under the National Pipe Line Agreement.

(C) Contributions shall be made to the Teamsters National Pipe Line Training Fund and Labor-Management Cooperation Trust in accordance with Schedule "A" and the provisions above. The National Pipe Line Training Fund will establish proficiency training standards to be used in a National Pipeline Training Course, which will include specific Operator Qualification training. Regional training courses also will be set up throughout the country as necessary and will be subject to the proficiency training standards developed by the Fund. A list of Teamsters who have successfully completed the course will be made available to signatory contractors on request. Funds contributed to local training funds for pipeline work covered under the National Pipe Line Agreement should be used by the local funds to provide pipeline and OQ training. Local pipeline training will be monitored by the Teamsters National Pipe Line Training Fund.

XV.
HISTORICAL PRECEDENT

Since the inception of the National Pipe Line Agreements, which cover all main line, cross-country pipeline construction, only four (4) Unions have been recognized, and all work relating to such pipeline construction has been performed by these four (4) Unions. They are: The International Brotherhood of Teamsters, The United Association of Journeyman and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada, The International Union of Operating Engineers, and the Laborers' International Union of North America. The recognition of only these four (4) Unions on such work is hereby reaffirmed.

XVI.
INDIAN PREFERENCE IN EMPLOYMENT

The hiring procedures contained in this Agreement shall not apply in the "territorial jurisdiction" of any Indian Nation which has adopted an Indian Preference in Employment law, provided that those persons covered by the law and seeking covered employment under this

18

EXHIBIT F

IND15-13

NATIONAL PIPELINE AGREEMENT 2014-2017

SOUTHERN RATES (Hourly)

Covers: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee and Texas

	5/30/16-6/4/17	6/5/17-6/4/18	6/4/18-6/3/19	6/4/19-5/31/20
GROUP 1*	$29.18	$30.09	$31.09	$32.06
GROUP 2	$26.09	$26.91	$27.81	$28.68
GROUP 3	$24.78	$25.56	$26.42	$27.25
H&W	$6.90	$7.17	$7.40	$7.70
PENSION	$3.00	$3.25	$3.50	$3.75
TRAINING	$ .20	$.20	$ .20	$ .20
LMCT	$ .20	$.20	$ .20	$ .20

PREMIUMS (National)

Steward	+ $2.25
Stringing Truck	+ $2.25
Mechanic	+ $3.00
Lowboy	+ $2.25
Fuel Truck	+ $2.25
Haz-Mat	+ $1.00

*Log/Grapple Truck Rate:

Updated 9/12/18

IND15-13 See response to comment IND4-1.

[redacted] EXHIBIT G

IND15-14

TEAMSTERS ASSISTANCE PROGRAM MILITARY

International Brotherhood of Teamsters Veteran Registration

Name: _____ Phone: _____

Address: _____ Cell: _____

_____ E-mail: _____

City State Zip

Are you a veteran? Yes / No What dates did you serve? _____

In which branch of the military did you serve? (Circle one)

Army Marines Navy Coast Guard Air Force

How long have you been a Teamster? _____

What Joint Council are you affiliated with? _____ What is your local? _____

Who is your current employer? _____

Are you currently receiving benefits for service-related disabilities? Yes / No

Do you require assistance to pursue or file a disability claim? Yes / No

Do you want to receive updates on disability benefits or presumptive disease issues? Yes / No

Claims and disability filings will be done through certified claims representatives. All information regarding your filing(s) is confidential between you and a certified claims representative.

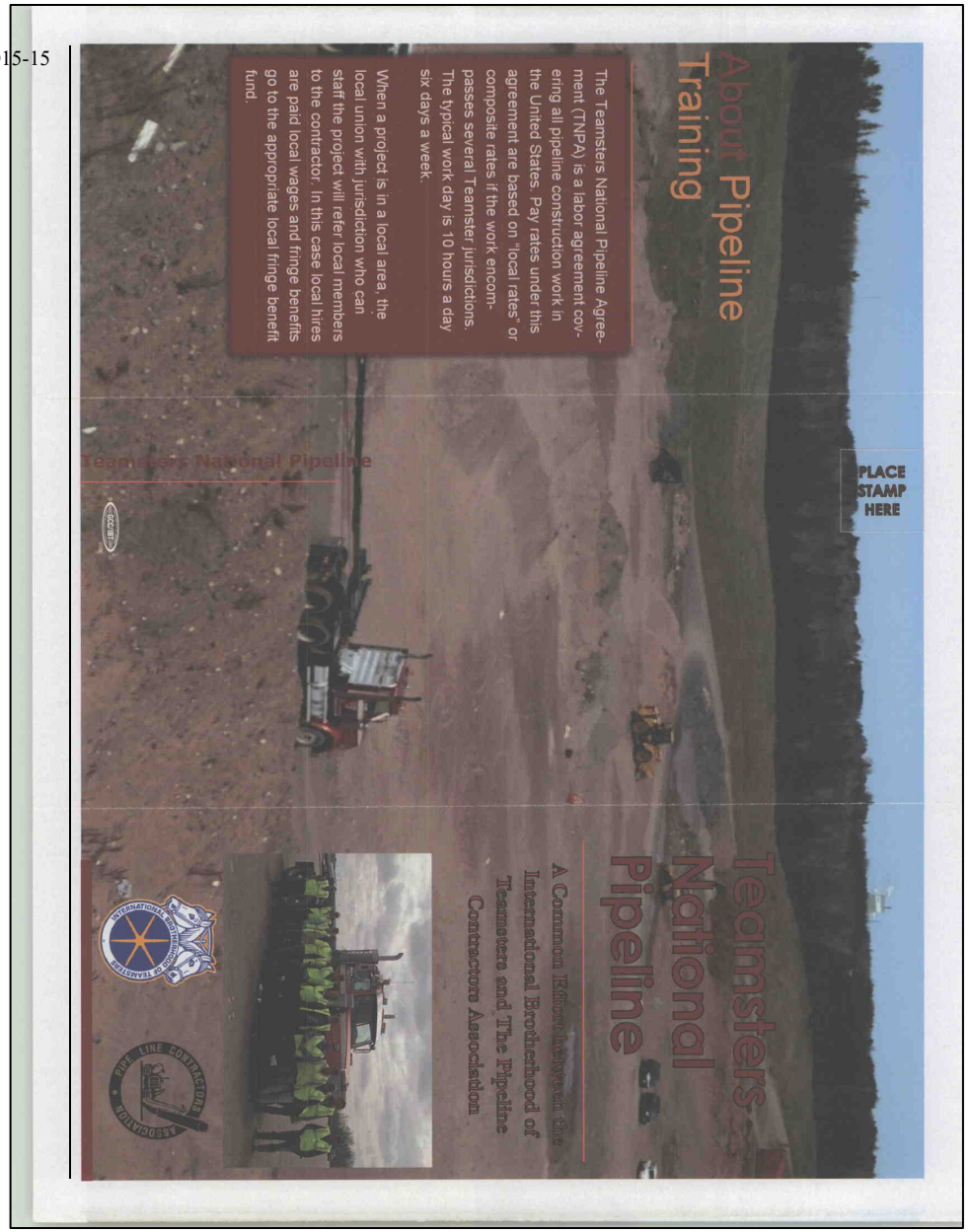
Thank you for your service to our country. We hope the resources available are beneficial to you and your family.

Please return your completed form via mail or fax to: *Teamsters Building and Construction Trades Division, 25 Louisiana Avenue, NW, Washington, D.C. 20001, or fax (202) 624-8107.*

IND15-14 See response to comment IND15-1.

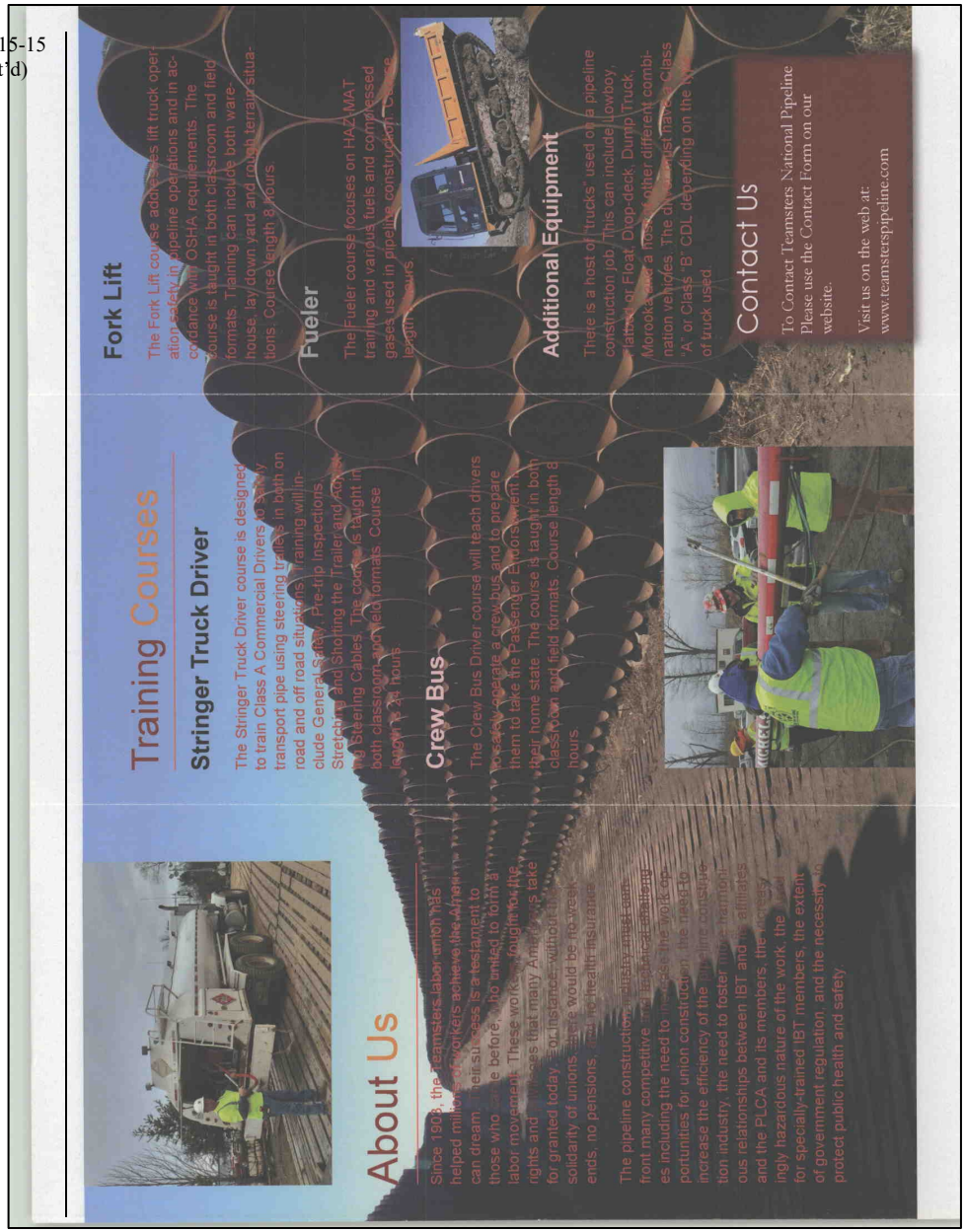
EXHIBIT H

IND15-15



IND15-15 See response to comment IND15-1.

IND15-15
(cont'd)



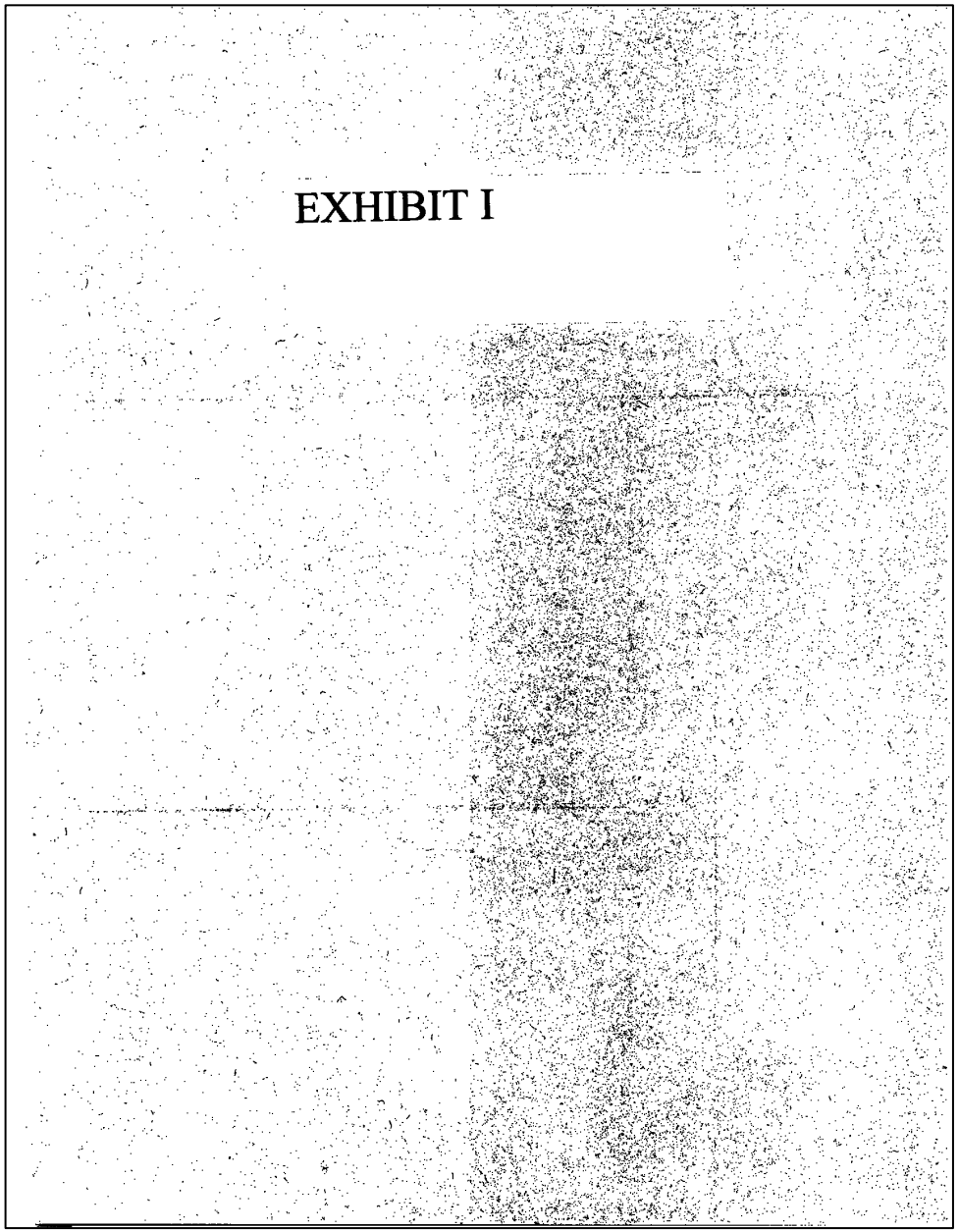


EXHIBIT I

IND15-16

IND15-16 See response to comment IND15-1.

IND15-16
(cont'd)

Objective...

- Dallas Fort Worth market recruitment Job Fair on Friday August 17th, Saturday August 18th and Sunday August 19th. THE GOAL: driving attendance and traffic to Teamsters Union Hall Local 745 to fill jobs ASAP on Gulf Coast Pipeline.
- Target reach: Men 21 – 64 years (must have CDL)
- Featuring a 9 day high frequency media blitz starting Saturday 8/11/18 – Sunday 8/19/18 cut off at 10am.
- Focusing on media platforms that have brought Teamsters success - Radio, TV, and Streaming TV
- Targeted market: Dallas Fort Worth, TX areas

iHeartMEDIA

2

IND15-16
(cont'd)

Our "Go to Market" Recommendation...

- Knowing the amount of hires that need to be made, we are recommending at least a 9 day campaign focusing on a dominate presence in the Dallas market using:
  - Radio
  - Local Television
  - Streaming Television – Premion, Facebook, YouTube
- As added value with no additional cost to the Teamsters (Katie Muniak) will write and distribute press release to all local newspapers and media outlets about Atlantic Coast Pipeline project and jobs.
- With radio, we will include again :15 second PSA radio commercials on the stations involved.

iHeartMEDIA

3

IND15-16 (cont'd)

having unchecked power."

The mayor's position is officially nonpartisan. Nebraska has a two-term limit for both the governor and the state legislators.

—

9:35 a.m.

A Nebraska Public Service Commission candidate who campaigned on her opposition to the Keystone XL pipeline has conceded to a Republican state lawmaker who has supported the project.

Democrat Christa Yoakum, of Lincoln, acknowledged her loss Wednesday to Sen. Dan Watermeier, of Syracuse, in a race that focused heavily on the $8 billion project.

The Public Service Commission approved a route for the pipeline last November, but that decision is under review by the Nebraska Supreme Court.

Yoakum's supporters note that the race was the closest in recent history and vowed to continue fighting the pipeline.

Watermeier has said he ran for reasons unrelated to the pipeline. The commission regulates industries including taxicabs, telephone companies and grain elevators. His District 1 seat includes Lincoln and southeast Nebraska.

—

9:15 a.m.

Democrat Kara Eastman has conceded to Republican U.S. Rep. Don Bacon in the race for Nebraska's 2nd Congressional District.

Eastman said she planned to speak to Bacon Wednesday morning, hours after Bacon was declared

Port Arthur LNG

CHENIERE

November 30, 2018

Hon. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Port Arthur LNG, LLC; PALNG Common Facilities Co., LLC; Port Arthur Pipeline, LLC
Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001 and CP18-7-000
Joint Statement on Cooperation

Dear Ms. Bose:

IND16-1 (cont'd)

On November 19, 2018, Sabine Pass LNG, L.P., Sabine Pass Liquefaction, LLC and Cheniere Creole Trail Pipeline, L.P. (collectively, Sabine Pass and Creole Trail) submitted comments (November 19 Comments) regarding certain limited aspects of the Port Arthur Liquefaction, Texas Connector and Louisiana Connector Projects (the Project). These comments noted that Sabine Pass and Creole Trail are not opposed to the Project, but are working in coordination with Port Arthur LNG, LLC, Port Arthur Common Facilities Co. LLC and Port Arthur Pipeline, LLC (Port Arthur) representatives to resolve potential concerns associated with construction and operation of jurisdictional facilities in close proximity. For its part, although Port Arthur does not agree with the points and requests made in the November 19 Comments, it is committed to working cooperatively to address the comments of Sabine Pass and Creole Trail.

This joint letter provides the Commission with updates on the progress the parties are making to address these matters. Our project teams are scheduled to meet in person during the first week of December. Initial discussions have been cordial, and we are optimistic that further refinement of the issues and a mutual resolution can be reached before Commission issuance of the Final Environmental Impact Statement for the Project. For this reason, the undersigned parties request that the Commission Staff withhold action on the Sabine Pass and Creole Trail requested condition and cumulative impacts analysis pending the outcome of these discussions among the parties.

The parties anticipate filing a status update following the December meeting.

Sincerely,

/s/ Jerrod L. Harrison
Jerrod L. Harrison
Sr. Counsel
Sempra North American Infrastructure
488 8th Avenue
San Diego, CA 92101
(619) 696-2987
jharrison@SempraGlobal.com

Counsel for Port Arthur

/s/ Janna Romaine Chesno
Janna Romaine Chesno
Sr. Counsel
Cheniere Energy, Inc.
701 8th Street NW, Suite 810
Washington, DC 20001
(202) 442-3064
janna.chesno@cheniere.com

Counsel for Sabine Pass and Creole Trail

IND16-1 Comments noted.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

ORIGINAL

November 15, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, D.C. 20426

Dear Ms. Bose: CP17-20-000

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Port Arthur LNG and Connector Projects (CEQ No. 20180229) pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations (40 CFR Parts 1500 – 1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The purpose of the proposed action is to construct and operate onshore natural gas liquefaction and associated facilities in Texas to allow the export of liquefied natural gas, and to construct, own, operate, and maintain interstate natural gas pipelines, new compressor stations, and ancillary facilities in Texas and Louisiana. The EPA is a cooperating agency for this project.

FA1-1 EPA's primary concerns are the potential impacts to wetlands. Section 4.4 of the DEIS discusses temporary wetland impacts associated with construction and operation of the proposed action. For scrub-shrub wetlands, the DEIS identifies a timeline of 2 to 4 years to reach functionality similar to preconstruction conditions, and even longer for forested wetlands. Lastly, there are forested wetlands that may be converted into other wetland types. If available at the time the Final Environmental Impact Statement (FEIS) is published, please include the following: compensatory mitigation for each of the impacted wetlands, location of compensatory mitigation sites and demonstration of in-kind or appropriate out-of-kind compensatory mitigation options, the amount of dredge material produced in each area and the projected beneficial use project(s), including location of the dredge placement sites and the resulting acreage produced by the project.

FA1-2 Section 4.9.8.3 identifies the primary project-related health risk associated with an unanticipated failure at the liquefaction terminal, pipelines, or compressor stations. The EPA suggests the FEIS incorporates a map of the population demographics in proximity to the proposed action to further characterize those at potential risk.

Please note that effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change is explained in the Memorandum on Changes to EPA's Environmental Review Rating Process, available at https://www.epa.gov/nepa/policy-and-procedures-review-federal-actions-impacting-environment-under-section-309-clean-air.

FA1-1 See response to comment SA3-1 regarding compensatory mitigation.

Sections 2.1.1.5, 2.1.1.6, and 2.1.1.7 of the final EIS discuss the locations and amounts of dredge materials removed. Sections 2.1.1.10 and 4.4.2.1 describe the disposal areas and beneficial reuse of dredge materials.

FA1-2 If there were to be a failure of the pipelines or LNG facilities, it would be at a specific point along the pipeline or within the facilities. Consequences from such failures are required to be evaluated under DOT regulations in 49 CFR 192 for pipelines and 49 CFR 193 for the LNG facilities, and require certain provisions be in place based on the consequences. In addition, consequences from accidental and intentional failures of the LNG marine vessels are required to be evaluated under U.S. Coast Guard regulations and are discussed in Section 4.12.

The DOT regulations do not allow for certain credible consequences to extend beyond a property line that can be built upon. In addition, FERC staff evaluates a variety of consequences to ensure the risk of other higher consequences are reduced to insignificant levels. The U.S. Coast Guard also evaluates the consequences from LNG marine vessels to ensure the risk to the public is reduced to an insignificant level.

Section 4.9.8 discusses environmental justice and concludes that no there is no evidence that the Projects would cause a disproportionate share of adverse environmental or socioeconomic impacts on any racial, ethnic, or socioeconomic group. This conclusion takes into account the demographics associated with the census tracts impacted by the Projects. We defer to our analysis in section 4.9.8 of the demographics, and more broadly in section 4.9. Section 4.12 also discusses the safety of the facilities and the regulatory oversight.

We appreciate the opportunity to provide comments on this document. If you have any questions, please contact Kimeka Price, the lead contact for this project, at (214)665-7438 or price.kimeka@epa.gov.

Sincerely,

Cheryl T. Seager
Director
Compliance Assurance and
Enforcement Division

ec: David Hanobic, FERC, David.Hanobic@ferc.gov

2

20181113-0011 FERC PDF (Unofficial) 11/13/2018

USDA
United States Department of Agriculture

ORIGINAL

Natural Resources
Conservation Service

State Office

101 S. Main Street
Temple, TX 76501
Voice 254.742.9800
Fax 254.742.9819

October 30, 2018

2018 NOV 13 A 9:56

Federal Energy Regulatory Commission
888 First St NE, Room 1A
Washington, DC 20426

Attention: Kimberly D. Bose, Secretary

Subject: LNU-Farmland Protection
Port Arthur Liquefaction Project
Docket No. (CP17-20-000, CP17-21-000, CP18-7-000)
NEPA/FPPA Evaluation
Jefferson and Orange Counties, Texas

SA1-1

We have reviewed the information provided in your correspondence dated September 28, 2018 concerning the proposed natural gas pipeline improvements project located in Jefferson and Orange Counties, Texas. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Federal Energy Regulatory Commission (FERC). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The proposed North Compressor Station site contains areas of Statewide Important Farmland and we have completed the Farmland Conversion Impact Rating form (AD-1006) for the proposed site. The combined rating of the site is **88**. The proposed South Compressor Station site does not involve areas of Prime Farmland. The FPPA law states that sites with a rating less than 160 will need no further consideration for protection and no additional evaluation is necessary.

Additionally, the installation of belowground pipelines and appurtenances are not considered a permanent conversion of farmland. Therefore, the corresponding activities of the project are exempt from provisions of FPPA. We urge you to use accepted erosion control methods during construction and to place topsoil back as the surface layer when backfilling trenches.

If you have further questions, please contact me at 254.742.9836 or by email at Carlos.Villarreal@usda.gov (Preferred).

Sincerely,

CARLOS VILLARREAL
Digitally signed by CARLOS VILLARREAL
Date: 2018.10.30 16:06:46 -05'00'

Carlos J. Villarreal
NRCS Soil Scientist

Attachment: **Farmland Conversion Impact Rating form (AD-1006)**

An Equal Opportunity Provider and Employer

SA1-1 Section 4.2.1 of the final EIS has been updated with the information provided.

STATE AGENCY COMMENTS

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 09/28/2018	
Name of Project North Compressor Station		Federal Agency Involved FERC	
Proposed Land Use Pipeline compressor unit		County and State Orange County TX	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 10/16/2018	Person Completing Form: Carlos J. Villarreal
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated 388	Average Farm Size 79
Major Crop(s) Corn, Cotton, Small Grains	Farmable Land In Govt. Jurisdiction Acres: 52799 % 22	Amount of Farmland As Defined in FPPA Acres: NA % NA	
Name of Land Evaluation System Used National Commodity Crop Production Index	Name of State or Local Site Assessment System None	Date Land Evaluation Returned by NRCS 10/30/2018	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	39			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	39			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0			
B. Total Acres Statewide Important or Local Important Farmland	39			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.07			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	20			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	67			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	13			
2. Perimeter In Non-urban Use	(10)	8			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	0			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	21	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	67	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	21	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	88	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☑
Reason For Selection:		
Name of Federal agency representative completing this form:		Date:

(See Instructions on reverse side) Form AD-1006 (03-02)

STATE AGENCY COMMENTS

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM
(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

TEXAS HISTORICAL COMMISSION
real places telling real stories

November 2, 2018 ORIGINAL

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First St NE, Room 1A
Washington, DC 20426

Re: *Draft Environmental Impact Statement for the Proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project (CP17-20-000, CP17-21-000, and CP18-7-000), Jefferson and Orange Counties (FERC/106, THC #201900840)*

Dear Kimberly D. Bose:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed undertaking from Mark Wolfe, Executive Director of the Texas Historical Commission and the State Historic Preservation Officer.

The History Programs Division (HPD) review staff, led by Caitlin Brashear, the Division of Architecture (DOA) review staff, led by Lydia Woods, and the Archeology Division (AD) review staff, led by Maggie Moore and Amy Borgens, have completed their review of the draft environmental impact statement (DEIS) for the proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project (CP17-20-000, CP17-21-000, and CP18-7-000. Regarding this review, the THC has the following comments.

SA2-1 Beginning on page 4-211, the DEIS summarizes the archeological investigations that have been conducted to date and the associated review responses from the THC. On page 4-212, the DEIS states that "in a letter dated September 16, 2016, the Texas SHPO concurred with the Phase I Cultural Resources Survey Report's NRHP assessment of not eligible for the identified five historic architecture resources." The THC did not provide concurrence for those five structures in that response letter, however the THC does concur that those five structures are **not eligible** for listing to the National Register of Historic Places (NRHP).

SA2-2 The Texas portion of the Port Arthur Pipeline Project in Sabine Lake was surveyed by T. Baker Smith and R. Christopher Goodwin and Associates, Inc. in August 2017. Comments from the THC were omitted from the DEIS in Section 4.10.1.2 page 4-213, regarding the submerged archeological investigation of the pipeline that extends into Texas waters except to state that the SHPO comments have not been provided—the meaning of which is unclear.

SA2-3 The THC reviewed the draft report for the underwater remote-sensing archeological survey conducted by Goodwin and Associates for Antiquities Permit No. 8060. Additional information was required for magnetometer targets 21, 37, 57, and 59 before the review could be completed. The THC cannot concur "that no submerged cultural resources nor relic geomorphic features with the potential for archaeological deposits were present" until additional information is provided, An inquiry was sent to the archeological contractor on 29 December 2017, 9 February 2018, and again on 22 October 2018 after the DEIS was received.

SA2-4 Our July 28, 2017 letter requesting scraping at Granger Cemetery was in response to an email indicating the line would in fact be placed within 25 feet of the cemetery. Additionally, to date our office has not received reports on the cemetery scraping; survey of the three previously recorded sites 41JF84, 41JF91, and 41OR89; or on the remaining Northern pipeline, laterals, TETCO and NGPL Meter Stations, and access roads. This work is not mentioned in outstanding Section 106 obligations listed in Section 4.10.4.2. Please include the completion of this work prior to construction of facilities or use of staging, storage, or temporary workspaces to Section 4.10.4.2. According to our records, the THC has not received or reviewed an anticipated discovery plan as stated in Section

SA2-1 Section 4.10.1.2 of the final EIS has been updated to reflect the correct date of concurrence for the five historic architecture resources.

SA2-2 To date, PAPL has not provided this information to the FERC.

SA2-3 To date, PAPL has not provided this information to the FERC.

SA2-4 To date, PAPL has not provided this information regarding the Granger Cemetery to the FERC.

Based on information from the Applicants, and as stated in section 4.10.2 of the final EIS, PALNG and PAPL committed to providing its *Unanticipated Discoveries Plans* to the Texas SHPO for review. If additional changes to the *Unanticipated Discoveries Plan* are required, FERC requests that these be directed to PALNG and PAPL. Per Environmental Recommendations 4 and 5, PALNG and PAPL will be required to file all pending agency correspondence and all final survey reports. The *Unanticipated Discoveries Plan* provided to FERC can be found on the FERC eLibrary website using Accession Numbers 20161129-5254 (Liquefaction Project) and 20171212-5147 (Texas Connector Project). Also, PAPL filed a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005). .

SA2-4 (cont'd) 4.10.2. The THC recommends that an anticipated discovery plan needs to be submitted for review and concurs that any portion of the project that has not yet been surveyed needs to be surveyed and submitted for review by our office.

SA2-5 Finally, it should be noted that a portion of the proposed Texas Connector Project will be located within the *Lucas Gusher, Spindletop Oil Field* (NR# 66000818), which was listed in the National Register as a historic district in 1966. Therefore, a clearer idea of impact on the historic district is needed. In addition, in accordance with Section 110, the National Park Service needs to be involved with this review since the historic district is also a National Historic Landmark.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further assistance, for archeology please contact Maggie Moore at 512-463-6508 or maggie.moore@thc.texas.gov, for marine archeology please contact Amy Borgens at 512-463-9505 or amy.borgens@thc.texas.gov, for architecture please contact Lydia Woods at 512-463-9122 or lydia.woods@thc.texas.gov, or contact Caitlin Brashear at 512-463-5851 or caitlin.brashear@thc.texas.gov.

Sincerely,

Caitlin Brashear

Caitlin Brashear, Historian, Federal Programs
For: Mark Wolfe, State Historic Preservation Officer

cc: Tom Keohan, Historical Architect, National Park Servce, tom_keohan@nps.gov

SA2-1

GREG ABBOTT, GOVERNOR • JOHN L. NAU, III, CHAIR • MARK WOLFE, EXECUTIVE DIRECTOR
P.O BOX 12276 • AUSTIN, TEXAS • 78711-2276 • P 512-463-6100 • F 512-475-4872 • TDD 1-800-735-2989 • thc.texas gov

SA2-5 Section 4.10.1.1 of the final EIS has been updated to describe the impacts from the Texas Connector Project. We acknowledge that the National Park Service would need to be involved regarding the National Historic Landmark.

TEXAS PARKS & WILDLIFE

Life's better outside.®

November 19, 2018

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Re: Port Arthur LNG, LLC; PALNG Common Facilities Company, LLC; Port Arthur Pipeline, LLC
Notice of Availability of the Draft Environmental Impact Statement for the Proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project
Docket Nos. CP17-20-000
CP17-21-000
CP17-21-001
CP18-7-000

Dear Secretary Bose:

Texas Parks and Wildlife Department (TPWD) has reviewed the subject Draft Environmental Impact Statement (DEIS), dated September, 2018. The overall purpose of the three subject projects is to convert natural gas into liquefied natural gas (LNG) for export. The Liquefaction Project (LP), located in Jefferson County, Texas, would consist of a liquefaction facility that includes two liquefaction trains, a two-berth marine terminal for ship docking and loading, and various other infrastructure components. In addition, the LP would relocate 3.3 miles of State Highway 87 and existing pipelines and utilities that parallel the highway. Natural gas would be supplied to the LP by two, 42-inch-diameter pipelines. The Texas Connector Project (TCP) would include about 34.2 miles of pipeline with associated infrastructure and would be located in Jefferson and Orange Counties, Texas and Cameron Parish, Louisiana. The Louisiana Connector Project (LCP) would include about 130.8 miles of pipeline with associated infrastructure and would be located in Jefferson County, Texas and multiple parishes in Louisiana.

TPWD's comments below on fish and wildlife resources relate only to the Texas portions of the proposed projects.

Compensatory Mitigation for Wetland Impacts

SA3-1 Construction of the projects would impact a total of about 2,105 acres of wetlands in Texas based on data from pages ES-5, ES-6, 4-54 and 4-55. As compensation for the LP's wetland impacts, the applicant proposes placing 2.4 million cubic yards of dredged material into TPWD's J.D. Murphree Wildlife Management Area (WMA) to restore about 1,269 acres of tidally influenced coastal marsh. However, no compensation was proposed for any of the TCP's proposed wetland impacts.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

SA3-1 PAPL has submitted an application to the USACE for compensatory mitigation using wetland mitigation bank credits and agency in-lieu fee programs for the Texas Connector Project, as discussed in section 4.4.2.2 of the final EIS. An USACE-approved Compensatory Mitigation Plan is tied to the USACE's overall consideration of whether to issue section 404 Permits for dredging activities and wetland impacts associated with construction of the Projects, including the Texas Connector Project. The USACE would ultimately determine if the Applicants' proposed mitigation is adequate and that it would compensate for any remaining impacts that can neither be avoided nor minimized such that overall project impacts on the aquatic environment are minimal on both an individual and cumulative basis. Per Environmental Recommendation 10 in section 5.2, PAPL would be required to receive written authorization from the Director of OEP before commencing construction of any project facilities and, to obtain such authorization, PAPL must file documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof), which includes those required by the USACE.

SA3-1 (cont'd)

Recommendations: The applicant should compensate for all temporary and permanent wetland impacts identified for the TCP as follows:

- Purchase the appropriate amount of in-kind wetland credits from the Pineywoods Mitigation Bank for impacts to forested wetlands and for impacts to freshwater, non-forested wetland impacts occurring within the bank's secondary service area. Specifically, this includes project features associated with the northern pipeline (i.e., milepost 20.1 to 26.55 of the mainline, lateral pipelines, access roads, additional temporary workspaces, contractor yard 3, and the north compressor station).

- Increase the amount of compensation proposed at the WMA by incorporating estuarine wetland impacts.

SA3-2

Compensatory mitigation conducted on TPWD-owned lands must be done in a manner consistent with the mission of TPWD, department policy, and applicable Texas laws (e.g., Chapter 26 of the Parks and Wildlife Code and Chapter 34 of the Natural Resources Code). Specific details of any habitat restoration activity will need to be reviewed on a case-by-case basis, and each project will need to be compatible with the mission, and short-term and long-term restoration needs and goals of TPWD at the time the project is undertaken.

Page 4-20 addresses coordination between TPWD and the applicant regarding placement of dredged material at the WMA for compensatory mitigation. However, page 4-162 states, "PALNG has entered into a lease agreement . . . with the TPWD." Although we have agreed in principle that we will accept dredged material on the WMA, and we have granted the applicant written permission to access the WMA for their planning and data gathering efforts, TPWD does not have any written lease or other agreement with the applicant to conduct compensatory mitigation at this time.

Recommendation: Section 4.8.4.1 be revised to read as follows: "PALNG is negotiating a surface use agreement with the TPWD to use the J.D. Murphree WMA as a site for placement of dredge material."

TPWD does not grant a surface use agreement for third-party habitat restoration projects on the WMA until the work is imminent, TPWD has documentation that the dredge material is clean and usable, a complete mitigation plan is in hand and approved, and a specific location(s) has been determined based on local needs at the time. In addition, TPWD does not grant exclusive access to any one entity for habitat restoration at the WMA and will continue to pursue restoration partnerships with other public and private entities. Therefore, any area(s) within the WMA may, at TPWD discretion, be restored at any time if need and availability of dredge material coincide. This may make areas within the WMA identified in the proposed compensatory mitigation plan unavailable to the applicant.

Recommendation: The applicant should continue coordination with TPWD for use of the WMA as a component of their compensatory mitigation plan.

SA3-2 PALNG has stated it would continue to work with the TPWD to develop a beneficial use of dredge material plan as part of a Surface Use Agreement for placement of material at the J.D. Murphree WMA, as discussed in section 4.2.2.1 of the final EIS.

Section 4.8.4.1 of the final EIS has been revised to reflect the recommended language.

Oyster Impacts

SA3-3 No explicit statement was provided anywhere within the DEIS on whether oyster habitat would be avoided or impacted. However, TPWD is concerned that proposed construction activities associated with the installation of the LCP pipeline could bury or smother a total of about 2.44 acres of oyster habitat within the Texas portion of Sabine Lake (based on analysis of GIS shape files associated with the applicant's oyster survey assessment dated October, 2017). Specifically, three oyster habitat areas, consisting of 0.502-acre, 0.442-acre, and 0.419-acre patch reefs, were identified in the 300-foot-wide temporary construction workspace[1] east of the horizontal directional drill (HDD) exit at milepost 0.8.

> **Recommendation:** The HDD exit should be relocated about 768 feet toward the northeast (Latitude 30.029614° North, Longitude 95.286616° West) to avoid direct impacts to these three oyster habitat areas.

There are also two oyster habitat areas, 0.783 acre and 0.297 acre, located within the pullback area identified as ATWS-JEF-006.

> **Recommendation:** Direct impacts to these two oyster habitat areas may be avoided by marking these areas during construction as vessel exclusion zones so that pipelines and other equipment are not placed on or dragged over oyster habitat.

SA3-4 TPWD is also concerned that vessel access, travel lanes, and associated activities (e.g., vessels carrying equipment on deck to workspaces or dragging pipes along the lake bottom) could potentially impact oyster habitat outside of the proposed temporary workspaces.

> **Recommendation:** The applicant should develop a vessel access route and plan, and coordinate the proposed plan with the resource agencies, particularly TPWD, so that an appropriate route(s) can be identified that will avoid oyster habitats. TPWD also recommends the proposed plan include the following information:
>
> - A map that identifies the travel lanes for each route in relation to the proposed temporary workspaces, the 50-foot-wide permanent right-of-way, and the pipeline's centerline. The map should also contain geographic coordinates (in decimal degrees) for each travel lane to include the vessel entry point, vessel exit point, and each angle (or bend).
> - The designated access route(s) will be marked with reflective PVC pipe, or other suitable material and with numeric labeling, to assure that vessel operators can easily follow the access route.

[1] The 300-foot-wide temporary construction workspace includes the 50-foot-wide permanent right-of-way.

SA3-3 Section 4.6.2.1 of the final EIS has been updated based on PAPL's supplemental filing. PAPL has proposed mitigation measures for potential impacts on oyster resources, including providing compensation to the TPWD towards an oyster restoration project in the watershed, providing suitable material for an oyster cultch plant within the lake to offset impacts, or reseeding the temporary workspace after construction with live oysters or cultch material. If PAPL would modify its proposed HDD location as a result of consultations with the TPWD and to avoid oyster beds, it would be required to file a revised HDD crossing plan for FERC review and approval prior to construction.

SA3-4 See response to comment SA3-3.

SA3-4 (cont'd)

- All channel markers will be inspected daily, and all missing markers will be replaced within 12 hours.
- Establish a minimum 2.0-foot clearance between the lake bottom and the vessel bottom for all vessel entries and exits.
- Vessel drafts should not exceed the minimum water depths within the project area and access route(s).
- Tide staffs should be placed at key points along the access route(s) for vessel operator reference and record keeping.
- Vessel operators should be required to log the draft of the vessel and the tide level prior to vessel movements.
- Any oyster habitat identified within the proposed pullback area, HDD exit location, and access route(s) should be protected with boom-type silt curtains.
- The applicant should submit pre-project and post-project bottom elevation surveys along the pipeline and access route(s) to verify that no prop/wheel-washing occurred as a result of the project. Transects should be spaced a maximum of 50 feet apart and continual soundings will be taken along those transects. The applicant should take soundings along transects located on the clearly marked access route right-of-way along the centerline and 200 feet on each side of the centerline. All survey results should be submitted to the U.S. Army Corps of Engineers – Galveston District. A GPS plot of the route should be submitted with the survey results.

Essential Fish Habitat-Managed Species

SA3-5 Page 4-110 states that Bull Shark *Carcharhinus leucas* juveniles, neonates, and adults are rare within the Sabine-Neches Waterway. However, this statement is inconsistent with TPWD gillnet sampling data for shark abundances in the Sabine Lake system. Bull Sharks are often present and, in fact, are the most abundant shark species found in the Sabine Lake system.

Recommendation: The term "rare" should be replaced with "often present".

Threatened and Endangered Species

SA3-6 On October 9, 2018, the Eastern Black Rail *Laterallus jamaicensis* was proposed to be listed by the U.S. Fish and Wildlife Service (USFWS) as threatened under the federal Endangered Species Act.

Recommendation: If impacts to Eastern Black Rail are anticipated, then TPWD recommends coordination with USFWS' Texas Coastal Ecological Services Field

SA3-5 Section 4.6.3.1 of the final EIS has been revised to reflect the recommended language.

SA3-6 Section 4.7.3.5 has been added to the final EIS to address the Eastern black rail.

SA3-6 (cont'd)

Office – Houston (281-286-8282), and with TPWD as appropriate, to determine avoidance or other appropriate mitigation strategies.

Texas Natural Diversity Database

SA3-7

TPWD maintains records of occurrence for legally protected and other Species of Greatest Conservation Need within the Texas Natural Diversity Database (TXNDD), and these data are publicly available by request. The TXNDD is intended to assist users in avoiding harm to rare species. The TXNDD is updated continuously and relies partially on information submitted by private parties, such as developers or their consultants. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state.

Recommendation: To aid in the scientific knowledge of a species' status and current range, TPWD encourages reporting encounters of protected and rare species to the TXNDD according to the data submittal instructions located at https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml.

TPWD advises implementation of our previous recommendations (correspondence dated May 9, 2016 and May 8, 2017) to minimize impacts on fish and wildlife resources that are not otherwise described above.

TPWD requests that all of the above recommendations be incorporated into the Final Environmental Impact Statement. Questions can be directed to Mr. Mike Morgan (281-534-0146) in the Dickinson Marine Lab.

Sincerely,

Rebecca Hensley

Rebecca Hensley
Regional Director, Ecosystem Resources Program
Coastal Fisheries Division

RH:CR:MNM

SA3-7 FERC reviewed the Texas Natural Diversity Database when evaluating the Projects; known occurrences are reported in section 4.6.1.3 of the final EIS.

We encourage the applicant to report any encounters of rare or protected species to the Texas Natural Diversity Database.

Sabine Pass Port Authority
P.O. Box 318
Sabine Pass, TX. 77655
409-971-2411
Mic@sabinepassportauthority.com

October 12, 2018

Comments on:

Port Arthur Liquefaction Project
Projects docket number CP17-20-000, CP17-21-000 and CP18-7-000

The Sabine Pass Port Authority (SPPA) supports the Port Arthur LNG project. There are several key factors concerning the Port Arthur LNG project that make the project significant to SPPA and the community of Sabine Pass.

LA1-1 First, Sempra's commitment to relocate a section of HWY 87 away from the Sabine Neches ship channel is a significant step in providing a safer route of travel for Sabine Pass residents, visiting tourists and commercial business commuters. This highway is the only route into and out of Sabine Pass and with Sempra's pledge to move the highway to higher ground and improve the roadway it will provide many years of safe, reliable travel.

LA1-2 Second, the economic development benefits of this project will be tremendous, not just during the construction phase but also during the life of the plant's operations. The construction jobs will bring a surge of workers into the area that will buy goods and services from our businesses. It is also anticipated that many of the construction workers will take up residence in our area taking advantage of the many RV camp grounds that Sabine Pass has to offer.

LA1-1 Sections 2.1.4.1, 4.2.1.4, 4.3.2.1, 4.9.6.3, and 4.12.12 of the final EIS have been updated to indicate the possible benefits of the relocation of SH 87 as noted by commenters.

LA1-2 Comments noted. Socioeconomic effects, including tax revenue, job creation, and economic development, are discussed in section 4.9 of the final EIS.

LA1-2 (cont'd) Over the life of the Port Arthur LNG plant, the tax revenue from the plant will enable SPPA to continue to grow which will result in the creation of new jobs and greater opportunities for the residents of Sabine Pass.

Thirdly, Sempra has already proven themselves to be a trusted business partner and community advocate. They are very active in our community and continually provide updates on the project and seek the public's insight into issues that may be of a concern. They have supported our Chamber, Schools and Civic organizations and recently took a leadership role in supporting the Coastal Conservation and Texas Parks Wildlife artificial reef project in the Sabine Pass area.

We look forward to the Port Arthur LNG project being developed in the Sabine Pass area and are confident that Sempra will continue to demonstrate the ethical, professional and community commitment that they are known for.

Sincerely,

Mic Cowart

Mic Cowart
Manager
Sabine Pass Port Authority

ORIGINAL

Greater PORT ARTHUR CHAMBER OF COMMERCE

October 11, 2018

Secretary Kimberly D. Bose
Federal Energy Regulatory Commission
888 First St. NE, Room 1A
Washington, DC 20426

Port Arthur Liquefaction Project
Projects docket numbers (CP17-20-000, CP17-21-000, and CP18-7-000)

The board of directors of The Greater Port Arthur Chamber of Commerce wish to enter the following comments, in support of, Port Arthur LNG Project. The Greater Port Arthur Chamber of Commerce has supported the economic development of Port Arthur for 118 years, beginning in 1899.

LA2-1 From an economic development perspective, the, multi-billion-dollar, Port Arthur LNG Project will bring new jobs and taxes, directly, to the city, school, county, state and country. The 3500 construction jobs and 200 permanent jobs will support existing local retail and service business such as, restaurants, hotels, etc. and attract new local retail and service businesses.

LA2-2 Due to having to move a 3-mile portion of Highway 87 between the Intracoastal Waterway and Keith Lake Pass, will replace a worn and outdated highway. The new highway will reduce the risk of high tides blocking this important route and benefit Sabine Pass residents and industry located between Sabine Pass and Port Arthur.

LA2-1 (cont'd) Port Arthur LNG is already investing in our community organizations such as, chambers of commerce, school foundations and other non-profit organizations. They contribute directly to Port Arthur ISD, Sabine Pass ISD and Lamar State College – Port Arthur.

LA2-3 While the chamber is a pro-business, economic development corporation it recognizes the need for environmental awareness of our industries. Port Arthur LNG's project will result in the improvement of almost 1,200 acres of degraded marshland. The project will provide for the export of a clean burning fuel to countries that are reliant on oil and coal. This is a positive benefit for our region, country and the world. Sempra LNG & Midstream is partnering with Coastal Conservation Association and the Texas Parks & Wildlife Department to support the Sabine Artificial Reef Project to build a vital habitat for a variety of species along the upper Texas Coast.

LA2-4 The Port Arthur LNG project will help promote the deepening of the channel which will benefit all user of the waterway. All new ships will bring more business, new jobs, growth of revenues to local businesses. The Port of Sabine Pass and Port of Port Arthur will receive new revenue generated from the project and channel improvement as a result there of.

Sincerely,

William B. McCoy

President/CEO

LA2-1 See response to comment LA1-2.

LA2-2 See response to comment LA1-1.

LA2-3 Comments noted. The beneficial use of dredge material to restore marshland at the J.D. Murphree WMA is discussed in sections 2.1.1.10, 4.5.2.1, 4.6.1.1, 4.6.3.2, and 4.8.6.1 of the final EIS.

LA2-4 PALNG would not be deepening the channel but instead creating additional waterway to accommodate its proposed marine berth, MOF, and Pioneer Dock. FERC notes that deepening of the Port Arthur Canal is periodically conducted under the regulatory authority of the USACE.

NATIVE AMERICAN TRIBES COMMENTS

Choctaw Nation of Oklahoma
Historic Preservation
P.O. Box 1210 • Durant, OK 74702-1210

Gary Batton
Chief

Jack Austin, Jr.
Assistant Chief

November 6, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Docket No.'s: CP17-20-000, CP17-21-000, CP18-7-000, Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector Project

Ms. Bose,

NAT1-1 The Choctaw Nation of Oklahoma thanks FERC for the correspondence regarding the above referenced project. This project lies in the Choctaw Nation's area of historic interest. Based upon the number of Parishes in Louisiana, there is a chance of encountering Choctaw cultural or sacred sites. Before the Choctaw Nation of Oklahoma can provide comments we will need additional information.

The Choctaw Nation Historic Preservation Department requests a copy of the EIS, a copy of the cultural resources survey, and the GIS shapefiles for the project.

If you have any questions, please contact me.

Sincerely,

Lindsey D. Bilyeu

Lindsey D. Bilyeu, MS
Senior Compliance Review Officer
lbilyeu@choctawnation.com
580-924-8280 ext. 2631
Choctaw Nation of Oklahoma
Historic Preservation Department
P.O. Box 1210
Durant, OK 74702

NAT1-1 Sections 4.10.3.1 and 4.10.3.2 of the final EIS note that this information (including GIS shapefiles) was provided to the Choctaw Nation of Oklahoma by PAPL on June 21, 2015, March 17, 2017, and September 12, 2017. On September 28, 2018, FERC issued a *Notice of Availability of the Draft Environmental Impact Statement for the Proposed Port Arthur Liquefaction Project, Texas Connector Project, and Louisiana Connector* and filed the draft EIS with the EPA. This formal notice of availability was issued in the Federal Register and indicated that the draft EIS was available online via FERC's eLibrary (accession number 20180928-3001).

COUSHATTA TRIBE
OF LOUISIANA
HERITAGE DEPARTMENT

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426
via e-filing

November 19, 2018

re: Comments on Draft EIS in Docket Nos. CP17-20-000, CP17-21-000, CP17-21-001, and CP18-7-000

Dear Secretary Bose:

On behalf of the Coushatta Tribe of Louisiana, a federally-recognized Indian tribe ("CTOL"), I submit the following comments on the draft EIS issued in connection with the above-referenced dockets.

As the federal government has acknowledged in the past, the Coushatta Tribe of Louisiana has a documented and long-standing cultural, religious, and historical nexus to the lands on which the applicant in docket CP18-7-000 ("PAPL") proposes to construct the Louisiana Connector Project. The people of the Coushatta Tribe of Louisiana spent centuries settling various locations along the proposed pipeline corridor. They lived, hunted, worked, worshipped and buried their dead along this route. There is thus a significant likelihood that Tribal cultural resources, including Tribal artifacts, sites, and locations, are dispersed along the entire proposed pipeline corridor.

NAT2-1 Given the proximity of PAPL's proposed project to significant known Tribal locations, project construction could potentially harm archaeological and/or culturally, historically and religiously significant sites and artifacts. Such negative impacts would be irreversibly devastating, potentially annihilating artifacts from and evidence of the Tribe's past and erasing significant sites and locations.

NAT2-2 Despite the significant impacts such a project would have on CTOL, the Draft EIS fails to mention the Louisiana Connector Project's potential negative impacts on the Coushatta Tribe of Louisiana's cultural resources. In fact, the DEIS fails to identify *any* potential negative impacts on Tribal cultural resources, and accordingly fails to analyze those impacts or require mitigation measures to address them.

The following comments begin with a section detailing the Coushatta Tribe of Louisiana's nexus to the lands underlying the Louisiana Connector Project corridor. Section II discusses the ways in which the Louisiana Connector Project could devastatingly impact CTOL's

NAT2-1 Section 4.10.3.2 of the final EIS has been updated to include a brief history of the Coushatta Tribe of Louisiana and an acknowledgment that potential artifacts could be encountered during construction of the Louisiana Connector Project.

NAT2-2 Section 4.10 of the final EIS has been updated to include an acknowledgement that potential cultural resources of the Coushatta Tribe of Louisiana could be encountered during construction of the Louisiana Connector Project. Additionally, per agreements between PAPL and the Coushatta, PAPL has agreed to sponsor a tribal monitoring program that would hire monitors trained by the Coushatta to identify any tribal and cultural artifacts uncovered during construction. PAPL filed a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

cultural resources and outlines the mitigation measures necessary to address the project's anticipated negative impacts. Finally, Section III addresses specific sections in the DEIS that require revision and proposes concrete ways in which those sections should be revised.

In considering and implementing the recommendations below, the FERC is required under federal law to protect and promote CTOL's interests. The Supreme Court has long held that the federal government has trust responsibility to Indian tribes and that federal agencies are required to protect Tribal interests. See, e.g., *Cherokee Nation v. Georgia,* 30 U.S. 1, 17 (1831). Nearly every piece of modern legislation dealing with Indian tribes contains a statement reaffirming the trust relationship between tribes and the federal government. See, e.g., 25 U.S.C. § 458cc, 25 U.S.C. § 3101, 25 U.S.C. § 3701, 25 U.S.C. § 4043, and 20 U.S.C. § 7401. Indeed, the FERC's own policy statement acknowledges the FERC's trust obligations toward Indian tribes: "The Commission acknowledges that, as an independent agency of the federal government, it has a trust responsibility to Indian tribes and this historic relationship requires it to adhere to certain fiduciary standards in its dealings with Indian tribes." 18 C.F.R §2.1c(b).

Before turning to a description of CTOL's historic settlement along the project route, we note that one portion of the proposed pipeline is slated to run directly through the Coushatta Tribe of Louisiana's present-day federal Indian trust land. CTOL has jurisdiction over that land and, accordingly, PAPL will be required to obtain certain Tribal permits as a condition of its construction on that land. It will also be required to negotiate a Right of Way. Further, while working on Tribal land, PAPL will be subject to Tribal jurisdiction. While the majority of proposed revisions in Section III focus on cultural resources issues, some of the proposed revisions focus on ensuring that construction occurring on CTOL's federal Indian trust lands complies with CTOL law, permit requirements, and sovereignty.

I. COUSHATTA TRIBE OF LOUISIANA – HISTORIC SETTLEMENT ALONG THE PROJECT CORRIDOR

NAT2-3

The historic record clearly indicates that the Coushatta people lived along the proposed Louisiana Connector Pipeline corridor for centuries. Indeed, archaeologists and historical linguists place the Coushatta as the northernmost Muskogean group in the Mississippi River valley even prior to recorded European contact (i.e., prior to 1540).[1] Historians further agree that

[1] Examples of cartographic evidence include "Franquelin's 1684 map of Louisiana" which identifies the Tennessee River as the "Caskenampo" River, which means "Many Warriors" in Koasati, the Coushatta Tribe of Louisiana's native language (which is still spoken today among Tribal members). The names of the towns on the Upper Tennessee River were also listed as Caskenampo. The map is available at https://www.loc.gov/resource/g3300.ct000656/?r=0.297,0.301,0.392,0.238,0. Further, the Crisp et.al. Map of 1711 labels the Little Tennessee River as the "River of the Cussates and Hockeleges," and is titled "A compleat [sic] description of the province of Carolina in 3 parts : 1st, the improved part from the surveys of Maurice Mathews & Mr. John Love : 2ly, the west part by Capt. Tho. Nairn : 3ly, a chart of the coast from Virginia to Cape Florida." This map may is available at https://www.loc.gov/item/2004626926/. In addition, the Moll map of 1720 also affirms this location for

NAT2-3 See response to comment NAT2-1.

NAT2-3 (cont'd)

Spanish explorer Hernando DeSoto encountered the Coushatta in 1540 when they were living on islands in the Tennessee River[2]. In the century following this meeting, the Coushatta migrated to the south in search of better arable lands, as well as to avoid the encroachment of Anglo-European settlers.[3]

In 1701, French explorers encountered the Coushatta within the territory of French Louisiana.[4] During the eighteenth century, all of the colonial groups and numerous explorers

---

the Koasati, and also labels the river as "Cussattees or Thegalogos River." The map is available at https://www.loc.gov/resource/g3300.ct000677/?r=0.408,0.278,0.233,0.149,0.

For information on the DeSoto route and early contact between Indians and Europeans, see Hudson, C., *Knights of Spain, Warriors of the Sun* (Univ of Georgia Press, 1997), as well as Hudson, C. & Tesser, C.C., *The Forgotten Centuries: Indians and Europeans in the American South, 1521-1704* (Athens: University of Georgia Press, 1994).

The most complete study on the pre-contact archaeology of the region may be found in Jurney, D., *Diaspora of the Alabama-Koasati Indians across Southeastern North America,* Ph.D. dissertation, Southern Methodist University, December 2001. Jurney and others combine archaeological, historical, and linguistic evidence to place the Koasati within the Dallas, and possibly Mouse Creek archaeological phases in the region. It is also significant that the entire body of Creek Chiefs told President Jefferson's surveyors that they identified the northernmost border of Creek territory as running from "Old Casauda Town on Casauda Island in the Tennessee River" (National Archives, Papers of the War Department, Letters Received by the Office of the Secretary of War Relating to Indian Affairs, 1800-1823," Roll 1, Folder 2, Section J.)

[2] Jacobson, Daniel, "Koasati Culture Changes," PhD. Dissertation, Louisiana State University and Agriculture and Mechanical College, 1954. *Fulton Battise, Chief of the Tribal Council of the Alabama Coushatta Tribes and Ernest Sickey, Chairman of the Tribal Council of the Coushatta Tribe of Louisiana, and All Other Enrolled Members of the Alabama Coushatta Tribes of Texas and the Coushatta Tribe of Louisiana Respectively: Report (to Accompany H. Res. 69).* 1983. Report/ 98th Congress, 1st Session, House of Representatives: No. 98-412. Washington D.C., U.S. G.P.O., 1983.

[3] M. Boyd, "Expedition of Marcos Delgado 1686," The Florida Historical Quarterly 16:2-32. The relevant sections of Delgado's report read as follows:

> "And they replied to me that they were without any corn with which to make dry bread that in the entire year it had not rained in this province and having seen the lack of water in the road over which we passed since we were two days without securing water... On leaving here there is another place at one league distance called Qusate [NB:Coushatta] of an unknown nation which came a great distance from the north, fleeing from the English and the Chichumeco people which are the greatest conquerors *(politica)* among all the nations of Florida. This village has more than 500 warriors and is on the very bank of the river which goes to Mobila... Going from this village to the northwest bend, about 3 good leagues, is a place called Tubani also of the Qusate nation which came from the north because of persecution from the English and Chichumecos and another nation called chalaque [NB: Cherokee] which obliged them to flee from their lands in search of a place to settle, finally arriving at the margins of the river of Mobila. They have more than 200 warriors… Dated in the village of Tuave province of Cosate, Oct. 30, 1686. Marcos Delgado."

[4] In exchange for aid in subsistence, a critical factor for the poorly supplied French colony, and for military alliance, the French offered the gulf tribes protection from larger, more powerful neighboring

NAT2-3 (cont'd)

and cartographers identify Coushatta villages and hunting camps within the area of French, and later Spanish, colonial Louisiana, i.e., in modern day towns along the proposed project corridor.[5]

Although additional groups of Koasati had migrated to French Louisiana in 1766 at the conclusion of the French and Indian war,[6] the majority of Koasati people at that time still lived in villages located on the Coosa and Tallapoosa rivers near the present-day town of Coosada, Alabama (named for the Tribe). During this time period, the Coushatta were affiliated with the Creek Confederacy, though they maintained their cultural and linguistic independence.[7] In 1797 and 1804, two large group of Coushatta migrated to the Opelousas district in Spanish-controlled Louisiana, comprised of present-day Acadia, Evangeline, St. Landry, Allen, Jeff Davis and Calcasieu Parishes. Over the next fifty years, Coushatta villages were located throughout the PAPL proposed corridor in Louisiana and Texas, including in the Calcasieu River drainage basin, Sabine River basin, Lower Trinity River basin and Mermentau River Basin (including Bayou Nezpique). These villages were predominately located in what was then known as the Neutral Territory, on lands outside the control of French, Spanish, and American colonial governments.[8] In these villages the Coushatta people lived, occupied seasonal hunting camps,

---

tribes, which they were careful to identify. On May 28, 1701, the French expedition noted: "On the banks of the River there are 36 nations of Savages in different villages, including Alebamons and Conchaque" (a common French spelling for Koasati). Upon his return to France, Iberville later wrote about this encounter that "The Conchaques and Alibamons … villages may consist of four hundred families; the greater part have guns, are friends of the English and will shortly be ours." Conrad, G. R., ed., *The Historical Journal of the Establishment of the French in Louisiana, 1698-1723,* USL History Series Number 3, Lafayette, LA: 1971, pg. 60.

[5] For example, see Knight, V.J. Jr. and Adams, S. L, "A Voyage to the Mobile and Tomeh in 1700," *Ethnohistory,* xxviii (l 981), pp. 179-194; Conrad 1971, p.17; Swanton, J.R., *Early History of the Creek Indians and Their Neighbors* (Bureau of American Ethnology, Bulletin 73, 1922: 202); Crane, Verner W., *The Southern Frontier. 1670-1732* (Ann Arbor: University of Michigan Press), p. 78; Moore Alexander, *Nairne's Muskhogean Journals, The 1708 Expedition to the Mississippi River* (Jackson: University Press of Mississippi, 1988); McDowell, W.L. Jr., *Documents relating to Indian Affairs, in Colonial Records of South Carolina, 1754-1765* (Columbia: University of South Carolina Press,1970); Villiers du Terrage, Marc de.. *Documents Concernat l'histoiredes Indians de la region orientate de la Louisiana* (Paris: Au siege de la Societe, 1922).

[6] Precis du rensencement general de la Louisiana, [1766], Audencia de Santo Domingo, legajo 2585. Additionally, the January 1766 Census of the Opelousas Post in Louisiana territory included "Alibamons that had been established for one year." Both French and Spanish colonial governments referred to the Koasati, Pacana, Abihka, and Alabama collectively as "Alibamons."

[7] Langley, Linda, "The Tribal Identity of Alexander McGillivray: A Review of the Historical and Ethnographic Data," *Louisiana History: The Journal of the Louisiana Historical Association*, 46, no. 2 (Spring 2005): 231-239.

[8] In 1800 the Spanish government had identified two Coushatta villages on the eastern shores of the Sabine River (AGI, Cuba, legajo 217A, folio 560). Carter, C.E., *The Territorial Papers of the United States, Volume IX: The Territory of New Orleans, 1803-1812* (Washington, D.C.: Government Printing Office, 1940), p. 63. Support for the fact that the Caddo gave permission for the Koasati to settle on their ancestral lands at the Red River may be found in Morse, J., *A Report to the Secretary of War of the United States on Indian Affairs, 1822* (Michigan: Scholarly Press, reprinted in 1972),

NAT2-3 (cont'd)

raised their children, buried their dead, and worshipped. Oral histories and other primary documents collected by the Coushatta Tribe place these villages at various locations along the proposed project corridor, including the present-day towns of Opelousas, Basile, Elton, Indian Village, Hickory Flats, DeQuincy, Lake Charles and Sulphur Louisiana. The Coushatta Tribe has identified possible archaeological sites and traditional cultural properties throughout the Sabine, Calcasieu and Houston River valleys, along Sabine Lake, along the Creole Trail, and throughout Bayou Blue, Bayou Nezpique, and Bayou Cannes. The Coushatta Tribe's predictive model yields an extremely high likelihood that archaeological sites and other cultural resources exist along the entirety of the proposed route.[9]

After the conclusion of the American Civil War and Texas fight for statehood, the Coushattas returned to Louisiana to live in villages near the present-day town of Indian Village, near Kinder, Louisiana. From there they took advantage of existing laws to get homestead lands

---

p. 257. See also Flores, D.L., "The Red River Branch of the Alabama-Coushatta Indians: An Ethnohistory," *Southern Studies,* Spring, 1977, p. 58-60 and Sibley, John, "Historical Sketches of the Several Tribes in Louisiana South of the Arkansas River and Between the Mississippi and Rio Grande" in *American State Papers Relating to Indian Affairs, vol. IV,* p. 724. In June 1807 Indian agent for the Territory of Orleans John Sibley reported that the Coushatta "Were cutting up their corn at their village on the Sabine and were going to abandon it." Berlandier, J.L., *The Indians of Texas in 1830,* Edited and Introduced by John C. Ewers (Washington, D.C.: Smithsonian Institution Press, 1969), pp. 35, 124, 174, Plate 11. Berlandier noted: "Among other peoples, the wife becomes a comrade to her husband, willingly sharing his sorrows and his labors. Unfortunately, this attitude is to be seen only among the Conchates." *The Report of J. Francis Madero, Commissioner of the State of Coahuila and Texas,* in Fomento Archivo, Legajo no. 4, Exp. 10, reproduced from the Holdings of the Texas State Archives. The original report is in Spanish; this translation is found in Smither, H. "The Alabama Indians of Texas," *Southwestern Historical Quarterly* 36 (1932): 83-108. Throughout the Koasati are continuously referred to as a "pacifico" or friendly tribe. Winfrey, D.H., *Texas Indian Papers, Vol. 1* (Austin: Texas Printing Office, 1959).

[9] This predictive model includes factors used in locating Coushatta villages from A.D. 1500 on, including but not limited to high elevation, access to both fast-moving and slower moving waterways (often near river bends and islands), arable lands ideal for growing corn, defensible positions, and location in politically neutral Territories. Although the Coushatta's historic choices to live peacefully and diplomatically in the neutral territories between warring groups has made it more difficult to locate their "footprint" during the mid-19th century, noted Texas historian Howard N. Martin has identified the Tribe's movement during this time based on a review of over 3,000 Texas land grants. In the Handbook of Texas history, available at https://tshaonline.org/handbook/online/articles/exc05, Martin states:

> "The Coushatta Trace and the Atascosito Road were the most important roads through Austin's colony… The [Coushatta] trail extended from the Coushatta village on the Sabine River through the area of ten present Texas counties and merged with the Atascosito Road in Colorado County. From the Coushatta village on the Sabine River, one major trail led eastward to Opelousas, Louisiana, and another, the Coushatta-Nacogdoches Trace, extended northwestward to the post of Nacogdoches, where the Coushattas traded and received presents from the Spanish. The Coushatta Trace began at the village on the Sabine and proceeded through the area of present Newton and Jasper counties, using the same path as the Coushatta-Nacogdoches Trace."

NAT2-3 (cont'd) along Bayou Blue, three miles north of Elton, Louisiana, and ultimately the federal government took land into trust for the Tribe in this area.

The United States Government has long recognized and acknowledged the Coushatta Tribe's migrations, which create an historic nexus to the lands at issue in the PAPL application, most recently in the Congressional Record. *See* 164 Cong. Rec. S4502 (daily ed. June 27, 2018) (Statement of Senator Cassidy and Senator Kennedy) (acknowledging the Coushatta Tribe's history and its migration from Tennessee to Texas and back to Louisiana). The federal government's acknowledgment and recognition of Coushatta's migrations is centuries-long.[10]

In short, the Coushatta Tribe of Louisiana's well-established historical record clearly indicates that, for centuries, the Tribe settled along lands that are within the proposed project corridor.

II. ANTICIPATED NEGATIVE IMPACTS AND PROPOSED MITIGATION MEASURES

NAT2-4 Given the Coushatta Tribe of Louisiana's historic settlement along the proposed project corridor, project construction could potentially harm archaeological and/or culturally, historically and religiously significant sites and artifacts. Such negative impacts would irreversibly damage the Tribe's cultural heritage and the moral fabric of its community, potentially annihilating artifacts from and evidence of the Tribe's past and erasing significant sites and locations. The FERC has a federal trust responsibility to the Tribe to mitigate this potential harm to the greatest extent possible.

In order to mitigate these potentially devastating negative impacts, all ground-disturbing construction activities must be monitored by specially-trained Tribal cultural resource monitors tasked with visually monitoring all ground-disturbing construction activities to determine whether any cultural resources are present. The specialized training required of cultural resource monitors ensures their expertise and professionalism in identifying sites, artifacts and locations that are significant to tribes in general and to the Coushatta Tribe of Louisiana in particular. The presence of such monitors serves two purposes. First, it ensures that to the extent cultural resources are uncovered during construction, individuals trained to identify such resources will be on hand to identify them as such. Second, it ensures that when cultural resources are uncovered and disturbed, they can be documented, preserved and removed (assuming removal is possible and permissible under applicable law) in a timely manner and, upon documentation and removal, construction can resume quickly.

[10] *See, e.g.,* Report of Special Agent John Sibley to Congress (American State Papers, vol. 4:724, Washington, D.C.: Gales & Seaton, 1832) (describing Coushatta's migration from "Bayou Chicot, in Opelousas district" to the "river Sabine … on the east bank, where they now live…"); letter from Ernest Stevens, Acting Commissioner of the Bureau of Indian Affairs to Emery A. Johnson, Director of Indian Health Services, Jan. 5, 1971 (describing the Coushatta migration from Tennessee to Texas and Louisiana); memorandum dated June 13, 1973 from Raymond V. Butler, Acting Director, Office of Indian Services, to the Secretary of the Interior (describing the Coushatta people's migration through Louisiana to eastern Texas and back to Louisiana).

NAT2-4 See response to comment NAT2-2.

NAT2-4 (cont'd)

In addition to Tribal cultural resource monitors, the Coushatta Tribe of Louisiana THPO must be notified immediately upon discovery of cultural resources, and must be meaningfully involved in the process of identifying such resources, documenting them in situ, and determining their disposition.

Taken together, Tribal cultural resource monitoring during construction and the robust involvement of the CTOL THPO will ensure the documentation and preservation of Tribal cultural resources while enabling construction to proceed with as little disruption as possible.

As of this writing, the Coushatta Tribe of Louisiana is working with the applicant, PAPL, to reach an agreement on the terms of an Unanticipated Discoveries Plan reflecting the mitigation measures discussed here. In a meeting held on October 16th between FERC, CTOL and PAPL, PAPL agreed to file any such plan with FERC by the end of December. If a revised Unanticipated Discoveries Plan is filed by PAPL by the December deadline, as per FERC's direction, that plan will become binding on PAPL and should be referenced in the FEIS as proposed in Section III below. If, however, PAPL does not file such a plan as of the December deadline, CTOL will file its own proposed UDP, including Tribal cultural resource monitoring terms and designation of the Coushatta THPO in handling cultural resource finds. Accordingly, in the event CTOL and PAPL do not reach an agreement, CTOL hereby asks that FERC impose the CTOL plan, and full compliance with it, upon PAPL as a condition of any Certificate or other Authorization for the Louisiana Connector Project.

III. PROPOSED REVISIONS TO DRAFT EIS

In light of the above, we request that the DEIS be revised as follows. Insertions are marked by underline and deletions are marked by ~~strikethrough~~.

Proposed Revisions, Executive Summary:

NAT2-5

Page ES-4. The last paragraph on this page should include the following sentence:

In addition, on June 13, 2017, we attended a meeting hosted by the Coushatta Tribe of Louisiana to discuss the project and the FERC process. During this meeting the Coushatta THPO noted that the project raised concerns relating to cultural resources which required further study and analysis. Representatives from PAPL also attended this meeting. On October 16, 2018, we held a government-to-government meeting with the Coushatta Tribe of Louisiana. At that meeting we discussed, among other things, the project's anticipated negative impacts on Tribal cultural resources and mitigation measures necessary to address such impacts. Also on October 16, 2018, we met with the applicant and the Tribe to address cultural resource impacts and mitigation.

NAT2-5 The Executive Summary of the final EIS has been updated to further describe our meetings with the Coushatta Tribe of Louisiana.

NAT2-6 **Page ES-5.** Under the heading "PROJECT IMPACTS", in the third paragraph which begins with the words "Construction of the liquefaction Project would result in impacts on ….", add the following:

> "Construction of the Louisiana Connector Project would affect about 2,807 acres of agricultural land, open land, forest land, silviculture land, rangeland, residential land, industrial/commercial land, and open water, of which about 771 acres would be permanently impacted. It would also affect lands to which the Coushatta Tribe of Louisiana has historical, cultural and religious ties, and any Tribal cultural resources located along the project corridor. About 14.7 miles, or 43 percent…"

NAT2-7 **Page ES-5.** The last paragraph under the heading "PROJECT IMPACTS" should read:

> "Based on our analysis, scoping, and agency consultations, the major issues associated with the Projects are impacts on wetlands, visual resources, cultural resources, air quality, noise, and cumulative impacts."

NAT2-8 **Page ES-6.** The following section should be included immediately after the section entitled "VISUAL RESOURCES":

> "CULTURAL RESOURCES
>
> The Louisiana Connector Project corridor is located squarely within lands to which the Coushatta Tribe of Louisiana has extensive historical, cultural and religious ties. The Coushatta people are known to have migrated, temporarily settled and/or lived in and around the project footprint.
>
> A comprehensive account of the Coushatta Tribe of Louisiana's history and nexus to the land at issue is included at Appendix [number]. In summary, the Coushatta Tribe of Louisiana initially moved from their villages in the Tennessee River area and settled in villages in the Guntersville Basin area of what is now northern Alabama, then moved south to join the political organization that became known as the Creek Confederacy. In 1797 the majority of the Coushatta people migrated from Alabama to what was then Spain's Opelousas District (a large Spanish-governed territory prior to the Louisiana Purchase), comprised of present-day Acadia, Evangeline, St. Landry, Allen, Jeff Davis and Calcasieu Parishes, which are squarely within the PAPL project corridor. From there, the Coushattas migrated and settled in several additional locations along the proposed PAPL project corridor, including the Calcasieu River Drainage Basin, Sabine River Basin, Lower Trinity River Basin, and Mermentau River Basin (including Bayou Nezpique). They lived in multiple villages throughout this area, occupied seasonal hunting camps, raised their children, buried their dead, and worshipped in numerous places along this route. The Coushatta Tribe has identified archaeological sites and traditional cultural properties throughout the Sabine, Calcasieu and Houston River

NAT2-6 The Executive Summary is intended to provide an overview of the Projects and does not specifically acknowledge landowners.

NAT2-7 Existing cultural resources and the Projects' potential impacts on cultural resources are addressed in section 4.10 of the final EIS.

NAT2-8 The recommended language has been added to section 4.10.3.2 of the final EIS.

NAT2-8 (cont'd)

valleys, along Sabine Lake, along the Creole Trail, and throughout Bayou Blue, Bayou Nezpique, and Bayou Cannes. The Coushatta people arrived at their current location, in and around the present-day town of Elton, Louisiana, in 1880.

In light of their centuries-long settlement of lands in and around the PAPL project corridor, there exists a significant and strong likelihood that project construction would disturb and irreversibly destroy Tribal cultural resources."

NAT2-9

Page ES-9. If PAPL files a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to issuance of the FEIS, the bullet-point list on page ES-9 should include the following:

- PAPL's proposed Tribal cultural resources monitoring program in its revised Unanticipated Discoveries Plan would adequately address impacts on Tribal cultural resources.

If, however, PAPL *does not file* a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to issuance of the FEIS, the bullet-point list on page ES-9 should include the following:

- The FERC's condition relating to Tribal cultural resource monitoring during construction of the Louisiana Connector Project, presented in section 5.2 of the EIS, would require and ensure that that appropriate mitigation measures adequately address impacts on Tribal cultural resources.

In addition, if PAPL *does not file* a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to issuance of the FEIS, the final paragraph on page ES-9 should state:

"In addition, we developed site-specific mitigation measures that PALNG and PAPL would implement to further reduce the environmental impacts, including impacts to Tribal cultural resources, that would otherwise result from construction and operation of the projects…"

Proposed Revisions, Section 1:

NAT2-10

Page 1-11. The following text should be added at the end of section 1.3.1.2:

"On June 13, 2017, we attended a meeting hosted by the Coushatta Tribe of Louisiana to discuss the project and FERC process with representatives from PAPL. At that meeting the Coushatta THPO provided comment regarding the Coushatta Tribe's concerns relating to Tribal cultural resources throughout the project corridor.

On October 16, 2018 we held a government-to-government meeting with the Coushatta Tribal Council, the governing body of the Coushatta Tribe of Louisiana. That meeting

NAT2-9 The recommended language has been added to the Conclusions section of the Executive Summary in the final EIS.

NAT2-10 The recommended language has been added to section 1.3.1.2 of the final EIS.

NAT2-10 (cont'd)

focused primarily on the Tribe's significant historical, archaeological, cultural and religious nexus to the entire pipeline corridor, on the significant Tribal interests that could be negatively impacted during pipeline construction, and on ways such impacts may be mitigated.

Also on October 16, 2018, we met with representatives of PAPL together with Tribal representatives to discuss cultural resource impacts and mitigation issues."

NAT2-11

Page 1-19. Table 1.5-3 indicates that a request for a right of way grant was filed with the Bureau of Indian Affairs as of "June 2018." As of this writing BIA has informed us that no such request has been filed.

In addition, Table 1.5-3 fails to list the Tribal permits PAPL is required to obtain as a condition of construction of that portion of the Louisiana Connector Project slated to traverse the Coushatta Tribe of Louisiana's federal Indian trust land, or even to mention that such permits are required. The Table should, at the very least, indicate that Tribal permits are required prior to construction on Tribal lands.

Proposed Revisions, Section 2:

NAT2-12

Page 2-28. Section 2.4 lists additional plans and measures PAPL would use to avoid or reduce various project impacts. One of the plans listed is the "Unanticipated Discoveries Plan." This reference should be revised to indicate that it refers to that version of the plan that includes Tribal cultural resource monitoring by the Coushatta Tribe. The reference should state:

- *Unanticipated Discoveries Plan (Revised [date])*

To the extent PAPL files a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the bullet point list on page 2-28 should reference that plan as noted above. If, however, PAPL does not file a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the Coushatta Tribe of Louisiana reserves the right to present such a plan and asks that the FEIS recommend that such plan be included as a condition of PAPL's Certificate or Authorization.

NAT2-13

Page 2-48. Section 2.5.1 addresses compliance monitoring. This section addresses the EI's general responsibilities during construction, but does not specifically reference the EI's involvement in cultural resource monitoring or in ensuring the cultural resource monitoring program is properly implemented. Given the sensitivity relating to cultural resource monitoring, this aspect of the EI's work should be specifically called out. Accordingly, the text in the third paragraph on page 2-48 should be revised as follows:

NAT2-11 Table 1.5-3, which lists the environmental permits and authorizations needed for the Louisiana Connector Project, has been updated to acknowledge that tribal permits are required and pending.

NAT2-12 PAPL field a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

NAT2-13 The EI is responsible for ensuring that the environmental obligations of the project are implemented, which would include those described in the *Unanticipated Discoveries Plan*.

NAT2-13 (cont'd)

"The EI's responsibilities include ensuring the environmental obligations, conditions, and other requirements of permits and authorizations for the Projects are met and that the Unanticipated Discoveries Plan, including its Tribal cultural resource monitoring requirements, are implemented. PALNG's and PAPL's EI's would inspect all construction and mitigation activities to ensure environmental compliance. EI's ~~may~~ would also oversee other cultural resource and/or biological monitors that monitor and evaluate construction impacts on Tribal cultural and other resources as specified in this EIS.

Proposed Revisions, Section 4:

NAT2-14

Page 4-50. Section 4.4, addressing wetlands, does not address the wetlands located on the Coushatta Tribe of Louisiana's federal Indian trust lands because the survey results for those lands had not been filed when the DEIS issued. That survey has been conducted and finalized, and its conclusions regarding wetlands (and other environmental issues) should be included in the Final EIS.

NAT2-15

Pages 4-212, 4-213. Section 4.10.1 addresses cultural resources surveys. The paragraph that begins at the bottom of page 4-212 and continues on page 4-213 describes a Phase I Cultural Resources Survey report conducted for the Louisiana Connector Project and states that the report was provided "to the FERC and Louisiana SHPO."

Importantly, that report was *not* provided to the Coushatta Tribe of Louisiana or its Tribal Historic Preservation Officer prior to its finalization. Further, the report was prepared without any substantive consultation with the Coushatta Tribe of Louisiana's federally-recognized Historic Preservation Officer. Thus, despite CTOL's clear historic nexus to the land at issue in the report, CTOL did not have an opportunity to comment on or contribute to the report or supplement and correct its findings and omissions. Further, even after the report was submitted to the FERC, at which point CTOL became aware of its existence, CTOL asked for a copy of the report but was not given a copy until *after* the draft EIS had issued.

As a result, the Draft EIS was based on a Phase I Cultural Resources report that was fatally flawed: It was focused on lands of tremendous significance to the Coushatta Tribe of Louisiana but was written without substantive consultation with that Tribe, and it completely failed to address the Tribe's historic, cultural and religious interests in and nexus to the lands. In fact, while the report appears to have pulled some paltry and largely insignificant facts about the Coushatta from a tribal website, it does not reflect any significant research on the Tribe or its history or its nexus to the lands at issue in the report. And, more importantly, it fails to discuss CTOL's centuries-long nexus to the land it purported to study. The Coushatta Tribe of Louisiana will file comments on, and supplements to, that report under separate cover.

The text at the very top of page 4-213 should be supplemented as follows:

NAT2-14 This information has not yet been filed with FERC. However, PAPL has filed an application with the USACE, which has jurisdictional authority pursuant to section 404 of the CWA (33 USC 1344) over the discharge of dredged or fill material into WOUS. Section 4.4.2.2 of the final EIS has been updated to note that, based on desktop wetland information provided to FERC and listed in appendix K, the Louisiana Connector Project would cross about 2,893 feet of wetlands on Coushatta tribal trust lands, affecting about 11.6 acres during construction (1.4 acres of PEM wetland and 10.2 acres of PFO wetland) and 5.5 acres (PFO wetland) during operation of the project.

NAT2-15 Section 4.10.1.2 of the final EIS has been updated to acknowledge the status of the cultural resources surveys on Coushatta tribal trust lands.

NAT2-15 (cont'd)

"PAPL provided the resulting Phase I Cultural Resources Survey report to the FERC and Louisiana SHPO. After issuance of the DEIS, PAPL also provided a copy of the resulting report to the Coushatta Tribe of Louisiana. Upon reviewing the report the Coushatta Tribe of Louisiana identified significant omissions and inaccuracies in the report's account of Tribal history relating to the project corridor and supplemented the report in a separate filing."

NAT2-16

Page 4-214. Section 4.10.2 addresses PAPL's Unanticipated Discoveries Plan. This section should be revised as follows:

If PAPL files a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the DEIS, the section should state:

"…We requested revisions to the plan. PAPL provided a revised plan which we ~~find~~ initially thought may be acceptable, but which has since proven to be insufficient because it failed to provide for sufficient involvement of the Coushatta Tribe of Louisiana THPO and to require Tribal cultural resource monitoring during ground-disturbing construction activities. ~~In a letter dated December 5, 2017, the Louisiana SHPO concurred with the plan. The Texas SHPO has not commented on the plan.~~ PAPL subsequently provided a further-revised plan, which includes Tribal cultural resource monitoring and adequate involvement of the Coushatta THPO. We find the further revised plan (dated [date]) acceptable. The Coushatta Tribe of Louisiana THPO concurred with the plan."

If PAPL *does not file* a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the DEIS, the section should state:

"…We requested revisions to the plan. PAPL provided a revised plan which we ~~find~~ initially found acceptable, but which has since proven to be insufficient because it failed to provide for sufficient involvement of the Coushatta Tribe of Louisiana THPO and to require Tribal cultural resource monitoring during ground-disturbing construction activities. ~~In a letter dated December 5, 2017, the Louisiana SHPO concurred with the plan. The Texas SHPO has not commented on the plan.~~ We advised PAPL that it should work with the Coushatta Tribe of Louisiana to revise its plan to adequately mitigate anticipated negative impacts on Tribal cultural resources. PAPL failed to revise its plan as required. The Coushatta Tribe of Louisiana submitted a proposed plan that adequately addresses all cultural resource concerns, and we find that plan acceptable. Accordingly, we recommend that the Unanticipated Discoveries Plan attached at Appendix [number] be included as a condition of any Certificate or Authorization issued to PAPL for the Louisiana Connector Project."

NAT2-17

Page 4-215. Section 4.10.3.2 addresses Native American Consultation on the Louisiana Connector Project. The section should be updated as follows, to address the events that occurred

NAT2-16 Section 4.10.2 of the final EIS has been updated to acknowledge the status of the *Unanticipated Discoveries Plan*. PAPL filed a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

NAT2-17 Section 4.10.3.2 of the final EIS has been updated to address the government-to-government consultation and revisions to the *Unanticipated Discoveries Plan*.

NAT2-17 (cont'd)

after the DEIS issued. Starting with the second paragraph on page 4-215, the text should be revised as follows:

> "We attended a meeting on June 13, 2017, hosted by the Coushatta Tribe of Louisiana and PAPL to discuss the status of cultural resources surveys and to offer the Tribe an opportunity to identify traditional cultural properties or provide comments about the Louisiana Connector Project. The Coushatta Tribe of Louisiana indicated that given its history of having lived along the entire project corridor for centuries, it had significant cultural resource concerns with the project as a whole. The CTOL requested, as a first step, that a traditional cultural properties survey be performed.

The following paragraph, commencing with the words "PAPL separately contacted seven tribes," should similarly be revised to include later developments:

> "…PAPL indicated that it employed Coushatta tribal members to participate in surveys on tribal lands, and that it was willing to employ monitors on Coushatta lands. ~~No additional responses have been received~~.
>
> On June 21, 2018 the Coushatta Tribe of Louisiana notified the FERC in writing that it sought to conduct government-to-government consultations to discuss the Louisiana Connector Project, and specifically to discuss the Project's anticipated negative impacts on Tribal cultural resources. A government-to-government meeting was scheduled for October 16, 2018, as was a three-way meeting, between FERC, the Tribe, and PAPL, to discuss cultural resources issues. On September 7, 2018 Coushatta filed a notice again raising concerns regarding Tribal cultural resources, noting that the DEIS should address those concerns, and asking that the FERC refrain from issuing the DEIS until after the October 16th meetings. The DEIS issued on September 28, 2018.
>
> On October 16, 2018, FERC staff met with the Coushatta Tribe of Louisiana on a government-to-government basis.
>
> Also on October 16, 2018, FERC staff met with representatives of both PAPL and the Coushatta Tribe of Louisiana to discuss the project's potential negative impacts on Tribal cultural resources and on ways to mitigate those impacts. FERC staff advised PAPL that it should work with the Coushatta Tribe of Louisiana to revise its Unanticipated Discoveries Plan to adequately mitigate anticipated negative impacts on Coushatta Tribal cultural resources.
>
> On [date] the Coushatta Tribe of Louisiana filed comments supplementing the previously-filed Phase I Cultural Resources survey which had failed to include relevant historical, cultural and religious information about the Tribe's activity on the project corridor.
>
> On [date] [PAPL filed a revised Unanticipated Discoveries Plan, to which the Coushatta Tribe concurred, that included a Tribal cultural resource monitoring program and adequate notification of the Coushatta THPO in the event of unanticipated discoveries.] *Alternatively*:[Although we advised PAPL that it should work with the Coushatta Tribe

NAT2-17 (cont'd)

of Louisiana to revise its plan to adequately mitigate anticipated negative impacts on Tribal cultural resources. PAPL failed to revise its plan as required. The Coushatta Tribe of Louisiana submitted a proposed plan that adequately addresses all cultural resource concerns, and we find that plan acceptable. Accordingly, we recommend that the Unanticipated Discoveries Plan attached at Appendix [number] be included as a condition of any Certificate or Authorization issued to PAPL for the Louisiana Connector Project.]"

NAT2-18

Page 4-216. The first paragraph in section 4.10.4.2 should be revised as follows:

"The process of complying with section 106 of the NHPA has not been completed for the Texas Connector and Louisiana Connector Projects. PAPL has not completed cultural resources surveys and NHRP evaluations, and consultation with the Texas and Louisiana SHPO's and the Coushatta Tribe of Louisiana THPO is not yet complete."

Further, subsection (a) of the bold-texted recommendation on page 4-216 should be revised as follows:

"a. PAPL files with the Secretary all outstanding survey reports, evaluation reports, special studies, and any required avoidance/treatment plans, and the Texas and Louisiana SHPO's and the Coushatta Tribe of Louisiana THPO's comments (as applicable) on these."

NAT2-19

Page 4-305. Section 4.12.8 includes an analysis of pipeline safety standards. Given that part of the project is slated for construction on the Coushatta Tribe of Louisiana's federal Indian trust lands, over which the Coushatta Tribe of Louisiana has and exercises jurisdiction, the FERC staff's recommendations should include a requirement that the Coushatta Tribe of Louisiana receive the same notifications, and be included in developing the same plans, as other jurisdictions through whose land the pipeline will run.

Thus, for example the final paragraph on page 4-305 discusses a liaison program and meetings with public authorities. The FEIS should explicitly require that CTOL officials be included in the liaison program and consulted in such meetings. Similarly, the first paragraph on page 4-306 discusses the creation of a list of relevant contacts. Coushatta Tribe of Louisiana Tribal officials should be included in that list, including the Tribal Chairperson, Tribal Fire Department, Tribal Police Department, Tribal EMS personnel, and all other relevant Tribal officials and departments. Accordingly, pages 4-305 to 4-306 should be revised to include notification of, and consultation with, CTOL Tribal officials.

NAT2-20

Page 4-341. Section 4.13 deals with cumulative impacts, and section 4.13.2.11 deals specifically with cumulative impacts on cultural resources. The second paragraph of section 4.13.2.11 indicates that PAPL consulted with the Texas and Louisiana SHPOs in regard to the impact of

NAT2-18 Section 4.10.4.2 of the final EIS has been updated to include the recommended language.

NAT2-19 We anticipate that this would include tribal resources (e.g., police, fire, emergency services), but this requirement is under the DOT's jurisdiction, not FERC's; thus, the DOT is the agency responsible for overseeing and enforcing the proper safety notifications. We encourage the Coushatta Tribe of Louisiana to contact PAPL to request this meeting and training.

NAT2-20 Section 4.13.2.11 of the final EIS acknowledges PAPL's development and implementation of a tribal monitoring plan. PAPL filed a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

NAT2-20 (cont'd) pipeline projects. However, the Coushatta THPO was not consulted prior to issuance of the DEIS.

As indicated above, the Coushatta Tribe of Louisiana has historic, cultural and religious ties to the entire Louisiana Connector Project construction corridor. Any projects on or crossing that corridor increase the chances of disturbance and destruction of Tribal cultural resources. The greater the number of projects in the affected area, the greater the cumulative negative impacts of such projects on Tribal resources.

Such cumulative impacts would be significantly reduced by the presence of Tribal cultural resource monitors during any ground-disturbing activities performed in the course of construction. Such monitoring should be required either as a part of a filed Unanticipated Discoveries Plan or as a condition of any Certificate or Authorization.

Proposed Revisions, Section 5:

NAT2-21 **Page 5-7.** Section 5.1 includes a summary of the EIS's environmental analysis. Section 5.1.3.3, discussing impacts to wetlands, should be revised to include the impacts to Tribal wetlands described in the phase I environmental survey conducted on the Coushatta Tribe of Louisiana's federal Indian trust land.

NAT2-22 **Page 5-21.** Section 5.1.11 includes a summary of conclusions relating to cultural resources. The section should be revised to address issues such as the Coushatta Tribe of Louisiana's historic, cultural and religious nexus to the Louisiana Connector Project corridor, the requirement that the Coushatta THPO be notified and consulted with regard to all cultural resource issues, and the requirement that a revised UDP, approved by the Coushatta THPO, include a Tribal cultural resource monitoring plan and timely and adequate notification of the Coushatta THPO in the event of an unanticipated discovery.

The second-to-last paragraph on page 5-21 should be revised in one of two ways. If PAPL files a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the paragraph should state:

> "PALNG and PAPL provided FERC and ~~each~~ the Texas SHPO an unanticipated discoveries plan for Texas ~~and Louisiana~~ which would be implemented if cultural resources or human remains are encountered during construction of the Project~~s~~. The plan also provides for the notification of Native American tribes in the event of any discovery. ~~In a letter dated December 15, 2017, the Louisiana SHPO concurred with the plan. The Texas SHPO has not commented on the plan.~~
>
> As to the Louisiana Connector Project, PAPL filed a revised Unanticipated Discoveries Plan on [date], which includes Tribal cultural resource monitoring and adequate involvement of the Coushatta THPO. We find the further revised plan (dated [date]) acceptable. The Coushatta Tribe of Louisiana THPO concurred with the plan."

NAT2-21 Section 4.4.2.2 of the final EIS has been updated to indicate that wetlands would be impacted on tribal lands. Section 5 is meant to provide a general overview of impacts and not the specific analysis contained in section 4.

NAT2-22 Section 5.1.11 of the final EIS has been updated to acknowledge that PAPL filed a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

NAT2-22 (cont'd)

If PAPL *does not file* a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the section should state:

> "PALNG and PAPL provided FERC and ~~each~~ the Texas SHPO an unanticipated discoveries plan for Texas ~~and Louisiana~~ which would be implemented if cultural resources or human remains are encountered during construction of the Project~~s~~. The plan also provides for the notification of Native American tribes in the event of any discovery. ~~In a letter dated December 15, 2017, the Louisiana SHPO concurred with the plan. The Texas SHPO has not commented on the plan.~~
>
> As to the Louisiana Connector Project, although we advised PAPL of the need to work with the Coushatta Tribe of Louisiana to file a plan that adequately mitigates anticipated negative impacts on CTOL Tribal cultural resources, PAPL failed to submit a revised plan as required. The Coushatta Tribe of Louisiana submitted a proposed plan that adequately addresses all cultural resource concerns, and we find that plan acceptable. Accordingly, we recommend that the Unanticipated Discoveries Plan attached at Appendix [number] be included as a condition of any Certificate or Authorization issued to PAPL for the Louisiana Connector Project."

NAT2-23

Page 5-22. The first paragraph on page 5-22 should be revised as follows:

> "..which was provided on September 12, 2017. On June 13, 2017, at a meeting with FERC and PAPL hosted by the Coushatta Tribe of Louisiana, the Coushatta THPO provided comment regarding the Coushatta Tribe's concerns relating to Tribal cultural resources throughout the project corridor. In a June 21, 2018 letter, the Coushatta Tribe of Louisiana again raised concerns regarding the project's anticipated impacts on cultural resources and requested government-to-government consultation and a meeting to discuss the project's anticipated negative impacts on Tribal cultural resources and mitigation thereof.
>
> On October 16, 2018 we held a government-to-government meeting with the Coushatta Tribal Council, focusing primarily on the Tribe's significant historical, archaeological, cultural and religious nexus to the entire pipeline corridor, on the significant Tribal interests that could be negatively impacted during pipeline construction, and on ways such impacts may be mitigated. Also on October 16, 2018, we met with representatives of PAPL together with Tribal representatives to discuss cultural resource impacts and mitigation issues. ~~No other responses have been received by FERC to date regarding the Louisiana Connector Project. In addition, we communicated with the Coushatta Tribe of Louisiana in June and August 2018, and have arranged to meet with the Tribe in October 2018.~~

If PAPL files a revised Unanticipated Discoveries Plan that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the next sentence should state:

NAT2-23 Section 5.1.11 of the final EIS has been updated to acknowledge the status of consultations with the Coushatta Tribe of Louisiana.

NAT2-23 (cont'd)

On [date] PAPL filed a revised Unanticipated Discoveries Plan, approved by the Coushatta THPO, that incorporates a Tribal cultural monitoring program intended to address the project's negative impacts on Tribal cultural resources.]

Alternatively, if PAPL does not file a revised Unanticipated Discoveries Plan, that includes an acceptable Tribal cultural resource monitoring program prior to finalization of the FEIS, the next sentence should state:

On [date] the Coushatta Tribe of Louisiana filed a revised Unanticipated Discoveries Plan that incorporates a Tribal cultural monitoring program intended to address the project's negative impacts on Tribal cultural resources. We find that plan, attached hereto at Appendix [number], acceptable and recommend that it be incorporated as a condition of any Certificate or Authorization issued to PAPL for the Louisiana Connector Project."

The next paragraph, at the end of section 5.1.11, should be revised as follows:

"Because the process of complying with section 106 of the NHPA has not been completed for the Projects, we are recommending that prior to construction, PALNG and PAPL file all outstanding information, survey reports, evaluation reports, special studies, and plans, and the SHPO's and Coushatta THPO's comments on these."

NAT2-24

Page 5-27. Section 5.2 of the DEIS, commencing at page 5-26, includes FERC staff's recommended mitigation measures. Recommendation number 4, on page 5-27, should be revised as follows:

"PALNG and PAPL shall file affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority, will undergo training with regard to Tribal cultural resources, and have been or will be trained on the implementation of the environmental mitigation measures (including, without limitation, Tribal cultural resource monitoring and THPO notification) appropriate to their jobs **before** becoming involved with construction and restoration activities."

NAT2-25

Pages 5-28, 5-29. Recommendation number 7, which begins on page 5-27 and continues on page 5-28, should be revised as follows:

"c. the number of EIs assigned per spread and how PALNG and PAPL will ensure that sufficient personnel are available, including Tribal cultural monitors, to implement the environmental mitigation (including cultural resource mitigation)."

Recommendation number 8 should be revised at subsections b and e to provide:

"b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures including the cultural resource mitigation measures, required in the contract (see condition 7) and any other authorizing document.

NAT2-24 PAPL field a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005). Section 3.1 of PAPL's revised *Unanticipated Discoveries Plan* describes the training, orientation, and responsibilities of construction personnel. For example, the EI will devote adequate time to training Project Personnel on identifying the types of Indian tribal archaeological resources they may encounter during Ground-Disturbing Activities, and training will occur as part of the Project's pre-construction on-site training program for PAPL and/or contractor supervisors and inspectors.

NAT2-25 PAPL field a revised *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)* developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005). Section 3.1.2 of PAPL's revised *Unanticipated Discoveries Plan* describes the number of tribal cultural resources monitors (TCRM) that will be used during construction. For example, TCRMs will be present during Ground-Disturbing Activities; to the extent the pipeline route is divided into several concurrent spreads, not less than two TCRMs will perform monitoring activities at each spread; and Coushatta Historic Preservation Office and the EI will work together to determine how many additional TCRMs will be used in additional locations.

The recommended modifications to Environmental Recommendations 8.b and 8.e (with the exception of adding the Coushatta Tribe of Louisiana for Tribal Trust Lands) have not been made as they are already included as part of the broader standard condition.

NAT2-25 (cont'd)

e. responsible for documenting compliance with the environmental conditions (including cultural resource conditions) of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, Coushatta Tribe of Louisiana Tribal, or local agencies; and"

NAT2-26

Page 5-29. Condition number 9 should be revised to include two additional status reports, as follows:

"a listing of all Tribal cultural resources encountered;

a description of actions taken pursuant to any discovery of cultural resources;"

NAT2-27

Page 5-32. Condition number 26, subsection (a), should be revised as follows:

"a. PAPL files with the Secretary all outstanding survey reports, evaluation reports, special studies, and any required avoidance/treatment plans, and the Texas and Louisiana SHPOs' and the Coushatta Tribe of Louisiana THPO's comments (as applicable) on these;"

In addition, if PAPL fails to file a revised Unanticipated Discoveries plan with more robust THPO involvement and Tribal cultural resource monitoring, acceptable to the CTOL THPO, prior to issuance of the FEIS, a further condition should be added to address cultural resource mitigation. One of the following two alternatives should be incorporated after recommendation number 26:

Alternative A:

"PAPL shall **not begin any construction activities** relating to the Louisiana Connector Project unless and until it submits a revised Unanticipated Discoveries Plan, acceptable to the Coushatta Tribe of Louisiana THPO, that provides for more robust involvement of the CTOL THPO upon discovery of cultural resources and that requires Tribal cultural resource monitoring at each construction location."

Alternative B:

"PAPL shall be required to fully implement the Unanticipated Discoveries Plan recommended by FERC staff and attached hereto at Appendix [number]." *If alternative B is adopted, FERC staff should adopt and attach as an appendix to the FEIS the Unanticipated Discoveries Plan submitted by the Coushatta Tribe of Louisiana.*

IV. CONCLUSION

Given the proximity of PAPL's proposed project to significant known Tribal locations, project construction could potentially harm archaeological and/or culturally, historically and

NAT2-26 If something is found, PAPL would report it to the appropriate personnel in accordance with the *Unanticipated Discoveries Plan*; however, these status reports are not the appropriate venue because they are public documents.

NAT2-27 This condition has been revised to reflect the recommended update. PAPL has agreed to adopt the changes requested by the tribe in its *Unanticipated Discoveries Plan (For Project Facilities within the State of Louisiana)*, developed with the Coushatta Tribe of Louisiana on January 15, 2019 (FERC Accession No. 20190116-5005).

religiously significant sites and artifacts. Such negative impacts would irreversibly devastate Tribal mores and cultural heritage by potentially annihilating artifacts from and evidence of the Tribe's past. The United States' trust responsibility to the Coushatta Tribe requires the government generally, and the Federal Energy Regulatory Commission specifically, to protect the Coushatta Tribe of Louisiana's cultural, historic and religious interests in the lands underlying the PAPL project corridor. And federal law similarly requires protection of these interests and of the cultural, historical and religious sites and artifacts to which they are tied. *See* American Indian Religious Freedom Act of 1978; Archaeological Resources Protection Act of 1979; National Environmental Policy Act of 1969; National Historic Preservation Act of 1966; and Native American Graves Protection and Repatriation Act of 1990. Adopting the changes proposed above would enable the FERC to fulfil its trust obligations toward the Coushatta Tribe of Louisiana. Accordingly, the Tribe respectfully requests that the FERC implement the changes noted above.

The Coushatta Tribe of Louisiana appreciates the opportunity to provide comment on the DEIS.

If you have any questions or require further clarification, feel free to contact me.

Sincerely,

Linda Langley

Linda Langley, Ph.D.
Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana

KOWASSAATON NAATHIIHILKAS—LET US SPEAK KOASATI
337-584-1560 337-584-1616 (FAX) PO BOX 10 ELTON, LA 70532

JD Morris
Director, Permitting & Compliance
2925 Briarpark Drive, Suite 900
Houston, TX 77042
713-298-5479
jmorris@sempraglobal.com

November 19, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Port Arthur LNG, LLC, Docket No. CP17-20-000
Port Arthur Pipeline, LLC, Docket No. CP17-21-000
Port Arthur Pipeline, LLC, Docket No. CP18-7-000

Dear Ms. Bose:

On November 29, 2016, Port Arthur LNG, LLC and PALNG Common Facilities Company, LLC (collectively known as PALNG) along with Port Arthur Pipeline, LLC (PAPL) submitted applications under Section 3(a) and Section 7(c) of the Natural Gas Act for the construction and operation of a new LNG liquefaction facility (PALNG Project) and for the construction and operation of a new feed gas pipeline (PAPL Texas Connector or PAPTC) near Port Arthur, Texas. On October 16, 2017, PAPL submitted an application under Section 7(c) for the construction and operation of an additional feed gas pipeline (PAPL Louisiana Connector or PAPLC). In today's submittal, PALNG and PAPL are providing additional information related to these projects, comments to the Draft Environmental Impact Statement (EIS) and responses to Draft EIS conditions.

Attachment 1 – *Supplemental Information*

Attachment 2 – *Comments on Draft EIS*

Attachment 3 – *Responses to Draft EIS Conditions*

Please note that some of the material filed herein contains Privileged and Confidential Information ("PRIV"). Portions of Attachment 1 include documents that contain proprietary information and/or PRIV. Pursuant to Section 388.112 of the Commission's regulations, Port Arthur LNG requests that the Commission treat this information as privileged material. The information included in these attachments meets the Commission's definition of privileged material and treatment of this information as privileged is therefore warranted. Port Arthur LNG is submitting a public version of this filing, with the privileged material redacted. The privileged material has been labeled accordingly and is not to be released. Port Arthur LNG previously filed a proposed form of Protective Order and Non-Disclosure Certificate in this proceeding on November 29, 2016.

For questions concerning this submittal please contact Jim Thompson at 832-284-5685. Thank you for your attention to these matters.

Respectfully submitted,

/s/JD Morris
JD Morris
Director, Permitting & Compliance
On behalf of PALNG and PAPL

cc: Jim Thompson
Jerrod Harrison
Bill Lansinger

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Houston, TX, this 19th day of November 2018.

/s/ Heather K. Dading

Heather K. Dading
2925 Briarpark Drive, Suite 900
Houston, TX 77042
(832) 460.6589
HDading@SempraGlobal.com

Port Arthur Liquefaction Project
Port Arthur Pipeline Texas Project
Port Arthur Pipeline Louisiana Project

Attachment 1
Supplemental Information

APP1-1

1. Updates to the previously submitted permitting summary tables, PAPTC - Table 1.4-1, PALNG - Table 1.7-1 and PAPLC - Table 1.6-1 are provided herein.

APP1-2

2. A Louisiana Division of Archaeology Report No. 5727-1 Concurrence Letter for the "*Phase I Cultural Resources Investigation of a Portion of the Proposed Port Arthur Pipeline Louisiana Connector within Coushatta Tribe of Louisiana Trust Land in Allen Parish, Louisiana,"* is provided herein. The subject report is being provided as Privileged and Confidential Information and has been removed from the public version. In addition, there are two emails from Dr. Linda Langley, Coushatta Tribal Historic Preservation Officer, indicating approval of the report.

APP1-1 Section 1.5 of the final EIS has been updated to reflect the current status of permits, approvals, and consultations.

APP1-2 Comments noted. The EIS text has been updated with this information.

Port Arthur Pipeline

Port Arthur Pipeline Texas Connector Project

APP1-3

Table 1.4-1
Permits and Clearances Required for the Port Arthur Pipeline Project

Agency	Permit/Authorization	Anticipated Filing Date	Anticipated Receipt Date	Status
Federal				
Federal Energy Regulatory Commission (FERC)	Certificate of Public Convenience and Necessity (CPCN)	November 2016	February 2019	Submitted
U. S. Army Corps of Engineers (USACE)	Section 404/10 Permit*	January/November 2017	May 2019	Submitted Supplemental Application 11/16/2017
U.S. Fish and Wildlife Service (USFWS)	Section 7 Consultation	November 2016	June 2018	Complete
NOAA Fisheries	Section 7 Consultation	November 2016	August 2018	Ongoing
Environmental Protection Agency (EPA)	National Pollutant Discharge Elimination System (NPDES) Hydrostatic Test Water Discharge Permit**	December 2020	July 2021	Pending
State				
Texas Commission on Environmental Quality (TCEQ)	Standard Permit for Oil & Gas Facilities (Air Quality)	July 2019	December 2019	Pending
Railroad Commission of Texas (RRC)	Hydrostatic Test Water Discharge	December 2020	July 2021	Pending
	401 Certification*	January/November 2017	May 2019	Submitted Supplemental Application 11/16/2017

APP1-3 See response to comment APP1-1.

APP1-3 (cont'd)

Table 1.4-1
Permits and Clearances Required for the Port Arthur Pipeline Project

Agency	Permit/Authorization	Anticipated Filing Date	Anticipated Receipt Date	Status
Texas Historical Commission (THC)	Section 106 Consultation	August 2016	September 2016	Received
Texas General Land Office (GLO)	Statement of Consistency with the Coastal Management Program*	January/November 2017	May 2019	Submitted Supplemental Application 11/16/2017
Texas Department of Transportation (TXDOT)	Road Crossing/ Construction in Right-Of-Way (ROW) Permit	January 2020	March 2020	Pending
Texas Parks and Wildlife Department (TPWD)	Consultation with the TPWD	November 2016	November 2017	Complete
Louisiana Department of Environmental Quality (LDEQ)	National Pollutant Discharge Elimination System (NPDES) Permit**	December 2020	July 2021	Pending
	401 Certification*	January/November 2017	May 2019	Submitted Supplemental Application 11/16/2017
Louisiana Office of Cultural Development	Section 106 Consultation	August 2016	September 2016	Received
Louisiana Department of Natural Resources (LDNR), Office of Coastal Management	Coastal Use Permit*	January/November 2017	May 2019	Submitted Supplemental Application 11/16/2017
Local				
Local permits will be determined upon further facilities design.				

APP1-3 (cont'd)

Table 1.4-1
Permits and Clearances Required for the Port Arthur Pipeline Project

Agency	Permit/Authorization	Anticipated Filing Date	Anticipated Receipt Date	Status

* Following discussion with USACE – Galveston District office, the USACE 404/10 Pre-Construction Notification of NWP12 will be submitted as a supplemental filing to the PALNG Common Facilities Company Individual Permit application submitted 11/29/2016.

** Hydrostatic test water discharge applications were not submitted along with FERC application because processing times are relatively short (6-9 months) and to allow the EPCC contractor opportunity to update current hydrostatic discharge plan discussed in RR1.

APP1-3
(cont'd)

TABLE 1.7-1
Permits, Approvals, Consultations & Regulatory Requirements

Agency	Permit/Authorization	Filing Date	Anticipated / Receipt Date	Status
FEDERAL				
Federal Energy Regulatory Commission (FERC)	Certificate of Public Convenience and Necessity (CPCN)	November 2016	February 2019	Submitted
U. S. Army Corps of Engineers (USACE)	Clean Water Act (CWA) Section 10/404 Permit[2]	November 2016/2017	May 2019	Submitted supplemental application 11/13/2017
U.S. Fish and Wildlife Service (USFWS)	Endangered Species Act (ESA) Section 7 Consultation[2]	November 2016	June 2018	Received
United States Coast Guard (USCG)	Waterway Suitability Assessment	July 14, 2015	October 24, 2018	Received annual WSA update letter
NOAA National Marine Fisheries Service (NMFS)	ESA Section 7 and; Magnuson-Stevens Act Consultation; Essential Fish Habitat	November 2016	August 2018	Received
U. S. Environmental Protection Agency (EPA)	National Pollutant Discharge Elimination System (NPDES) Permits (Hydrostatic test water discharge/Operational Stormwater)[1,2]	January 2019 January 2019	August 2019 July 2019	Pending
U.S. Federal Aviation Administration	Aeronautical Study under 14 CFR 77 for all permanent structures, temporary construction equipment, and mobile objects that exceed the height requirements in 14 CFR 77.9	November 2018	May 2019	Pending

APP1-3 (cont'd)

TABLE 1.7-1
Permits, Approvals, Consultations & Regulatory Requirements

Agency	Permit/Authorization	Filing Date	Anticipated / Receipt Date	Status
U.S. Department of Energy (DOE)	Authorization to Export (Free Trade Agreement Countries)	March 20, 2015	August 20, 2015	Received
	Amendment to request full 13.5 MTPA capacity of the Project	October 19, 2018	January 2019	Pending
U.S. Department of Energy (DOE)	Authorization to Export (Non-Free Trade Agreement Countries)	June 15, 2015	May 2019	Submitted
	Amendment to request full 13.5 MTPA capacity of the Project	October 19, 2018	May 2019	Pending
STATE				
Texas Commission on Environmental Quality (TCEQ)	Prevention of Significant Deterioration (PSD) Permit New Source Review (NSR) Permit Title V Operating Permit	April 9, 2015 June 6, 2017	February 17, 2016 July 7, 2017	Received Received extension request letter until February 17, 2019
Texas Commission on Environmental Quality (TCEQ)	General Construction Storm Water Permit 2 (**SH87, pipelines, and utilities relocation only**)	January 2019	March 2019	Pending
Railroad Commission of Texas (RRC)	401 Certification of USACE Section 404[2]	November 2016	December 2018	Submitted
	Hydrotest Discharge Permit[1,2]	January 2019	July 2019	Pending

APP1-3
(cont'd)

TABLE 1.7-1
Permits, Approvals, Consultations & Regulatory Requirements

Agency	Permit/Authorization	Filing Date	Anticipated / Receipt Date	Status
Texas Historical Commission (THC)	National Historic Preservation Act Section 106 Consultation[2]	May 19, 2015	June 2, 2015	Received
Texas General Land Office (GLO)	Statement of Consistency with the Coastal Management Program[2] / Miscellaneous Easement	November 2016/2017	May 2019	Submitted supplemental application 11/13/2017
Texas Department of Transportation (TXDOT)	Road Crossing/ Construction in Right-Of-Way Permit	February 2019	May 2019	Pending
Texas Parks and Wildlife Department (TPWD)	Consultation with the TPWD for impacts to State protected species and impacts in State Wildlife Management Areas[2]	November 2016	November 2017	Received
LOCAL				
Jefferson County	Floodplain Development Permit[2]	December 2018	July 2019	Pending
	Development/ Building Permit	December 2018	July 2019	Pending
City of Port Arthur	Building Permit (if required)	December 2018	July 2019	Pending

[1] NPDES applications were not submitted along with FERC application because processing times are relatively short (6-9 months) and to allow EPCC contractor opportunity to update current hydrostatic discharge plan as well as the outfall locations for the Operational Stormwater Plan discussed in RR1.

[2] Permits/Authorization also required for Non-FERC Jurisdictional activities (i.e. S.H.87/Pipeline/Utilities Relocation).

APP1-3
(cont'd)

TABLE 1.6-1
Permits, Approvals, Consultations, and Regulatory

Agency	Permit/Authorization	Anticipated Filing Date	Anticipated Receipt Date	Status
Federal				
Federal Energy Regulatory Commission (FERC)	Certificate of Public Convenience and Necessity (CPCN)	October 2017	February 2019	Submitted
U. S. Army Corps of Engineers (USACE)	Section 404/10 Permit	October 2017	May 2019	Submitted
U.S. Fish and Wildlife Service (USFWS)	Section 7 Consultation	September 2017	October 2018	Complete
NOAA Fisheries	Section 7 Consultation	August 2017	August 2018	Complete
Bureau of Indian Affairs	Right-of-Way Grant	June 2018	December 2020	Ongoing
State - Texas				
Railroad Commission of Texas (RRC)	National Pollutant Discharge Elimination System (NPDES) Permit – Hydrotest Discharge	June 2020	December 2020	Ongoing
	401 Certification	October 2017	May 2019	Ongoing
Texas Historical Commission (THC)	Section 106 Consultation	June 2017	May 2019	Ongoing
Texas General Land Office (GLO)	Statement of Consistency with the Coastal Management Program	October 2017	May 2019	Ongoing
Texas Parks and Wildlife Department (TPWD)	Consultation with the TPWD	August 2017	May 2017	Received

APP1-3
(cont'd)

TABLE 1.6-1
Permits, Approvals, Consultations, and Regulatory

Agency	Permit/Authorization	Anticipated Filing Date	Anticipated Receipt Date	Status
State - Louisiana				
Louisiana Department of Environmental Quality (LDEQ)	Louisiana Pollutant Discharge Elimination System (LPDES) Permit	June 2020	December 2020	Ongoing
	Air Permit for Compressor Stations	September 2017	September 2018	Received
	401 Certification	October 2017	May 2019	Ongoing
	Hydrostatic Test Water Discharge General Permit	June 2020	December 2020	Ongoing
Louisiana Office of Cultural Development	Section 106 Consultation	September 2017	October 2017	Received
Louisiana Department of Natural Resources (LDNR)	Coastal Use Permit - Office of Coastal Management	October 2017	May 2019	Ongoing
	Letter of Comment for state listed Threatened and Endangered Species and Fish and Wildlife concerns	March 2017	June 2017	Received
	Wild and Scenic Rivers Permit	February 2019	May 2019	Ongoing
Local				
Local permits will be determined upon further facilities design.				

BILLY NUNGESSER
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

RICHARD H. HARTLEY
DEPUTY SECRETARY

KRISTIN P. SANDERS
ASSISTANT SECRETARY

September 14, 2018

Peter Cropley
R. Christopher Goodwin & Associates, Inc.
309 Jefferson Highway
New Orleans, LA 70121

APP1-4

Re: Draft Phase I Report
La Division of Archaeology Report No. 5727-1
Phase I Cultural Resources Investigation of a Portion of the Proposed Port Arthur Pipeline, Louisiana Connector within Coushatta Tribe of Louisiana Trust Land in Allen Parish, Louisiana

Dear Peter Cropley:

We acknowledge receipt of your letter dated August 17, 2018 and two copies of the above referenced report. We have completed our review of this report and have the following comments to offer:

Include the name and address of the Lead Federal Agency on the Title Page.

Based on the description of the Area of Potential Effect (APE), the proposed ground-disturbing activities, and the identification of historic properties within the APE, our office concurs with the assessment that no properties listed in or eligible for listing in the National Register of Historic Places will be affected by this project. Our office has no further concerns for this project.

Consultation with the State Historic Preservation Office does not constitute consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public. If archaeological materials are encountered during construction, the procedures codified at 36 CFR 800.13(b) will apply. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal, and glass objects. The federal agency or the applicant receiving federal assistance should contact our office immediately. If human remains are encountered, the provisions of the Louisiana Unmarked Human Burial Sites Preservation Act (Revised Statute 8:671-681) should be followed.

Please note that the Divisions of Historic Preservation and Archaeology have published new standards for field investigations and reports effective for all projects initiated after 1 September 2018. The revised standards can be found at https://www.crt.state.la.us/cultural-development/archaeology/section-106/2018-standards/index.

P.O. BOX 44247 • BATON ROUGE, LOUISIANA 70804-4247
PHONE (225) 342-8170 • FAX (225) 342-4480 • WWW.CRT.LA.GOV

APP1-4 See response to comment APP1-2.

APP1-4 (cont'd)

We look forward to receiving one bound copy (printed double sided) and one pdf of the final report. If you have any questions, please contact Emily Dale at the Division of Archaeology by email at edale@crt.la.gov or by phone at 225-219-4596.

Sincerely,

Kristen P. Sanders

Kristen Sanders,
State Historic Preservation Officer

APPLICANTS COMMENTS

20181119-5118 FERC PDF (Unofficial) 11/19/2018 12:53:04 PM

From: Linda Langley
To: Thompson, Jim
Cc: David Sickey; Zehava Zevit
Subject: [EXTERNAL] Follow-up
Date: Tuesday, November 6, 2018 8:39:44 AM

Jim,

APP1-4 (cont'd)

I wanted to follow up on last week's meeting to let you know that the Tribe has no comments on the Phase I environmental report relating to Coushatta Tribal trust lands. We did have some comments on the CR report relating to Tribal trust lands and we provided those to Goodwin & Associates.

As we discussed, we do have comments on the Phase I CR report relating to non-Tribal lands, and we will be filing those comments on the record within a few weeks.

Thank you,

Linda Langley, Ph.D.
Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana
337-584-1585

20181119-5118 FERC PDF (Unofficial) 11/19/2018 12:53:04 PM

From: Linda Langley
To: Thompson, Jim
Cc: Zehava Zevit
Subject: [EXTERNAL] Re: Follow-up
Date: Thursday, November 15, 2018 8:21:44 AM

Jim,

APP1-4 (cont'd)

I'm not sure if I responded to this already, but we are OK with the updated report.
Thanks,
Linda

Linda Langley, Ph.D.
Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana
337-584-1585

From: Thompson, Jim <jdthompson@Sempraglobal.com>
Sent: Friday, November 9, 2018 8:48 AM
To: Linda Langley
Subject: RE: Follow-up

Linda,

Good morning! I reread your email and noticed you mentioned the comments sent to RC Goodwin on the cultural survey done for the Tribal trust lands. I just want to make sure you are OK with the updated version of that report I sent to you last month. I'm getting ready to send updated information and comments on the DEIS to FERC and didn't want to include this report if you're not OK with it.

If I need to resend, please let me know.

Thanks,

Jim

From: Linda Langley <LLangley@coushatta.org>
Sent: Tuesday, November 6, 2018 8:39 AM
To: Thompson, Jim <jdthompson@Sempraglobal.com>
Cc: David Sickey <dsickey@coushatta.org>; Zehava Zevit <Zehava@franklawrence.com>
Subject: [EXTERNAL] Follow-up

APPLICANTS COMMENTS

Jim,

APP1-4 (cont'd)

I wanted to follow up on last week's meeting to let you know that the Tribe has no comments on the Phase I environmental report relating to Coushatta Tribal trust lands. We did have some comments on the CR report relating to Tribal trust lands and we provided those to Goodwin & Associates.

As we discussed, we do have comments on the Phase I CR report relating to non-Tribal lands, and we will be filing those comments on the record within a few weeks.

Thank you,

Linda Langley, Ph.D.
Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana
337-584-1585

20181119-5118 FERC PDF (Unofficial) 11/19/2018 12:53:04 PM

Port Arthur Liquefaction Project
Port Arthur Pipeline Texas Project
Port Arthur Pipeline Louisiana Project

Attachment 2
Comments on the Draft EIS

1. PALNG and PAPL is providing comments to the Draft EIS as described herein.

APP1-5

2. Response to comment submitted to FERC by Mr. Ken Teague regarding alternative site for the PALNG Liquefaction Project.

   PALNG reviewed the suggested location along the Calcasieu River identified by Mr. Ken Teague in his comments to the DEIS dated 11/01/2018. PALNG reviewed Mr. Teague's suggested alternative location in its *"Alternative Analysis for the Port Arthur Liquefaction Project,"* submitted to FERC on 09/15/2017 in response to Staff's 02/17/2017 Data Request No. 126. Furthermore, PALNG has reviewed the proposed location's availability of sale and determined the property is owned by the Lake Charles Harbor and Terminal District and the properties on the north bank are currently leased.

APP1-6

3. Response to comment submitted to FERC by Mr. Chester Wimberly regarding an alternative route for the PAPLC Project near MP 128.5 to MP 130.7

   PAPLC reviewed the proposed alternative route suggested by Mr. Chester Wimberly in his comments to the DEIS dated 10/22/2018 and provides the attached *Comparison of the Proposed Route to the Chester Wimberly Alternative Route Table* to describe the potential impacts from each. Please note this evaluation is based on a hand drawn route suggested by Mr. Wimberly and has not received constructability evaluations by PAPL. Should this alternative route be selected by FERC as the approved route, PAPL reserves the right to adjust the route and add additional workspace as needed and approved by FERC staff prior to construction.

APP1-5 Comments noted. See response to comment IND5-1.

APP1-6 Comments noted. Section 3.4 of the final EIS has been updated to include the relevant information for this alternative.

20181119-5118 FERC PDF (Unofficial) 11/19/2018 12:53:04 PM

Port Arthur LNG

Port Arthur Pipeline

	No.	Section	PALNG/PAPL DEIS Commitment	PALNG/PAPL Response
APP1-7	1.	2.1.1.2	PALNG would install a berm (i.e., 20-foot storm surge barrier) around the LNG storage tank area to prevent liquid in the storage tank area from flowing off-site in the event of an outer tank impoundment failed.	PALNG proposes to use full containment tanks which provides secondary containment for stored LNG. The facility will have storm surge berms that will act as tertiary containment in the unlikely event of an outer tank failure.
APP1-8	2.	2.4.1.1	Concrete berms with a height of 20 feet AMSL would be constructed around all areas containing critical process equipment, including the liquefaction trains and LNG storage tanks.	PALNG will construct earthen berms, and not concrete.
APP1-9	3.	2.4.1.2	The remaining 2.9 million yd3 of dredge material would be transported to the J.D. Murphree WMA using a temporary 30-inch-diameter aboveground pipeline floated in Round Lake Canal (see figure 2.1.1-3).	PALNG estimates the quantity to be placed on the J.D. Murphree WMA to be 2.4 million yd^3.
APP1-10	4.	4.2.1.6	Prior to construction of the Liquefaction Project, PALNG should provide the EPA, USACE, TCEQ, and Texas RRC the soil and sediment analysis conducted at the area within the ship canal at the marine berth, construction dock, MOF, and landward component of the MOF for review. PALNG should file the conclusions of the reviews with the Secretary along with documentation of its consultations with these agencies including any measures PALNG would need to adopt if the analysis discovers previously unknown contamination.	The commitment to sample and perform sediment analysis of the marine berth, construction dock, MOF and landward component of the MOF for agency review was made in PALNG's application in response to comments received during Pre-filing. Subsequently a Tier 1 Evaluation Report was conducted. This report was provided to Staff with PALNG's supplemental clarification filing dated January 8, 2018. This same report was submitted to the USACE on November 13, 2017. The Tier 1

1

APP1-7 Section 2.1.1.2 of the final EIS has been updated to clarify that the primary function of the 20-foot storm surge barrier is not secondary containment.

APP1-8 Section 2.4.1.2 of the final EIS has been updated to indicate the berms are earthen.

APP1-9 Section 2.4.1.2 of the final EIS has been updated to indicate 2.4 million yd^3 would be placed on the J.D. Murphree WMA.

APP1-10 FERC acknowledges that the Tier I Evaluation Report has been provided to the USACE; however, the report also needs to be submitted to the EPA, TCEQ, and Texas RRC. Further, the conclusions of all four agencies' reviews and any subsequent agency recommendations should be filed with the Secretary.

Port Arthur LNG

Port Arthur Pipeline

APP1-10 (cont'd)

			Evaluation Report analyzes all sampling events performed by PALNG as well as sediment sampling completed by others. The report concludes no additional sampling or analysis is required. If the USACE requires additional sampling and analysis, PALNG will complete this as required.

APP1-11

5.	4.5.2.1	Vegetation would be removed at the ground surface using mechanical or manual methods, or a combination of the two (vegetation would not be burned).	PALNG has also identified burning as a means of vegetation disposal in its application (RR 1, Section 1.3.2) in accordance with TCEQ requirements.

APP1-11 Section 4.5.2.1 of the final EIS has been updated to include the option of vegetation burning.

Port Arthur Pipeline

Port Arthur Pipeline Louisiana Connector Project

APP1-12

Comparison of the Proposed Route to the Chester Wimberly Route Alternative

Factor (Unit)	Proposed Route	Chester Wimberly Route Alternative
Pipeline Length (miles)	2.24	2.26
Landowners crossed (number)	25	16
Landownership (miles)	2.24	2.24
Federal	0	0
State	0	0
Private	2.24	2.26
Temporary Construction Workspace (acres) [a]	33.9	34.24
Pipeline Permanent Easement (acres) [b]	13.6	13.7
Existing Pipeline Crossings (number)	0	0
Adjacent or Collocated with Other Existing ROW (percent)	100	0
Upland Scrub/Shrub - Forested Impacts – Construction (acres) [a]	0.64	0.0
Upland Scrub/Shrub - Forested Impacts – Operation (acres) [b]	0.27	0.0
Scrub/Shrub - Forested Wetland Impacts – Construction (acres) [a]	8.59	1.74
Scrub/Shrub - Forested Wetland Impacts – Operation (acres) [b]	4.39	0.69
Non-forested Wetland Impacts – Construction (acres) [a]	12.32	25.29
Non-forested Wetland Impacts – Operation (acres) [b]	5.56	10.40
Waterbody Crossings (number)	3	3
Major Waterbody (≥ 100 feet) Crossings (number)	0	0
Scenic Rivers Crossed (number)	0	0
Road / Rail Crossed (number)	3	4
Residences within 50 feet of Pipeline Centerline (number)	0	0

APP1-12 See response to comment APP1-6.

APP1-12 (cont'd)

Comparison of the Proposed Route to the Chester Wimberly Route Alternative

Factor (Unit)	Proposed Route	Chester Wimberly Route Alternative
Conservation Easement Land Impacts – Construction (acres)[a]	0	0
Conservation Easement Land Impacts – Operation (acres)[b]	0	0

[a] Temporary construction workspace based on a 125-foot-wide construction right-of-way, which includes the permanent easement and temporary workspaces.

[b] Permanent easement based on a 50-foot-wide operational right-of-way.

Port Arthur Liquefaction Project
Port Arthur Pipeline Texas Project
Port Arthur Pipeline Louisiana Project

Attachment 3
Responses to Draft EIS Conditions

APP1-13

1. DEIS Condition 19.
   Prior to the close of the draft EIS comment period, PALNG and PAPL shall file with the Secretary updated wetland impact data for the Projects to ensure accuracy, as well as consistency with the wetland data provided to the USACE as part of PALNG's and PAPL's permit applications. The updated data shall be filed with the FERC using the same format and wetland classification system/definitions as submitted to the USACE.

   Response:

   PALNG and PAPL provides the attached updated Table 4.4.2-1 Wetlands Affected by the Projects, that provides impact data for the Projects to ensure accuracy, as well as consistency with the wetland data provided to the USACE as part of PALNG's and PAPL's permit applications. The updated data uses the same format and wetland classification system/definitions as submitted to the USACE.

APP1-14

2. DEIS Condition 30.
   Prior to the end of the draft EIS comment period, PALNG shall file with the Secretary documentation demonstrating it has filed for an Aeronautical Study under 14 CFR 77 for all permanent structures, temporary construction equipment, and mobile objects that exceed the height requirements in 14 CFR 77.9.

   Response:

   PALNG has e-filed applications demonstrating it has filed for an Aeronautical Study under 14 CFR 77 for all permanent structures, temporary construction equipment, and mobile objects that exceed the height requirements in 14 CFR 77.9. A summary page identifying these applications is being provided herein.

   PALNG submitted an application for the LNG vessels though they do not exceed the height requirements in 14 CFR 77.9.

APP1-13 Section 4.4.2.1 of the final EIS has been updated with the provided data.

APP1-14 FERC has received PALNG's Aeronautical Study, and this Environmental Recommendation has been removed from the final EIS.

APP1-15 See response to comment APP1-13.

APP1-15

Port Arthur LNG

Port Arthur Pipeline

TABLE 4.4.2-1
Wetlands Affected by the Projects

Project	Wetland Type												Impacts (acres)	
	PEM		PSS		PFO		EEM		ESS		PUB			
	Cons. [3]	Oper.[3]	Cons.	Oper.	Cons.	Oper.	Cons.	Oper.	Cons.	Oper.	Cons.	Oper.	Cons.	Oper.
LIQUEFACTION PROJECT	317.0	301.9	420.2	400.9	0.0	0.0	21.2	21.2	0.0	0.0	0.0	0.0	758.4	724.0
Dredge Disposal Areas														
J.D. Murphree WMA	0.0	0.0	0.0	0.0	0.0	0.0	903.0	0.0	0.0	0.0	0.0	0.0	903.0	0.0
Disposal Areas 8, 9A, 9B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dredge Disposal Pipelines														
J.D. Murphree WMA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Disposal Areas 8, 9A, 9B	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Subtotal	**317.4**	**301.9**	**420.2**	**400.9**	**0.0**	**0.0**	**924.3**	**21.2**	**0.0**	**0.0**	**0.0**	**0.0**	**1661.9**	**724.0**
TEXAS CONNECTOR PROJECT														
Northern Pipeline	92.2	35.2	8.3	3.4	14.6	4.3	5.5	2.7	0.0	0.0	0.0	0.0	120.6	45.6
Southern Pipeline	9.7	4.0	0.0	0.0	0.0	0.0	22.5	9.4	0.0	0.0	0.0	0.0	32.2	13.4
FGT Lateral	0.2	0.1	0.0	0.0	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.9
GTS Lateral	0.1	0.0	0.0	0.0	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.5
KMLP Lateral	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.5	0.0	0.0	0.0	0.0	1.3	0.5
NGPL Lateral	0.0	0.0	0.0	0.0	0.0	0.0	3.9	1.5	0.0	0.0	0.0	0.0	3.9	1.5
HPL Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TETCO Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GTS/CIPCO Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aboveground Facilities [4]	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0
Access Roads	10.5	0.0	6.1	0.3	2.2	0.0	3.0	0.1	0.0	0.0	0.0	0.0	21.8	0.4
ATWS	28.7	0.0	6.0	0.0	7.5	0.0	7.3	0.0	0.0	0.0	0.0	0.0	49.5	0.0
Subtotal	**141.5**	**39.3**	**20.5**	**3.6**	**29.6**	**6.6**	**46.5**	**17.3**	**0.0**	**0.0**	**0.0**	**0.0**	**238.1**	**66.8**

1

APP1-15
(cont'd)

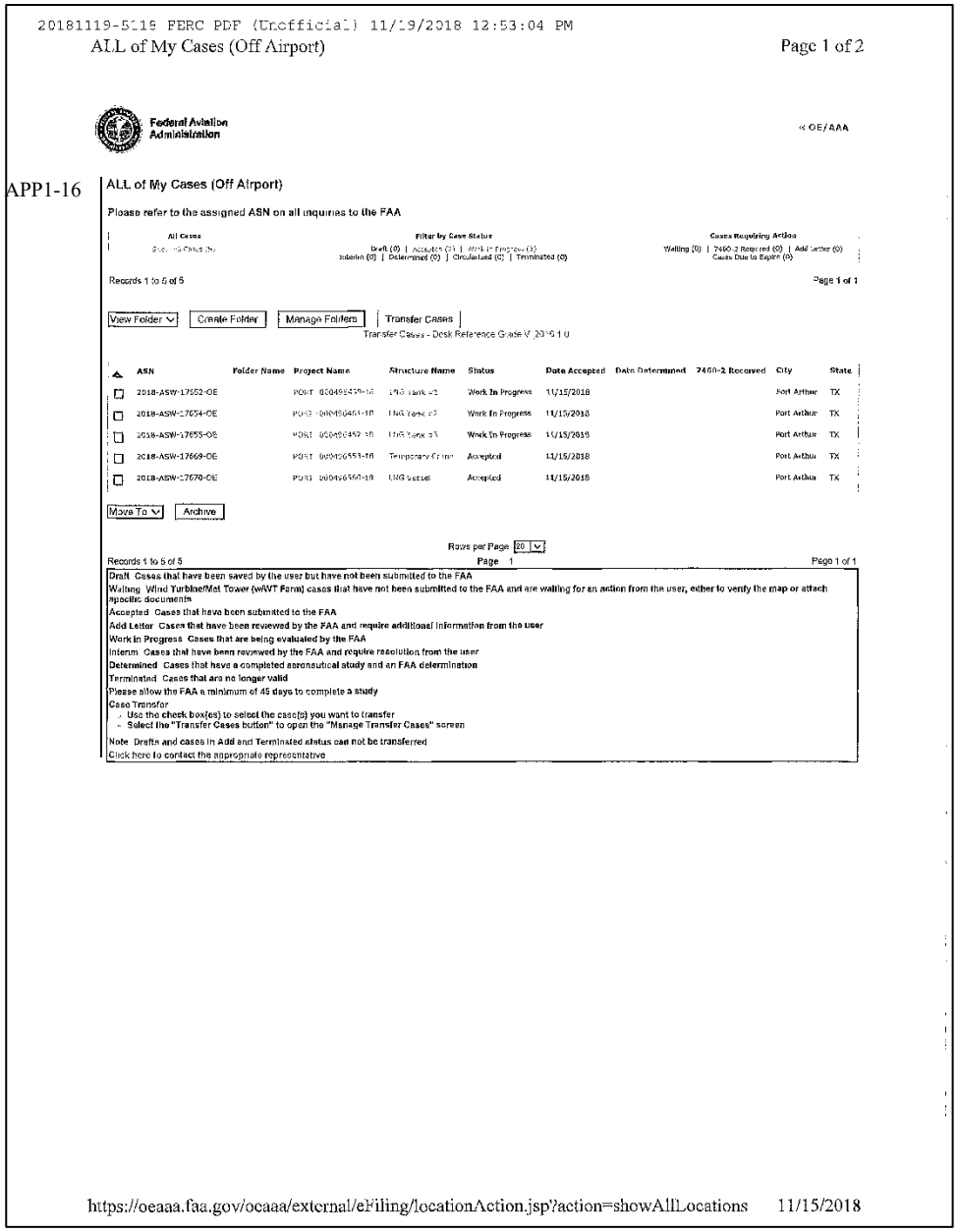
LOUISIANA CONNECTOR PROJECT														
Mainline	237.6	100.4	33.4	14.7	146.3	68.1	123.5	49.2	0.0	0.0	0.0	0.0	540.8	232.4
TETCO Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CS Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TGP Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Egan Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pine Prairie	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Texas Gas Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ANR Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CGT Lateral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aboveground Facilities	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2
Laydown Yard	2.9	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0
Access Roads	15.1	9.9	0.3	0.0	0.8	0.6	5.2	1.0	0.0	0.0	0.0	0.0	21.4	11.5
ATWS	28.1	0.0	2.2	0.0	25.9	0.0	15.1	0.0	0.0	0.0	0.0	0.0	71.3	0.0
Subtotal	**283.8**	**110.4**	**36.2**	**14.7**	**173.0**	**68.7**	**143.9**	**50.3**	**0.0**	**0.0**	**0.0**	**0.0**	**636.9**	**244.1**
Nonjurisdictional Facilities	90.5	28.4	50.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	140.8	45.1
Projects Total	**833.2**	**460.0**	**527.2**	**435.9**	**202.6**	**75.3**	**1114.7**	**88.8**	**0.0**	**0.0**	**0.0**	**0.0**	**2677.7**	**1060.0**

[a] Construction and operation impacts are based on the typical construction and permanent rights-of-way widths (125 feet, 110 feet, 50 feet, etc.) and workspace areas as discussed in section 2.2. The HDD method would be used to avoid direct impacts on wetlands at various locations, as listed in table 2.4.3-1. Most wetland types would be allowed to revert to pre-construction conditions, and limited vegetation maintenance would be allowed in wetlands during project operations.

[b] The South Compressor Station and Centana and PALNG laterals would be within the liquefaction site boundaries and, therefore, their impacts on wetlands are included as part of the impacts for the Liquefaction Project.

2

APPLICANTS COMMENTS



20181119-5116 FERC PDF (Unofficial) 11/19/2018 12:53:04 PM
ALL of My Cases (Off Airport) Page 1 of 2

Federal Aviation Administration

« OE/AAA

APP1-16

ALL of My Cases (Off Airport)

Please refer to the assigned ASN on all inquiries to the FAA

All Cases
Filter by Case Status
Draft (0) | Accepted (0) | Work In Progress (3)
Interim (0) | Determined (0) | Circularized (0) | Terminated (0)
Cases Requiring Action
Waiting (0) | 7460-2 Received (0) | Add Letter (0)
Cases Due to Expire (0)

Records 1 to 5 of 5 Page 1 of 1

View Folder | Create Folder | Manage Folders | Transfer Cases
Transfer Cases - Desk Reference Guide V 2016.1.0

	ASN	Folder Name	Project Name	Structure Name	Status	Date Accepted	Date Determined	7460-2 Received	City	State
☑	2018-ASW-17652-OE		PORT [illegible]	LNG Tank #1	Work In Progress	11/15/2018			Port Arthur	TX
☐	2018-ASW-17654-OE		PORT [illegible]	LNG Tank #2	Work In Progress	11/15/2018			Port Arthur	TX
☐	2018-ASW-17655-OE		PORT [illegible]	LNG Tank #3	Work In Progress	11/15/2018			Port Arthur	TX
☐	2018-ASW-17669-OE		PORT [illegible]	Temporary Crane	Accepted	11/15/2018			Port Arthur	TX
☐	2018-ASW-17670-OE		PORT [illegible]	LNG Vessel	Accepted	11/15/2018			Port Arthur	TX

Move To | Archive

Rows per Page 20
Records 1 to 5 of 5 Page 1 Page 1 of 1

Draft Cases that have been saved by the user but have not been submitted to the FAA
Waiting Wind Turbine/Met Tower (wWT Farm) cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach specific documents
Accepted Cases that have been submitted to the FAA
Add Letter Cases that have been reviewed by the FAA and require additional information from the user
Work In Progress Cases that are being evaluated by the FAA
Interim Cases that have been reviewed by the FAA and require resolution from the user
Determined Cases that have a completed aeronautical study and an FAA determination
Terminated Cases that are no longer valid
Please allow the FAA a minimum of 45 days to complete a study
Case Transfer
- Use the check box(es) to select the case(s) you want to transfer
- Select the "Transfer Cases button" to open the "Manage Transfer Cases" screen

Note Drafts and cases in Add and Terminated status can not be transferred
Click here to contact the appropriate representative

https://oeaaa.faa.gov/ocaaa/external/eFiling/locationAction.jsp?action=showAllLocations 11/15/2018

APP1-16 See response to comment APP1-14.

JD Morris
Director, Permitting & Compliance
2925 Briarpark Drive, Suite 900
Houston, TX 77042
713-298-5479
jmorris@sempraglobal.com

November 19, 2018

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Port Arthur LNG, LLC, Docket No. CP17-20-000
Port Arthur Pipeline, LLC, Docket No. CP17-21-000
Port Arthur Pipeline, LLC, Docket No. CP18-7-000

Dear Ms. Bose:

APP2-1 On November 29, 2016, Port Arthur LNG, LLC and PALNG Common Facilities Company, LLC (collectively known as PALNG) along with Port Arthur Pipeline, LLC (PAPL) submitted applications under Section 3(a) and Section 7(c) of the Natural Gas Act for the construction and operation of a new LNG liquefaction facility (PALNG Project) and for the construction and operation of a new feed gas pipeline (PAPL Texas Connector or PAPTC) near Port Arthur, Texas. On October 16, 2017, PAPL submitted an application under Section 7(c) for the construction and operation of an additional feed gas pipeline (PAPL Louisiana Connector or PAPLC). In today's submittal, PALNG and PAPL are providing additional information related to these projects, comments to the Draft Environmental Impact Statement (EIS) and responses to Draft EIS conditions.

Attachment 1 – *Supplemental Information*

Attachment 2 – *Comments on Draft EIS*

Attachment 3 – *Responses to Draft EIS Conditions*

Please note that some of the material filed herein contains Privileged and Confidential Information ("PRIV"). Portions of Attachment 1 include documents that contain proprietary information and/or PRIV. Pursuant to Section 388.112 of the Commission's regulations, Port Arthur LNG requests that the Commission treat this information as privileged material. The information included in these attachments meets the Commission's definition of privileged material and treatment of this information as privileged is therefore warranted. Port Arthur LNG is submitting a public version of this filing, with the privileged material redacted. The privileged material has been labeled accordingly and is not to be released. Port Arthur LNG previously filed a proposed form of Protective Order and Non-Disclosure Certificate in this proceeding on November 29, 2016.

For questions concerning this submittal please contact Jim Thompson at 832-284-5685. Thank you for your attention to these matters.

Respectfully submitted,

/s/JD Morris
JD Morris
Director, Permitting & Compliance
On behalf of PALNG and PAPL

cc: Jim Thompson
Jerrod Harrison
Bill Lansinger

APP2-1 See responses to comment letter APP1-1 as this comment is duplicative of that comment, and therefore, is not being included in its entirety.

APPENDIX U

SUBJECT INDEX

Appendix U

Subject Index

access road ES-3, 2-21, 2-24, 2-25, 2-31, 2-32, 2-36, 2-46, 2-47, 3-12, 4-15, 4-16, 4-17, 4-22, 4-23, 4-32, 4-34, 4-43, 4-44, 4-52, 4-60, 4-62, 4-63, 4-75, 4-78, 4-84, 4-87, 4-124, 4-157, 4-159, 4-162, 4-163, 4-165, 4-167, 4-168, 4-169, 4-175, 4-176, 4-177, 4-185, 4-186, 4-219, 4-220, 4-221, 4-222, 4-225, 4-339, 4-347, 4-351, 5-14, 5-17, 5-18, 5-22, 5-26, 5-28, 5-33

additional temporary workspace (ATWS) 2-19, 2-20, 2-21, 2-22, 2-25, 2-37, 2-43, 4-43, 4-44, 4-50, 4-51, 4-56, 4-57, 4-62, 4-63, 4-64, 4-65, 4-69, 4-70, 4-73, 4-87, 4-92, 4-97, 4-107, 4-109, 4-159, 4-160, 4-161, 4-162, 4-164, 4-165, 4-166, 4-167, 4-175, 4-177, 4-179, 4-180, 4-182, 4-183, 4-184, 4-187, 4-221, 5-9, 5-17, 5-22

Advisory Council on Historic Preservation (ACHP) 1-16, 4-219, 4-225, 4-226, 5-33

air quality control regions (AQCR) 4-228, 4-229, 4-325

air quality ES-5, ES-6, ES-7, 1-4, 1-12, 1-17, 1-19, 4-1, 4-227, 4-228, 4-229, 4-230, 4-231, 4-232, 4-234, 4-236, 4-239, 4-243, 4-244, 4-246, 4-325, 4-326, 4-356, 4-357, 4-358, 4-361, 5-1, 5-23

American Society for Testing and Materials (ASTM) 4-17, 4-19, 4-283

American Society of Civil Engineers (ASCE) 2-6, 4-259, 4-284, 4-286, 4-287, 4-288, 4-289

American Society of Mechanical Engineers (ASME) 2-31, 4-275, 4-276, 4-307, 5-43

ANR Pipeline Company (ANR) ES-3, 1-3, 1-17, 2-15, 2-17, 2-20, 2-26, 2-27, 3-9, 4-12, 4-34, 4-56, 4-70, 4-71, 4-166, 4-222, 4-229, 4-249, 4-256, 4-314

aquifer 4-24, 4-25, 4-26, 4-27, 4-28, 4-29, 4-341, 4-342, 4-361, 5-3, 5-4

Bald and Golden Eagle Protection Act (BGEPA) 1-15, 4-88, 4-89

ballast water 2-41, 4-38, 4-39, 4-99, 4-103, 4-121, 4-123, 4-261, 4-263, 4-342, 4-343, 4-349, 5-5, 5-11, 5-12

Beauregard Electric CO-OP Inc. (BECi) 1-14, 2-19, 4-337

beneficial reuse of dredge material ES-5, ES-6, 1-16, 2-9, 2-19, 2-21, 2-31, 2-49, 4-17, 4-18, 4-20, 4-55, 4-58, 4-59, 4-72, 4-81, 4-84, 4-95, 4-100, 4-112, 4-127, 4-140, 4-156, 5-7, 5-8, 5-9, 5-10, 5-11, 5-15

Best Available Control Technology (BACT) 4-232, 4-240, 4-361

Big Hill Bayou 2-38, 4-96, 4-120

Biological Assessment (BA) 1-15, 4-129, 4-255, 4-256, 5-15

Biological Opinion (BO) 4-129

Birds of Conservation Concern (BCC) 4-88, 4-89, 4-90, 5-11

blasting 2-34, 4-2, 4-10, 4-85, 4-236, 4-239, 4-270, 4-300, 4-340, 5-2, 5-36

boiling liquid expanding vapor explosion (BLEVE) 4-271

boil-off gas (BOG) 1-2, 2-5, 2-9, 4-302, 4-330, 5-38

Captain of the Port (COTP) 1-7, 4-264, 4-266, 4-268

carbon dioxide (CO_2) 2-3, 4-7, 4-228, 4-272, 4-273, 4-281, 4-325

carbon dioxide equivalents (CO_2e) 4-228, 4-234, 4-237, 4-238, 4-241, 4-242

carbon monoxide (CO) 4-227, 4-230, 4-232, 4-237, 4-238, 4-241, 4-242, 4-243, 4-244, 4-245

Appendix U

Subject Index

cathodic protection....2-14, 2-18, 2-49, 4-317, 4-319

Centana Interstate Pipeline, LP (Centana)....ES-3, 1-3, 1-14, 2-15, 2-17, 2-21, 2-26, 2-27, 3-9, 4-12, 4-33, 4-57, 4-70, 4-167, 4-221, 4-229, 4-249, 4-256, 4-314

Central Louisiana Electric Company (CLECO)....1-14, 2-19, 4-337

Certificate of Public Convenience and Necessity (Certificate)....ES-1, 1-1, 1-2, 1-3, 1-5, 1-14, 1-19, 1-20, 2-47, 4-1, 4-224, 4-263, 4-312

City of Port Arthur....ES-4, 1-11, 1-18, 3-18, 4-29, 4-41, 4-102, 4-170, 4-171, 4-190, 4-191, 4-193, 4-196, 4-198, 4-200, 4-203, 4-204, 4-205, 4-209, 4-247, 4-249, 4-342, 5-3

Clean Air Act (CAA)....1-9, 1-15, 1-17, 4-231, 4-232, 4-233

Clean Water Act (CWA)....ES-6, 1-6, 1-7, 1-9, 1-15, 1-16, 1-18, 1-19, 1-20, 4-31, 4-37, 4-40, 4-52, 4-64, 4-181, 4-187, 4-344, 4-346, 5-18

climate change....1-12, 4-136, 4-228, 4-360, 4-361, 4-362

Coastal Zone Management Act (CZMA)....1-4, 1-15, 1-16, 4-52, 4-186, 4-187, 5-17, 5-32

Coastal Zone Management Program (CZMP)....1-4, 1-15, 1-16, 4-52, 4-186, 4-187, 5-17, 5-32

colonial waterbirds....1-12, 4-89, 4-90, 5-11

Columbia Gulf Transmission, LLC (CGT)....ES-3, 1-3, 2-15, 2-17, 2-21, 2-26, 2-27, 3-9, 4-12, 4-34, 4-57, 4-71, 4-166, 4-185, 4-249, 4-256, 4-314, 5-18

Compensatory Mitigation Plan....ES-6, 4-20, 4-55, 4-59, 4-62, 4-75

compensatory mitigation....ES-6, ES-10, 1-7, 2-9, 4-59, 4-62, 4-64, 4-67, 4-68, 4-346, 5-8

compressor station....ES-1, ES-3, ES-4, ES-7, ES-8, 1-1, 1-3, 1-4, 1-10, 1-14, 2-1, 2-10, 2-13, 2-14, 2-15, 2-17, 2-19, 2-20, 2-21, 2-24, 2-26, 2-27, 2-46, 2-47, 3-18, 3-24, 4-3, 4-9, 4-14, 4-22, 4-28, 4-34, 4-44, 4-48, 4-57, 4-62, 4-63, 4-70, 4-75, 4-84, 4-86, 4-87, 4-90, 4-91, 4-126, 4-130, 4-156, 4-161, 4-162, 4-165, 4-166, 4-167, 4-178, 4-184, 4-185, 4-193, 4-194, 4-216, 4-217, 4-219, 4-220, 4-221, 4-227, 4-229, 4-232, 4-233, 4-234, 4-235, 4-237, 4-238, 4-240, 4-241, 4-242, 4-243, 4-244, 4-246, 4-247, 4-248, 4-249, 4-254, 4-255, 4-256, 4-271, 4-325, 4-332, 4-333, 4-334, 4-337, 4-339, 4-341, 4-342, 4-356, 4-357, 4-358, 4-359, 4-361, 5-2, 5-4, 5-18, 5-21, 5-22, 5-23, 5-24, 5-27, 5-32, 5-34

cone penetration tests (CPT)....4-283

conservation easement....4-180

construction workforce/personnel....ES-2, 2-3, 2-14, 2-17, 2-27, 2-32, 2-48, 3-12, 4-147, 4-148, 4-172, 4-175, 4-179, 4-183, 4-184, 4-189, 4-190, 4-191, 4-192, 4-193, 4-194, 4-195, 4-196, 4-197, 4-198, 4-199, 4-200, 4-201, 4-202, 4-203, 4-204, 4-206, 4-207, 4-208, 4-209, 4-210, 4-211, 4-212, 4-213, 4-258, 4-259, 4-260, 4-263, 4-264, 4-269, 4-271, 4-274, 4-275, 4-279, 4-280, 4-296, 4-297, 4-299, 4-301, 4-307, 4-316, 4-317, 4-318, 4-353, 4-354, 5-19, 5-20, 5-21, 5-28, 5-29, 5-30, 5-32, 5-36, 5-37, 5-43

contaminated soil....4-17, 4-27, 4-40, 5-3

contractor yards and staging areas....ES-3, ES-6, 2-24, 2-26, 2-41, 4-20, 4-22, 4-27, 4-28, 4-36, 4-41, 4-43, 4-44, 4-54, 4-62, 4-75, 4-87, 4-91, 4-136, 4-151, 4-158, 4-163, 4-164, 4-168, 4-169, 4-186, 4-212, 4-219, 4-220, 4-221, 4-222, 4-240, 4-278, 4-312, 4-313, 5-21, 5-22, 5-28

Council on Environmental Quality (CEQ)....1-4, 1-5, 1-10, 1-13, 3-1, 4-215, 4-324, 4-329

Appendix U

Subject Index

Coushatta Tribe of Louisiana.....ES-4, ES-ES-5, ES-ES-10, 1-11, 1-12, 1-13, 1-17, 1-20, 3-24, 4-63, 4-170, 4-179, 4-200, 4-221, 4-222, 4-223, 4-224, 4-225, 4-226, 5-22, 5-23, 5-27, 5-30, 5-33

Dredge Disposal Areas 8, 9A, and 9B 2-9, 2-10, 2-21, 2-29, 4-2, 4-20, 4-27, 4-31, 4-37, 4-58, 4-71, 4-82, 4-92, 4-95, 4-100, 4-130, 4-155, 4-158, 5-5, 5-9

Dredge Disposal Areas 9A and 9B 2-31, 4-20, 4-58, 4-72, 4-95, 4-112, 4-158, 4-170, 4-219, 5-21

dredge disposal areas ES-5, ES-6, 1-11, 2-9, 2-21, 2-29, 2-30, 2-31, 2-49, 3-6, 4-2, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-20, 4-21, 4-27, 4-30, 4-31, 4-36, 4-37, 4-56, 4-58, 4-69, 4-71, 4-72, 4-82, 4-83, 4-84, 4-92, 4-95, 4-100, 4-111, 4-112, 4-121, 4-130, 4-140, 4-155, 4-156, 4-157, 4-158, 4-170, 4-176, 4-219, 4-225, 5-2, 5-3, 5-5, 5-7, 5-9, 5-10, 5-14, 5-21, 5-33

dredging ES-2, ES-5, ES-6, ES-9, 1-6, 1-7, 1-11, 1-12, 1-13, 1-16, 2-3, 2-6, 2-7, 2-9, 2-19, 2-21, 2-29, 2-30, 2-31, 2-32, 2-41, 2-49, 3-2, 3-6, 3-12, 3-17,4-2, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-20, 4-21, 4-27, 4-30, 4-31, 4-33, 4-34, 4-36, 4-37, 4-38, 4-40, 4-45, 4-50, 4-52, 4-53, 4-55, 4-56, 4-58, 4-59, 4-64, 4-67, 4-69, 4-71, 4-72, 4-81, 4-82, 4-83, 4-84, 4-87, 4-92, 4-95, 4-99, 4-100, 4-101, 4-102, 4-105, 4-111, 4-112, 4-121, 4-122, 4-130, 4-140, 4-145, 4-155, 4-156, 4-157, 4-158, 4-170, 4-176, 4-177, 4-181, 4-182, 4-219, 4-225, 4-283, 4-284, 4-326, 4-336, 4-340, 4-342, 4-343, 4-344, 4-345, 4-346, 4-347, 4-349, 4-354, 4-359, 5-2, 5-4, 5-5, 5-7, 5-8, 5-9, 5-10, 5-11, 5-12, 5-14, 5-15, 5-21, 5-26, 5-33

Driftwood Pipeline LLC (DWPL) ES-9, ES-10, 1-13, 3-7, 3-19, 3-20, 3-21, 4-174, 4-331, 4-333, 4-338, 4-339, 4-340, 4-341, 4-342, 4-343, 4-344, 4-345, 4-348, 4-349, 4-352, 4-356, 4-357, 4-358, 5-17, 5-26

dust..... ES-74-21, 4-42, 4-46, 4-88, 4-159, 4-172, 4-175, 4-176, 4-177, 4-231, 4-236, 4-237, 4-239, 4-325, 4-356, 4-357, 5-3, 5-23, 5-32

Emergency Response Plan (ERP).....4-207, 4-268, 4-296, 4-297, 4-299, 4-316, 4-317, 5-35

emergency response..... 4-162, 4-207, 4-266, 4-272, 4-277, 4-292, 4-294, 4-296, 4-297, 4-298, 4-299, 4-312, 4-316, 4-317, 4-323, 4-362, 5-35

emergency shutdown (ESD) 4-264, 4-272, 4-274, 4-276, 4-277, 4-279, 4-280, 4-297, 4-301, 4-303, 4-304, 5-37, 5-39, 5-40

eminent domain..... 1-12, 3-8, 3-17, 4-169, 5-26, 5-28

Endangered Species Act (ESA) ES-11, 1-4, 1-15, 1-16, 1-18, 1-19, 1-20, 4-88, 4-89, 4-109, 4-129, 4-130, 4-131, 4-132, 4-139, 4-142, 4-143, 4-148, 4-350, 4-351, 5-15, 5-32

Energy Policy Act of 2005 (EPAct)..... 1-4, 1-16, 4-258, 4-297

Environmental Inspector (EI).....2-34, 2-48, 4-21, 4-50, 4-182, 5-28, 5-29, 5-30

environmental justice 4-214, 4-215, 4-216, 4-217, 4-325

Environmental Plan ES-6, ES-11, 2-22, 2-25, 2-28, 2-29, 2-31, 2-40, 2-46, 2-48, 3-20, 4-10, 4-21, 4-22, 4-23, 4-27, 4-28, 4-29, 4-40, 4-41, 4-42, 4-43, 4-49, 4-58, 4-59, 4-60, 4-61, 4-71, 4-72, 4-73, 4-75, 4-76, 4-77, 4-78, 4-84, 4-86, 4-87, 4-88, 4-90, 4-102, 4-104, 4-105, 4-107, 4-108, 4-109, 4-125, 4-126, 4-127, 4-128, 4-152, 4-153, 4-154, 4-157, 4-159, 4-162, 4-163, 4-165, 4-168, 4-175, 4-177, 4-179, 4-180, 4-181, 4-183, 4-184, 4-185, 4-186, 5-2, 5-3, 5-5, 5-6, 5-9, 5-10, 5-11, 5-13, 5-15, 5-16, 5-17, 5-18, 5-19

equivalent sound level (L_{eq}) 4-246, 4-247

Appendix U

Subject Index

erosion control 2-29, 2-31, 2-34, 2-36, 2-37, 2-46, 2-49, 4-21, 4-72, 4-75, 4-104, 4-107, 4-123, 4-154, 4-173, 5-2, 5-13

erosion..... ES-6, ES-11, 2-28, 2-29, 2-30, 2-31, 2-34, 2-35, 2-36, 2-37, 2-46, 2-49, 4-7, 4-9, 4-10, 4-12, 4-13, 4-16, 4-20, 4-21, 4-22, 4-36, 4-38, 4-40, 4-41, 4-42, 4-43, 4-45, 4-49, 4-50, 4-51, 4-59, 4-72, 4-75, 4-81, 4-88, 4-90, 4-102, 4-103, 4-104, 4-106, 4-107, 4-108, 4-109, 4-112, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-127, 4-153, 4-154, 4-173, 4-284, 4-290, 4-340, 4-343, 4-344, 4-345, 4-348, 4-353, 5-1, 5-2, 5-3, 5-5, 5-6, 5-7, 5-12, 5-13, 5-29

Essential Fish Habitat (EFH) 1-4, 1-11, 1-15, 1-18, 1-19, 1-20, 3-9, 3-13, 3-16, 4-1, 4-30, 4-33, 4-53, 4-81, 4-82, 4-88, 4-94, 4-95, 4-107, 4-109, 4-110, 4-111, 4-112, 4-114, 4-115, 4-117, 4-118, 4-119, 4-120, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-127, 4-128, 4-324, 4-327, 4-330, 4-331, 4-332, 4-333, 4-334, 4-335, 4-336, 4-337, 4-338, 4-339, 4-348, 4-349, 4-350, 5-1, 5-4, 5-14, 5-15

estuarine emergent marsh (EEM) ES-62-21, 3-16, 4-53, 4-54, 4-55, 4-56, 4-57, 4-58, 4-60, 4-61, 4-62, 4-63, 4-67, 4-68, 4-71, 4-72, 4-79, 4-80, 4-81, 4-82, 4-111, 4-112, 4-114, 4-118, 4-119, 4-120, 4-121, 4-124, 4-125, 4-155, 4-158, 4-163, 5-7, 5-14

estuarine scrub-shrub (ESS)..... 3-16, 4-53, 4-54, 4-56, 4-57, 4-63, 4-71, 4-124, 4-158

Exclusive Economic Zone 4-38, 4-103, 4-145

Facility Security Assessment (FSA) 4-268

Facility Security Plan (FSP)..... 1-7, 4-264, 4-268

farmland of statewide importance..... 4-14

Federal Emergency Management Agency (FEMA) 4-8

fisheries management plans 1-15, 4-111

fisheries..... 1-4, 1-15, 3-9, 4-31, 4-43, 4-50, 4-82, 4-93, 4-94, 4-95, 4-96, 4-99, 4-106, 4-107, 4-109, 4-115, 4-130, 4-142, 4-143, 4-154, 4-324, 4-349, 4-350, 5-11

flooding..... 2-38, 4-3, 4-7, 4-8, 4-9, 4-11, 4-14, 4-36, 4-43, 4-53, 4-61, 4-115, 4-140, 4-213, 4-253, 4-272, 4-282, 4-285, 4-288, 4-289, 4-290, 4-310, 4-321, 4-323, 4-360, 4-361, 5-1, 5-45

Florida Gas Transmission (FGT) ES-3,1-2, 2-10, 2-13, 2-20, 2-24, 2-27, 2-39, 3-9, 4-12, 4-32, 4-43, 4-47, 4-48, 4-56, 4-62, 4-69, 4-70, 4-160, 4-161, 4-171, 4-185, 4-220, 4-229, 4-249, 4-250, 4-252, 4-255, 4-313, 4-316, 4-332, 4-339, 4-341, 4-342, 5-8, 5-21, 5-33

forested wetland..... ES-6, ES-10, 3-20, 3-21, 4-60, 4-62, 4-63, 4-73, 4-86, 4-93, 4-96, 4-164

front-end-engineering-design (FEED) 4-271, 4-274, 4-280, 4-281, 4-297, 4-299, 4-301, 5-36, 5-37

global warming potential (GWP)..... 4-228

Golden Triangle Storage, Inc./Centana Intrastate Pipeline, LLC (GTS/CIPCO) ES-3, 1-2, 2-10, 2-13, 2-14, 2-20, 2-21, 2-24, 2-27, 3-9,4-32, 4-43, 4-48, 4-56, 4-160, 4-161, 4-185, 4-220, 4-249, 4-255, 5-21

greenhouse gas (GHG)..... 4-228, 4-234, 4-236, 4-239, 4-325, 4-360, 4-361, 4-362

Groundwater Conservation Districts (GCD)..... 4-25

groundwater 1-12, 4-6, 4-7, 4-15, 4-18, 4-24, 4-25, 4-26, 4-27, 4-28, 4-29, 4-30, 4-52, 4-61, 4-181, 4-287, 4-324, 4-326, 4-327, 4-337, 4-341, 4-342, 4-361, 5-3, 5-4, 5-18

Appendix U

Subject Index

Gulf of Mexico Fishery Management Council (GMFMC).....4-93, 4-94, 4-95, 4-96, 4-97, 4-111, 4-112, 4-115, 4-116

hazard and operability review (HAZOP).....4-274, 4-301, 5-37

hazardous air pollutants (HAPs).....4-228, 4-233, 4-237, 4-238, 4-358

hazardous waste.....1-12, 2-28, 4-17, 4-21, 4-22, 4-181, 5-3, 5-18

HDD Contingency Plan.....2-40, 4-43, 4-44, 4-152, 4-154, 4-179, 5-6

high consequence area (HCA).....4-314, 4-315

Hillebrandt Bayou.....2-39, 4-32, 4-33, 4-47, 4-48, 4-96, 4-181, 4-327

horizontal directional drill (HDD).....ES-7, ES-11, 2-22, 2-25, 2-28, 2-38, 2-39, 2-40, 2-41, 2-43, 3-17, 3-19, 3-20, 4-9, 4-10, 4-22, 4-29, 4-42, 4-43, 4-44, 4-45, 4-46, 4-47, 4-48, 4-50, 4-51, 4-54, 4-57, 4-60, 4-63, 4-69, 4-73, 4-84, 4-85, 4-86, 4-87, 4-90, 4-91, 4-97, 4-98, 4-106, 4-107, 4-108, 4-118, 4-119, 4-120, 4-124, 4-125, 4-126, 4-127, 4-128, 4-133, 4-134, 4-136, 4-143, 4-145, 4-150, 4-152, 4-153, 4-154, 4-164, 4-168, 4-169, 4-177, 4-178, 4-179, 4-180, 4-181, 4-183, 4-184, 4-212, 4-221, 4-248, 4-249, 4-250, 4-251, 4-252, 4-325, 4-340, 4-344, 4-346, 4-348, 4-349, 4-350, 4-351, 4-358, 4-359, 5-2, 5-6, 5-9, 5-10, 5-13, 5-14, 5-15, 5-17, 5-18, 5-19, 5-20, 5-23, 5-33

Houston Pipeline Company LP (HPL).....ES-3, 1-2, 2-10, 2-13, 2-20, 2-24, 2-27, 3-9, 4-12, 4-32, 4-48, 4-56, 4-69, 4-70, 4-160, 4-161, 4-181, 4-185, 4-220, 4-229, 4-249, 4-255, 4-313, 4-315, 5-21

hydric soils.....4-12, 4-14, 4-15, 4-19, 4-52, 5-2

hydrostatic testing.....1-9, 1-16, 2-28, 2-30, 2-32, 2-36, 2-37, 2-47, 4-19, 4-29, 4-40, 4-41, 4-48, 4-49, 4-60, 4-102, 4-105, 4-106, 4-108, 4-125, 4-126, 4-248, 4-249, 4-285, 4-307, 4-308, 4-313, 4-342, 4-345, 5-3, 5-6, 5-13, 5-43

impaired waters.....1-12, 4-31, 4-33, 4-34, 4-35, 4-49, 5-6

Important Bird Areas (IBA).....4-90

International Maritime Organization (IMO).....4-38, 4-263

International Society for Automation (ISA).....4-274, 4-275, 4-280

Intracoastal Waterway (ICWW).....2-10, 2-31, 2-38, 2-39, 4-20, 4-30, 4-31, 4-32, 4-33, 4-37, 4-46, 4-47, 4-55, 4-58, 4-93, 4-95, 4-108, 4-112, 4-120, 4-125, 4-158, 4-176, 4-212, 5-5, 5-15

invasive species.....1-12, 4-39, 4-60, 4-61, 4-75, 4-76, 4-77, 4-84, 4-86, 4-103, 4-123, 5-9, 5-10, 5-11

J.D. Murphree Wildlife Management Area (J.D. Murphree WMA).....ES-4, ES-5, ES-7, 1-11, 1-13, 2-9, 2-10, 2-19, 2-21, 2-29, 2-32, 2-49, 4-2, 4-12, 4-20, 4-21, 4-27, 4-31, 4-36, 4-47, 4-55, 4-56, 4-58, 4-64, 4-69, 4-71, 4-72, 4-73, 4-81, 4-83, 4-84, 4-89, 4-92, 4-95, 4-96, 4-100, 4-111, 4-118, 4-121, 4-127, 4-130, 4-140, 4-155, 4-156, 4-157, 4-169, 4-170, 4-176, 4-177, 4-181, 4-182, 4-186, 4-196, 4-219, 4-220, 4-261, 4-346, 4-347, 4-352, 5-3, 5-5, 5-7, 5-9, 5-10, 5-14, 5-15, 5-16, 5-17, 5-19, 5-21

karst.....4-3, 4-7, 5-1

Keith Lake.....2-39, 4-31, 4-46, 4-67, 4-169, 4-176, 4-177, 4-178, 4-180, 4-185, 4-186, 5-17, 5-19

Appendix U

Subject Index

Kinder Morgan Louisiana Pipeline LLC (KMLP).....ES-3, 1-2, 2-10, 2-13, 2-24, 3-9, 4-32, 4-48, 4-56, 4-63, 4-181, 4-185, 4-221, 4-229, 4-249, 4-255, 4-313, 4-316, 4-333, 4-340, 4-342, 4-348

lateral pipeline..... ES-3, ES-6, 1 -1, 1-2, 1-3, 1-4, 2-1, 2-10, 2-13, 2-14, 2-15, 2-17, 2-18, 2-19, 2-20, 2-22, 2-24, 2-25, 2-26, 2-27, 2-39, 3-8, 4-12, 4-32, 4-34, 4-43, 4-47, 4-48, 4-56, 4-57, 4-62, 4-69, 4-70, 4-84, 4-85, 4-96, 4-108, 4-112, 4-159, 4-160, 4-161, 4-162, 4-164, 4-165, 4-166, 4-170, 4-171, 4-183, 4-192, 4-219, 4-220, 4-221, 4-241, 4-250, 4-252, 4-313, 4-314, 4-315, 4-316, 4-317, 4-332, 4-339, 4-341, 4-342, 5-8, 5-33

Least Environmentally Damaging Practicable Alternative (LEDPA) 1-7

Letter of Determination (LOD).....ES-8, 1-9, 4-257, 4-258, 4-261, 4-288, 4-311, 5-24

Letter of Recommendation (LOR)..... ES-8, ES-11, 1-7, 1-17, 4-261, 4-264, 4-265, 4-266, 4-268, 4-311, 5-25

level of service (LOS)..... 4-211, 4-354

liquefaction train ES-2, ES-7, ES-8, 1-2, 2-3, 2-5, 2-6, 2-27, 2-29, 2-30, 4-157, 4-240, 4-253, 4-271, 4-273, 4-277, 4-287, 4-308, 4-330, 4-357, 5-24, 5-44

liquefaction ES-1, ES-2, ES-3, ES-4, ES-5, ES-6, ES-7, ES-8, ES-9, ES-10, ES-11, 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-10, 1-11, 1-12, 1-13, 1-14, 1-16, 1-17, 1-18, 2-1, 2-3, 2-5, 2-6, 2-7, 2-9, 2-10, 2-13, 2-14, 2-15, 2-17, 2-18, 2-19, 2-21, 2-24, 2-26, 2-27, 2-28, 2-29, 2-30, 2-47, 2-48, 2-49, 3-1, 3-2, 3-3, 3-5, 3-6, 3-8, 3-9, 3-10, 3-12, 3-13, 3-16, 3-17, 3-24, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-21, 4-24, 4-25, 4-27, 4-28, 4-30, 4-31, 4-36, 4-37, 4-38, 4-39, 4-40, 4-41, 4-50, 4-52, 4-53, 4-55, 4-57, 4-58, 4-59, 4-62, 4-64, 4-67, 4-69, 4-71, 4-72, 4-75, 4-76, 4-77, 4-81, 4-82, 4-83, 4-84, 4-86, 4-88, 4-89, 4-90, 4-91, 4-92, 4-93, 4-94, 4-99, 4-100, 4-102, 4-103, 4-104, 4-105, 4-107, 4-109, 4-111, 4-112, 4-118, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-127, 4-130, 4-133, 4-134, 4-135, 4-136, 4-137, 4-138, 4-140, 4-142, 4-143, 4-145, 4-146, 4-147, 4-148, 4-149, 4-150, 4-151, 4-152, 4-154, 4-155, 4-156, 4-157, 4-158, 4-162, 4-163, 4-167, 4-168, 4-169, 4-170, 4-171, 4-176, 4-177, 4-181, 4-182, 4-187, 4-188, 4-189, 4-190, 4-191, 4-195, 4-196, 4-197, 4-198, 4-199, 4-200, 4-202, 4-203, 4-204, 4-206, 4-207, 4-210, 4-211, 4-213, 4-214, 4-216, 4-217, 4-219, 4-220, 4-221, 4-223, 4-225, 4-227, 4-229, 4-231, 4-232, 4-233, 4-234, 4-236, 4-237, 4-239, 4-240, 4-241, 4-244, 4-245, 4-246, 4-247, 4-248, 4-252, 4-253, 4-254, 4-257, 4-260, 4-261, 4-263, 4-266, 4-268, 4-269, 4-270, 4-271, 4-272, 4-273, 4-274, 4-276, 4-277, 4-281, 4-282, 4-283, 4-284, 4-285, 4-287, 4-288, 4-289, 4-290, 4-291, 4-292, 4-293, 4-294, 4-295, 4-296, 4-297, 4-298, 4-308, 4-309, 4-310, 4-311, 4-323, 4-324, 4-325, 4-326, 4-327, 4-330, 4-331, 4-334, 4-337, 4-338, 4-339, 4-340, 4-342, 4-343, 4-344, 4-345, 4-346, 4-347, 4-349, 4-350, 4-352, 4-353, 4-354, 4-355, 4-356, 4-357, 4-358, 4-359, 4-361, 4-362, 5-1, 5-2, 5-3, 5-4, 5-5, 5-7, 5-8, 5-9, 5-10, 5-11, 5-12, 5-13, 5-14, 5-15, 5-16, 5-17, 5-18, 5-19, 5-20, 5-21, 5-23, 5-24, 5-25, 5-26, 5-27, 5-28, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-44, 5-45, 5-46

liquefied natural gas (LNG)..... ES-1, ES-2, ES-7, ES-8, ES-9, ES-11, 1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-8, 1-9, 1-13, 1-17, 2-1, 2-3, 2-5, 2-6, 2-7, 2-9, 2-29, 2-30, 2-31, 2-32, 2-48, 2-49, 3-1, 3-2, 3-3, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-12, 3-13, 3-16, 3-21, 4-6, 4-19, 4-20, 4-27, 4-37, 4-38, 4-39, 4-41, 4-45, 4-101, 4-104, 4-105, 4-122, 4-125, 4-133, 4-134, 4-137, 4-142, 4-143, 4-144, 4-145, 4-146, 4-147, 4-149, 4-154, 4-157, 4-158, 4-171, 4-174, 4-177, 4-182, 4-211, 4-240, 4-241, 4-257, 4-258, 4-259, 4-260, 4-261, 4-262, 4-263, 4-264, 4-265, 4-266, 4-267, 4-268, 4-269, 4-270, 4-271, 4-273, 4-274, 4-276, 4-277, 4-278, 4-283, 4-284, 4-285, 4-286, 4-288, 4-289, 4-293, 4-294, 4-295, 4-296, 4-297, 4-298, 4-299, 4-300, 4-302, 4-304, 4-305, 4-307, 4-308, 4-309, 4-310, 4-311, 4-330, 4-331, 4-332, 4-333, 4-334, 4-335, 4-336, 4-337, 4-338, 4-339, 4-341, 4-342, 4-343, 4-349, 4-352, 4-353, 4-354, 4-355, 4-356, 4-357, 4-358, 5-4, 5-5, 5-6, 5-17, 5-18, 5-20, 5-25, 5-26, 5-34, 5-35, 5-36, 5-38, 5-40, 5-41, 5-43, 5-44, 5-45, 5-46

liquefied natural gas vessel ES-2, 1-2, 1-7, 1-8, 1-9, 1-17, 2-3, 2-6, 2-32, 2-40, 2-41, 2-49, 3-12, 3-16, 4-9, 4-20, 4-27, 4-37, 4-38, 4-39, 4-40, 4-58, 4-59, 4-97, 4-98, 4-99, 4-100, 4-101, 4-102, 4-103, 4-104, 4-105, 4-107, 4-108, 4-112, 4-121, 4-122, 4-123, 4-124, 4-130, 4-133, 4-134, 4-142, 4-143, 4-144, 4-145, 4-146, 4-147, 4-148, 4-149, 4-150, 4-154, 4-164, 4-211, 4-240, 4-257, 4-258, 4-261, 4-262, 4-263, 4-264, 4-265, 4-266, 4-268, 4-269, 4-271, 4-273, 4-278, 4-291, 4-295, 4-299, 4-300, 4-304, 4-306, 4-311, 4-330, 4-341, 4-343, 4-344, 4-349, 4-352, 4-354, 5-4, 5-5, 5-7, 5-11, 5-12, 5-13, 5-14, 5-20, 5-36, 5-40, 5-42

Lost Lake 2-39, 4-36, 4-157, 4-176, 4-178, 4-180, 4-184

Louisiana Administrative Code (LAC) 4-234, 4-235

Louisiana Department of Environmental Quality (LDEQ) 1-16, 1-17, 1-19, 1-20, 4-19, 4-25, 4-26, 4-33, 4-35, 4-52, 4-61, 4-228, 4-234, 4-235, 4-239, 4-358, 4-361, 5-23

Louisiana Department of Natural Resources (LDNR) 1-16, 1-19, 1-20, 4-26, 4-27, 4-33, 4-49, 4-52, 4-61, 4-187, 5-3

Louisiana Department of Wildlife and Fisheries (LDWF) 1-10, 3-18, 4-35, 4-92, 4-95, 4-96, 4-130, 4-135, 4-139, 4-148, 4-153, 4-178, 4-179, 4-183, 4-211, 5-16

Louisiana Ecological Services Field Office of the U.S. Fish and Wildlife Service (Louisiana FWS) .4-131, 4-134, 4-135, 4-136, 4-137, 4-139, 4-142, 4-147, 4-148, 5-15, 5-32

Louisiana Natural and Scenic Rivers System (Systems Rivers) 4-35

Louisiana Natural Heritage Program (LNHP) 4-77, 4-90

Lower Neches Valley Authority (LNVA) 4-29, 4-32, 4-41, 4-102, 4-327, 4-342, 5-3

Magnuson-Stevens Fishery Conservation and Management Act (MSA) 1-4, 1-15, 1-18, 1-19, 1-20, 4-109, 4-110, 4-127, 5-15

mainline valve (MLV) ES-3, 2-13, 2-14, 2-17, 2-18, 2-20, 2-21, 2-24, 2-26, 2-47, 4-70, 4-125, 4-130, 4-161, 4-166, 4-185, 4-192, 4-219, 4-221, 4-229, 4-240, 5-15, 5-18

marine facilities for the Port Arthur Liquefaction Project 2-1, 2-5, 2-6, 2-9, 2-18, 2-21, 2-29, 2-30, 2-31, 2-47, 2-49, 3-12, 4-18, 4-19, 4-30, 4-36, 4-39, 4-40, 4-50, 4-55, 4-69, 4-81, 4-83, 4-99, 4-105, 4-157, 4-158, 4-219, 4-240, 4-277, 4-282, 4-283, 4-284, 4-330, 4-337, 4-343, 4-347, 4-349, 4-352, 4-356, 4-357, 5-4, 5-5, 5-7, 5-11, 5-18, 5-21, 5-32

Marine Mammal Protection Act of 1972 (MMPA) 4-132, 4-135, 4-148, 4-154, 4-351

Maritime Transportation Security Act of 2002 (MTSA) 1-7, 4-263, 4-268, 4-309, 5-44

Market Hub Partners – Egan (Egan) ES-3, 1-3, 2-15, 2-17, 2-20, 2-26, 3-9, 4-12, 4-34, 4-56, 4-229, 4-249, 4-256

material offloading facility (MOF) ES-2, 1-2, 1-4, 2-3, 2-6, 2-7, 2-9, 2-21, 2-29, 2-30, 2-49, 4-18, 4-30, 4-36, 4-38, 4-40, 4-50, 4-55, 4-81, 4-99, 4-101, 4-102, 4-104, 4-105, 4-112, 4-114, 4-121, 4-122, 4-128, 4-157, 4-177, 4-211, 4-249, 4-283, 4-350, 5-2, 5-4, 5-5, 5-7, 5-11, 5-14, 5-15, 5-20, 5-32

Maximum Contaminant Level (MCL) 4-26

maximum envelope of water (MEOW) 4-290

Memorandum of Understanding (MOU) 1-9, 4-88, 4-257, 4-258, 4-261, 4-288, 4-312

meter station ES-3, ES-8, 1-1, 1-2, 1-3, 1-4, 2-1, 2-10, 2-13, 2-14, 2-15, 2-17, 2-19, 2-20, 2-21, 2-24, 2-26, 2-27, 2-47, 3-24, 4-9, 4-22, 4-33, 4-34, 4-48, 4-63, 4-69, 4-70,

4-71, 4-75, 4-84, 4-90, 4-91, 4-130, 4-136, 4-160, 4-161, 4-166, 4-167, 4-174, 4-178, 4-181, 4-185, 4-192, 4-219, 4-220, 4-221, 4-222, 4-229, 4-234, 4-235, 4-237, 4-238, 4-240, 4-249, 4-255, 4-256, 4-302, 4-313, 4-316, 4-333, 4-347, 5-18, 5-21, 5-22, 5-24, 5-38

methane (CH_4) 4-228, 4-273, 4-305, 4-312, 4-325, 4-361, 5-41

Migratory Bird Treaty Act (MBTA) 1-15, 4-88, 4-89, 4-91, 4-135

migratory birds 1-11, 1-15, 4-88, 4-89, 4-90, 4-91, 4-92, 4-132, 4-151, 4-153, 4-176, 5-10, 5-11

million tons per annum (MTPA) ES-2, 1-2, 1-8, 2-3, 3-5, 3-6

National Ambient Air Quality Standards (NAAQS) ES-7, 4-227, 4-228, 4-229, 4-230, 4-231, 4-232, 4-239, 4-244, 4-245, 4-246, 4-358

National Emission Standard for Hazardous Air Pollutants (NESHAPs) 4-233

National Environmental Policy Act of 1969 (NEPA) ES-1, 1-1, 1-4, 1-5, 1-6, 1-9, 1-10, 1-13, 1-14, 1-15, 1-16, 3-1, 3-6, 3-7, 4-109, 4-129, 4-215, 4-257, 4-291, 4-311, 4-324, 4-327, 4-330, 4-337, 4-338, 5-24

National Fire Protection Association (NFPA) 1-9, 2-5, 2-30, 2-48, 3-12, 4-7, 4-258, 4-259, 4-260, 4-271, 4-275, 4-276, 4-278, 4-279, 4-280, 4-281, 4-282, 4-284, 4-285, 4-289, 4-292, 4-293, 4-302, 4-306, 4-308, 5-38, 5-41, 5-44

National Historic Preservation Act (NHPA) ES-11, 1-4, 1-15, 1-18, 1-19, 1-204-225, 4-355, 5-23

National Marine Fisheries Service (NMFS) ES-4, 1-11, 1-15, 1-18, 1-19, 1-20, 4-93, 4-95, 4-101, 4-105, 4-107, 4-109, 4-110, 4-111, 4-112, 4-116, 4-117, 4-122, 4-125, 4-126, 4-127, 4-128, 4-129, 4-130, 4-131, 4-133, 4-134, 4-135, 4-142, 4-143, 4-144, 4-145, 4-146, 4-147, 4-149, 4-150, 4-154, 4-351, 5-15, 5-16

National Oceanic and Atmospheric Administration (NOAA) 1-18, 1-19, 1-20, 4-8, 4-9, 4-69, 4-112, 4-116, 4-186, 4-227, 4-289, 4-290, 4-321, 4-349, 4-350, 4-351, 4-360

National Park Service (NPS) 4-144

National Pollutant Discharge Elimination System (NPDES) 1-9, 1-16, 1-18, 1-19, 1-20, 4-40, 4-108, 4-126, 4-181

National Register of Historic Places (NRHP) 1-16, 4-219, 4-220, 4-221, 4-222, 4-225, 4-325, 5-21, 5-22

National Sediment Quality Survey (NSQS) 4-17

National Wetlands Inventory (NWI) 3-1, 3-16, 4-52, 4-54

Native American tribes ES-1, ES-4, ES-5, ES-10, ES-11, 1-10, 1-11, 1-12, 1-13, 1-17, 1-20, 3-24, 4-63, 4-170, 4-182, 4-215, 4-221, 4-222, 4-223, 4-224, 4-225, 5-22, 5-23, 5-27, 5-30, 5-31, 5-33

Natural Gas Act (NGA) ES-1, 1-1, 1-3, 1-4, 1-5, 1-8, 1-9, 1-14, 1-16, 1-17, 3-3, 3-8, 3-17, 4-88, 4-169, 4-257, 4-297, 4-311, 5-24, 5-26, 5-28

Natural Gas Pipeline Company of America (NGPL) ES-3, 1-2, 2-10, 2-13, 2-20, 2-24, 2-27, 3-9, 4-12, 4-32, 4-48, 4-56, 4-63, 4-69, 4-70, 4-160, 4-161, 4-174, 4-178, 4-185, 4-220, 4-229, 4-249, 4-255, 4-313, 4-316

Natural Resources Conservation Service (NRCS) 2-31, 4-12, 4-13, 4-14, 4-20, 4-21, 4-22, 4-23, 4-71, 4-75, 4-76, 4-87, 4-93, 5-9

Appendix U

Subject Index

Neches River ES-11, 1-7, 2-39, 3-18, 4-11, 4-32, 4-33, 4-47, 4-95, 4-96, 4-112, 4-120, 4-268, 4-327, 4-332

New Source Performance Standards (NSPS) 4-233

New Source Review (NSR) 1-18, 4-232, 5-23

nitrogen dioxide (NO_2) 4-230, 4-243, 4-244, 4-245, 4-246, 4-358

nitrogen oxides (NO_X) ES-7, 2-9, 4-227, 4-228, 4-231, 4-232, 4-233, 4-237, 4-238, 4-240, 4-241, 4-242, 5-23

nitrous oxide (N_2O) 4-228

noise sensitive area (NSA) ES-7, ES-8, 4-216, 4-246, 4-247, 4-248, 4-249, 4-250, 4-251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-325, 4-359, 5-24, 5-33, 5-34

Nonattainment New Source Review (NNSR) 4-231, 4-234

nonjurisdictional 1-14, 1-18, 2-1, 2-18, 2-19, 2-26, 2-47, 4-2, 4-14, 4-15, 4-16, 4-17, 4-19, 4-23, 4-30, 4-36, 4-49, 4-53, 4-55, 4-57, 4-64, 4-69, 4-75, 4-76, 4-77, 4-82, 4-88, 4-89, 4-90, 4-99, 4-109, 4-112, 4-118, 4-120, 4-126, 4-130, 4-156, 4-167, 4-168, 4-170, 4-174, 4-181, 4-186, 4-188, 4-189, 4-195, 4-201, 4-206, 4-209, 4-213, 4-219, 4-323, 4-326, 4-337, 4-338, 4-339, 4-340, 4-348, 4-353, 4-357, 5-2, 5-4, 5-9, 5-11, 5-16, 5-21

Notice of Intent (NOI) ES-4, 1-10, 1-11, 4-223

Occupational Safety and Health Administration (OSHA) 2-32, 4-65, 4-66, 4-247, 4-362

Office for Coastal Management (OCM) 4-186, 4-187

Office of Energy Projects (OEP) ES-1, 1-1, 2-37, 4-3, 4-46, 4-132, 4-211, 4-222, 4-225, 4-226, 4-252, 4-298, 4-308, 4-309, 4-311, 5-16, 5-27, 5-28, 5-29, 5-31, 5-32, 5-33, 5-35, 5-44, 5-46

operation and maintenance ES-1, ES-2, ES-3, ES-5, ES-6, ES-7, ES-8, ES-9, ES-10, ES-11, 1-1, 1-2, 1-3, 1-5, 1-9, 1-14, 1-16, 1-17, 2-1, 2-3, 2-5, 2-7, 2-9, 2-10, 2-13, 2-14, 2-17, 2-19, 2-21, 2-24, 2-25, 2-26, 2-27, 2-29, 2-30, 2-31, 2-32, 2-34, 2-36, 2-37, 2-38, 2-43, 2-45, 2-48, 2-49, 2-50, 3-2, 3-12, 3-16, 3-17, 3-18, 3-20, 4-1, 4-3, 4-5, 4-6, 4-7, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-19, 4-20, 4-21, 4-22, 4-23, 4-26, 4-27, 4-28, 4-29, 4-30, 4-33, 4-36, 4-37, 4-38, 4-39, 4-40, 4-41, 4-42, 4-43, 4-44, 4-45, 4-49, 4-50, 4-51, 4-55, 4-57, 4-58, 4-59, 4-60, 4-61, 4-62, 4-63, 4-64, 4-69, 4-71, 4-72, 4-73, 4-75, 4-76, 4-78, 4-82, 4-84, 4-85, 4-86, 4-87, 4-88, 4-90, 4-92, 4-95, 4-99, 4-100, 4-102, 4-103, 4-104, 4-105, 4-106, 4-107, 4-108, 4-109, 4-111, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-130, 4-141, 4-143, 4-145, 4-147, 4-148, 4-149, 4-154, 4-155, 4-157, 4-158, 4-159, 4-162, 4-163, 4-164, 4-165, 4-168, 4-169, 4-170, 4-172, 4-173, 4-174, 4-176, 4-177, 4-178, 4-179, 4-180, 4-181, 4-182, 4-184, 4-186, 4-189, 4-199, 4-201, 4-202, 4-208, 4-209, 4-210, 4-211, 4-212, 4-213, 4-214, 4-215, 4-216, 4-217, 4-219, 4-227, 4-228, 4-231, 4-232, 4-234, 4-235, 4-236, 4-239, 4-240, 4-243, 4-244, 4-246, 4-247, 4-248, 4-249, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-261, 4-264, 4-268, 4-269, 4-270, 4-271, 4-272, 4-273, 4-274, 4-275, 4-276, 4-278, 4-279, 4-280, 4-281, 4-282, 4-284, 4-286, 4-287, 4-290, 4-291, 4-292, 4-295, 4-298, 4-300, 4-301, 4-303, 4-305, 4-306, 4-307, 4-308, 4-309, 4-310, 4-312, 4-313, 4-316, 4-317, 4-318, 4-319, 4-320, 4-322, 4-325, 4-326, 4-338, 4-340, 4-342, 4-343, 4-344, 4-345, 4-346, 4-347, 4-348, 4-349, 4-350, 4-351, 4-352, 4-353, 4-354, 4-355, 4-356, 4-357, 4-358, 4-359, 4-361, 5-1, 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, 5-10, 5-11, 5-12, 5-13, 5-14, 5-16, 5-17, 5-18, 5-19, 5-20, 5-21, 5-23, 5-24, 5-25, 5-26, 5-27, 5-28, 5-30, 5-34, 5-35, 5-36, 5-37, 5-39, 5-41, 5-42, 5-43, 5-44, 5-45, 5-46

oysters 1-12, 2-41, 3-18, 4-67, 4-93, 4-95, 4-97, 4-98, 4-99, 4-104, 4-107, 4-108, 4-115, 5-14

palustrine emergent wetland (PEM) 2-21, 3-13, 3-16, 4-53, 4-54, 4-55, 4-56, 4-57, 4-58, 4-60, 4-61, 4-62, 4-63, 4-64, 4-67, 4-68, 4-69, 4-71, 4-72, 4-79, 4-80, 4-81, 4-82, 4-155, 4-158, 4-163, 4-169, 4-345, 5-7, 5-8

palustrine forested wetland (PFO) 3-16, 4-53, 4-54, 4-56, 4-57, 4-60, 4-61, 4-62, 4-63, 4-64, 4-68, 4-71, 4-79, 4-80, 4-82, 4-158, 4-164, 4-345, 5-8, 5-26

palustrine scrub-shrub wetland (PSS) 2-21, 3-16, 4-53, 4-54, 4-55, 4-56, 4-57, 4-60, 4-61, 4-62, 4-63, 4-64, 4-67, 4-68, 4-69, 4-71, 4-79, 4-80, 4-81, 4-82, 4-155, 4-158, 4-163, 4-345, 5-7, 5-8

palustrine unconsolidated bottom (PUB) 3-16, 4-53, 4-54, 4-56, 4-57, 4-60, 4-68, 4-82, 4-158

particulate matter 4-227, 4-232, 4-233, 4-235, 4-239, 4-241, 4-242, 4-356

Permit By Rule (PBR) 4-234

pig launcher/receiver ES-3, 2-13, 2-14, 2-17, 2-18, 2-24, 2-26, 2-27, 2-37, 2-47, 2-49, 3-24, 4-75, 4-174, 4-178, 4-185, 4-192, 4-221, 4-249, 4-302, 5-18, 5-38

Pine Prairie Energy Center (Pine Prairie) ES-3, 1-3, 2-15, 2-17, 2-20, 2-26, 2-27 3-9, 4-12, 4-34, 4-56, 4-70, 4-71, 4-166, 4-229, 4-249, 4-256, 4-314

Pioneer Dock ES-2, ES-6, 1-2, 1-4, 2-3, 2-7, 2-9, 2-21, 2-29, 4-30, 4-36, 4-38, 4-40, 4-50, 4-55, 4-81, 4-99, 4-101, 4-112, 4-114, 4-128, 4-157, 4-248, 4-350, 5-4, 5-5, 5-7, 5-11, 5-15

Pipeline and Hazardous Materials Safety Administration (PHMSA) ES-1, ES-4, 1-6, 1-9, 1-11, 4-7, 4-260, 4-261, 4-292, 4-293, 4-294, 4-295, 4-312, 4-318, 4-319, 5-1

piping and instrument diagrams (P&IDs) 4-300, 4-301, 4-302, 4-309, 5-36, 5-37, 5-38, 5-44

pollinators 4-86, 4-92, 4-93

polychlorinated biphenyls (PCBs) 4-33, 4-34, 4-181

Port Arthur Canal ES-2, ES-5, ES-7, 1-1, 2-1, 2-3, 2-7, 2-9, 2-10, 2-18, 2-21, 2-29, 2-30, 2-31, 2-39, 2-47, 2-49, 3-12, 3-16, 4-20, 4-30, 4-31, 4-36, 4-37, 4-38, 4-39, 4-40, 4-41, 4-47, 4-50, 4-59, 4-90, 4-93, 4-94, 4-95, 4-99, 4-100, 4-101, 4-102, 4-103, 4-104, 4-105, 4-107, 4-108, 4-112, 4-118, 4-120, 4-121, 4-122, 4-123, 4-124, 4-130, 4-140, 4-143, 4-155, 4-157, 4-158, 4-170, 4-176, 4-177, 4-178, 4-180, 4-181, 4-182, 4-187, 4-211, 4-337, 4-340, 4-343, 4-344, 4-345, 4-346, 4-349, 4-352, 4-354, 5-3, 5-4, 5-5, 5-6, 5-7, 5-11, 5-12, 5-13, 5-14, 5-17

potential to emit 4-234, 4-358

Prevention of Significant Deterioration (PSD) 1-17, 1-18, 4-231, 4-232, 4-234, 4-243, 4-325, 4-357, 4-358, 4-361, 5-23

prime farmland 4-12, 4-13, 4-14, 4-22, 4-23, 5-2

process flow diagrams (PFDs) 4-300, 5-36

property values 4-214, 4-325

purpose and need ES-10, 3-2, 3-3, 3-10, 3-24, 5-27

push-pull method 2-25, 2-43, 4-9, 4-28, 4-44, 4-45, 4-54, 4-60, 4-69, 4-106, 4-118, 4-119, 4-120, 4-152, 4-169, 4-183, 5-17

Railroad Commission of Texas (Texas RRC) 1-18, 1-19, 1-20, 4-18, 4-41, 4-49, 4-52, 4-58, 4-61, 4-102, 4-187, 5-3, 5-6, 5-32

residences/residential areas ES-5, ES-9, 2-34, 2-36, 2-37, 2-45, 2-46, 2-49, 3-2, 3-5, 3-20, 4-144, 4-158, 4-159, 4-163, 4-164, 4-165, 4-171, 4-172, 4-173, 4-174, 4-179, 4-182, 4-184, 4-185, 4-186, 4-214, 4-220, 4-222, 4-228, 4-247, 4-249, 4-260, 4-265, 4-266, 4-326, 4-336, 4-341, 4-342, 4-343, 4-345, 4-346, 4-348, 4-350, 4-351, 4-352, 4-353, 4-355, 4-357, 5-16, 5-17, 5-18, 5-22, 5-25

residential construction plans (RCPs) 2-29, 2-46, 3-20, 4-172, 4-173, 4-174, 5-16

restoration ES-6, 2-18, 2-21, 2-24, 2-26, 2-31, 2-32, 2-34, 2-36, 2-37, 2-38, 2-41, 2-48, 2-49, 2-50, 3-20, 4-7, 4-10, 4-16, 4-18, 4-21, 4-22, 4-23, 4-29, 4-42, 4-49, 4-58, 4-59, 4-61, 4-62, 4-63, 4-71, 4-72, 4-73, 4-75, 4-77, 4-78, 4-85, 4-86, 4-91, 4-93, 4-97, 4-98, 4-107, 4-108, 4-110, 4-112, 4-121, 4-122, 4-125, 4-126, 4-127, 4-128, 4-150, 4-153, 4-154, 4-157, 4-162, 4-163, 4-165, 4-168, 4-173, 4-174, 4-175, 4-176, 4-177, 4-179, 4-180, 4-181, 4-182, 4-183, 4-184, 4-185, 4-186, 4-220, 4-316, 4-326, 4-339, 4-340, 4-342, 4-344, 4-346, 4-347, 4-348, 4-349, 4-350, 4-351, 5-1, 5-3, 5-7, 5-8, 5-9, 5-14, 5-15, 5-16, 5-17, 5-18, 5-28, 5-29, 5-30, 5-31

revegetation ES-6, 2-28, 2-37, 2-44, 2-50, 4-12, 4-16, 4-17, 4-22, 4-23, 4-51, 4-55, 4-60, 4-61, 4-63, 4-64, 4-71, 4-72, 4-73, 4-75, 4-76, 4-77, 4-85, 4-87, 4-88, 4-92, 4-93, 4-106, 4-125, 4-127, 4-154, 4-168, 4-183, 4-186, 4-340, 4-348, 4-353, 5-2, 5-8, 5-9, 5-10

Risk Management Plan (RMP) 4-291, 4-296

Rivers and Harbors Act of 1899 (RHA) 1-6, 1-15, 1-16, 4-31, 4-33, 4-34, 4-37, 4-344, 5-4

Round Lake 2-6, 2-7, 2-10, 2-32, 3-16, 4-30, 4-31, 4-36, 4-40, 4-41, 4-49, 4-55, 4-64, 4-90, 4-94, 4-99, 4-109, 4-112, 4-118, 4-126, 4-176, 4-178, 4-184, 5-4, 5-6, 5-17

Sabine Lake ES-10, 2-9, 2-25, 2-39, 2-41, 2-43, 3-18, 3-24, 4-10, 4-22, 4-29, 4-30, 4-33, 4-34, 4-35, 4-44, 4-45, 4-46, 4-47, 4-48, 4-58, 4-67, 4-68, 4-69, 4-75, 4-87, 4-93, 4-94, 4-95, 4-96, 4-97, 4-99, 4-106, 4-107, 4-108, 4-112, 4-117, 4-120, 4-125, 4-130, 4-133, 4-134, 4-143, 4-144, 4-145, 4-147, 4-150, 4-164, 4-178, 4-180, 4-181, 4-198, 4-201, 4-212, 4-221, 4-222, 4-224, 4-266, 5-6, 5-7, 5-14, 5-15, 5-20, 5-22, 5-26

Sabine Pass 1-13, 2-18, 2-39, 2-49, 3-5, 3-6, 3-8, 4-9, 4-32, 4-33, 4-36, 4-47, 4-48, 4-95, 4-96, 4-108, 4-145, 4-171, 4-174, 4-177, 4-180, 4-196, 4-207, 4-208, 4-213, 4-214, 4-266, 4-290, 4-296, 4-323, 4-330, 4-338, 4-339, 4-342, 4-343, 4-347, 4-349, 4-352, 4-353, 4-355, 4-356, 4-357, 5-6, 5-10, 5-17

Sabine-Neches Navigational District (SNND) 2-9, 2-29, 2-31, 4-20, 4-30, 4-37, 4-38, 4-58, 4-71, 4-82, 4-105, 4-112, 4-155, 4-158, 4-170, 4-211, 4-335, 4-344, 4-354, 5-5, 5-7, 5-9

Sabine-Neches Waterway Canal Improvement Project (CIP) 4-335, 4-343, 4-345, 4-356, 4-357, 4-358, 4-359

Sabine-Neches Waterway 2-1

safe shutdown earthquake (SSE) 4-286

Safe Water Drinking Act (SWDA) 4-25, 4-26

safety instrument system (SIS) 4-300, 4-303, 4-308, 5-36, 5-39, 5-43

Salt Bayou 4-5, 4-32, 4-55, 4-73, 4-157, 4-177, 4-327, 4-330, 4-335, 4-336, 4-337

Secretary of the Commission (Secretary) 4-3, 4-18, 4-46, 4-48, 4-49, 4-130, 4-142, 4-187, 4-211, 4-222, 4-225, 4-226, 4-252, 4-253, 4-254, 4-255, 4-298, 4-309, 5-2, 5-3, 5-15, 5-27, 5-28, 5-29, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-44

Section 106 of the NHPA ES-11, 1-4, 1-15, 1-16, 1-18, 1-19, 1-20, 4-219, 4-225, 4-355, 5-23

Appendix U

Subject Index

section 7 of the ESA ES-1, ES-11, 1-1, 1-3, 1-4, 1-5, 1-14, 1-15, 1-18, 1-19, 1-20, 3-8, 3-17, 4-129, 4-130, 4-131, 4-132, 4-136, 4-137, 4-138, 4-139, 4-141, 4-142, 4-146, 4-147, 4-149, 4-150, 4-169, 4-263, 4-285, 4-350, 5-15, 5-28, 5-32

seismic cone penetration tests (SCPTs) 4-283

significant impact levels 4-243, 4-244, 4-245, 4-246, 4-357, 4-358

slopes 4-7, 4-13, 4-16, 4-21, 4-65, 4-284, 4-291

Soil Survey Geographic (SSURGO) 4-12, 4-13

sole source aquifer (SSA) 4-25, 4-29, 4-342, 5-3

springs 2-34, 4-7, 4-25, 4-26, 4-89, 4-117, 4-141, 4-178, 4-196, 4-198, 4-227, 4-341, 4-360, 5-4, 5-19

State Highway 87 (SH 87) ES-2, ES-7, 1-14, 2-1, 2-3, 2-7, 2-14, 2-18, 2-21, 2-26, 2-27, 2-39, 2-47, 4-2, 4-14, 4-15, 4-16, 4-17, 4-19, 4-23, 4-30, 4-36, 4-49, 4-64, 4-67, 4-69, 4-82, 4-88, 4-130, 4-157, 4-168, 4-169, 4-170, 4-176, 4-181, 4-182, 4-184, 4-186, 4-195, 4-201, 4-209, 4-210, 4-211, 4-213, 4-219, 4-237, 4-292, 4-294, 4-295, 4-304, 4-323, 4-337, 4-352, 4-354, 5-2, 5-18, 5-19, 5-21, 5-40

State Historic Preservation Office (SHPO) 1-18, 1-19, 1-20, 4-219, 4-220, 4-221, 4-222, 4-223, 4-225, 4-226, 4-356, 5-21, 5-22, 5-23, 5-33

Still Water Elevation (SWEL) 4-8, 4-289, 4-290

storage tanks ES-2, ES-7, 1-2, 1-9, 2-3, 2-5, 2-6, 2-7, 2-9, 2-29, 2-30, 2-31, 3-5, 4-6, 4-17, 4-19, 4-27, 4-40, 4-41, 4-157, 4-181, 4-182, 4-233, 4-240, 4-241, 4-258, 4-260, 4-270, 4-271, 4-272, 4-273, 4-276, 4-277, 4-278, 4-283, 4-284, 4-285, 4-288, 4-289, 4-294, 4-295, 4-296, 4-300, 4-302, 4-307, 4-308, 4-309, 4-310, 4-352, 4-361, 5-4, 5-18, 5-36, 5-37, 5-38, 5-43, 5-44, 5-45, 5-46

Stormwater Pollution Prevention Plans (*SWPPP*) 4-40, 4-104, 4-127, 4-152

subsidence 4-3, 4-4, 4-6, 4-7, 4-8, 4-11, 4-19, 4-22, 4-26, 4-72, 4-81, 4-282, 4-284, 4-285, 4-290, 4-298, 4-360, 5-1, 5-35

sulfur dioxide (SO_2) 4-227, 4-230, 4-232, 4-233, 4-237, 4-238, 4-241, 4-242, 4-243, 4-244, 4-245, 4-358

supervisory control and data acquisition (SCADA) 2-14, 2-18, 2-50

taxes 1-13, 4-189, 4-197, 4-199, 4-201, 4-202, 4-214, 4-325, 4-326, 4-353, 5-19

Taylor Bayou 2-38, 4-32, 4-33, 4-47, 4-48, 4-95, 4-96, 4-108, 4-112, 4-120, 4-177, 4-181, 4-327

Tennessee Gas Pipeline Company (TGP) ES-3, 1-3, 2-15, 2-17, 2-20, 2-26, 2-27, 3-9, 4-12, 4-34, 4-56, 4-70, 4-166, 4-222, 4-229, 4-249, 4-256, 4-314, 5-22

Texas Coastal Ecological Services Field Office of the FWS (Texas FWS) 4-91, 4-131, 4-135, 4-136, 4-137, 4-138

Texas Coastal Management Program (TCMP) 4-52, 4-187

Texas Commission on Environmental Quality (TCEQ) 1-10, 1-17, 1-18, 4-17, 4-18, 4-25, 4-31, 4-33, 4-35, 4-52, 4-102, 4-227, 4-228, 4-232, 4-236, 4-239, 4-240, 4-358, 5-3, 5-23, 5-32

Texas Department of Transportation (TDOT) ES-4, 1-11, 1-18, 1-19, 2-18, 2-26, 2-47 4-23, 4-64, 4-67, 4-76, 4-170, 4-195, 5-9

Appendix U

Subject Index

Texas Eastern Transmission Company (TETCO) ES-3, 1-2, 1-3, 2-10, 2-13, 2-15, 2-17, 2-20, 2-24, 2-26, 2-27, 3-9, 4-12, 4-32, 4-34, 4-48, 4-56, 4-69, 4-70, 4-160, 4-161, 4-166, 4-185, 4-220, 4-229, 4-249, 4-254, 4-255, 4-256, 4-313, 4-314, 4-316, 4-332, 4-342, 4-348

Texas Gas Transmission, LLC (TGT) ES-3, 1-3, 2-15, 2-17, 2-20, 2-26, 3-9, 4-229, 4-249, 4-256

Texas General Land Office (TGLO).....ES-4, 1-11, 1-16, 1-18, 1-19, 1-20, 4-52, 4-58, 4-61, 4-187, 4-188, 5-17, 5-32

Texas Parks and Wildlife Department (TPWD) ES-4, 1-10, 1-11, 1-18, 1-19, 1-20 2-9, 2-32, 2-41, 4-17, 4-18, 4-20, 4-25, 4-31, 4-35, 4-46, 4-55, 4-62, 4-67, 4-68, 4-71, 4-72, 4-81, 4-89, 4-90, 4-92, 4-94, 4-95, 4-96, 4-97, 4-98, 4-99, 4-107, 4-108, 4-112, 4-115, 4-116, 4-132, 4-135, 4-137, 4-140, 4-141, 4-150, 4-151, 4-157, 4-170, 4-176, 4-177, 4-178, 4-261, 5-3, 5-14, 5-16

Texas Water Development Board (TWDB).....4-24, 4-25, 4-26, 4-227

tie-in pipeline ES-3, 1-1, 1-2, 1-3, 2-1, 2-13, 2-14, 2-15, 2-17, 2-20, 2-21, 2-24, 2-25, 2-26, 2-28, 2-37, 2-41, 2-43, 2-47, 3-8, 4-7, 4-12, 4-34, 4-50, 4-51, 4-65, 4-70, 4-108, 4-165, 4-167, 4-248, 4-249, 4-301, 4-314, 4-330, 5-37

Traditional Navigable Water (TNW).....4-30

U.S. Army Corps of Engineers (USACE).....ES-1, ES-4, ES-6, ES-10, 1-4, 1-6, 1-7, 1-9, 1-10, 1-11, 1-15, 1-16, 1-18, 1-19, 1-20, 2-9, 2-32, 2-49, 4-7, 4-17, 4-18, 4-20, 4-22, 4-30, 4-31, 4-33, 4-34, 4-36, 4-37, 4-50, 4-52, 4-53, 4-55, 4-58, 4-59, 4-61, 4-62, 4-64, 4-71, 4-72, 4-88, 4-99, 4-105, 4-112, 4-121, 4-125, 4-127, 4-128, 4-130, 4-156, 4-158, 4-161, 4-187, 4-188, 4-211, 4-335, 4-340, 4-343, 4-344, 4-345, 4-346, 4-350, 4-354, 5-1, 5-3, 5-7, 5-8, 5-9, 5-17, 5-32

U.S. Census Bureau 4-190, 4-191, 4-193, 4-196, 4-198, 4-200, 4-203, 4-204, 4-205, 4-215

U.S. Coast Guard (USCG).....ES-1, ES-4, ES-8, ES-11, 1-6, 1-7, 1-11, 1-17, 1-18 2-6, 2-48, 2-49, 3-2, 4-38, 4-103, 4-123, 4-213, 4-257, 4-261, 4-262, 4-263, 4-264, 4-265, 4-266, 4-268, 4-269, 4-270, 4-297, 4-299, 4-309, 4-311, 4-343, 4-354, 5-1, 5-12, 5-25, 5-35, 5-44

U.S. Department of Agriculture (USDA) 1-10, 2-31, 4-12, 4-13, 4-14, 4-82, 4-201

U.S. Department of Defense (DOD)..... 1-10, 1-16, 4-258

U.S. Department of Energy (DOE)..... ES-1, 1-3, 1-6, 1-8, 1-9, 1-18, 3-3, 3-9, 4-257, 4-273, 4-289, 4-295, 5-1

U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) 2-32, 4-65, 4-66, 4-247, 4-362

U.S. Department of the Interior, National Park Service (NPS) 4-144

U.S. Department of Transportation (DOT).....ES-1, ES-4, ES-8, ES-9, ES-11, 1-6, 1-9, 1-11, 2-14, 2-18, 2-30, 2-32, 2-34, 2-36, 2-45, 2-47, 2-48, 2-49, 3-2, 3-12, 3-24, 4-5, 4-11, 4-48, 4-64, 4-65, 4-66, 4-183, 4-257, 4-258, 4-259, 4-260, 4-261, 4-269, 4-270, 4-276, 4-277, 4-278, 4-279, 4-282, 4-284, 4-285, 4-288, 4-292, 4-293, 4-294, 4-295, 4-296, 4-311, 4-312, 4-314, 4-315, 4-316, 4-317, 4-318, 4-319, 4-320, 4-321, 4-322, 4-362, 5-1, 5-8, 5-24, 5-25

U.S. Environmental Protection Agency (EPA).....ES-1, ES-4, 1-1, 1-6, 1-9, 1-10, 1-11, 1-13, 1-16, 1-17, 1-18, 1-19, 2-43, 3-10, 4-18, 4-19, 4-25, 4-26, 4-29, 4-31, 4-33, 4-34, 4-40, 4-52, 4-181, 4-214, 4-215, 4-227, 4-228, 4-229, 4-232, 4-233, 4-234, 4-236, 4-240, 4-243, 4-244, 4-245, 4-247, 4-291, 4-296, 4-324, 4-325, 4-342, 4-343, 4-356, 4-361, 5-1, 5-2, 5-3, 5-32

Appendix U

Subject Index

U.S. Fish and Wildlife Service (FWS).....ES-4, 1-11, 1-15, 1-18, 1-19, 1-20, 3-16, 3-18, 3-20, 4-52, 4-77, 4-87, 4-88, 4-89, 4-91, 4-92, 4-93, 4-105, 4-129, 4-131, 4-132, 4-133, 4-135, 4-136, 4-137, 4-138, 4-139, 4-140, 4-141, 4-142, 4-143, 4-147, 4-148, 4-149, 4-178, 4-198, 4-350, 4-351, 5-15, 5-16, 5-32

U.S. Geological Survey (USGS).....3-1, 3-16, 3-21, 4-2, 4-4, 4-5, 4-7, 4-24, 4-26, 4-27, 4-39, 4-67, 4-68, 4-285, 4-286, 4-287, 4-291, 4-292, 4-294, 4-326, 4-342, 4-347, 5-3

Unanticipated Discoveries Plan ES-5, ES-11, 1-12, 2-28, 4-222, 4-223, 4-224, 4-225, 5-22, 5-33

volatile organic compounds (VOCs).....ES-7, 4-227, 4-228, 4-231, 4-232, 4-233, 4-237, 4-238, 4-239, 4-240, 4-241, 4-242, 5-23

Waters of the United States (WOUS) ES-10, 1-6, 1-7, 4-31, 4-33, 4-34, 4-39, 4-52, 4-58, 4-64, 4-103, 4-109, 4-345, 4-346

Waterway Suitability Assessment (WSA) ES-8, 1-7, 1-18, 4-264, 4-265, 4-266, 4-268, 4-311, 5-25

wellhead protection area (WHPA).....4-25

Wildlife Management Area (WMA)..... ES-4, 1-11, 2-9, 2-32, 4-18, 4-20, 4-31, 4-37, 4-55, 4-58, 4-62, 4-71, 4-73, 4-81, 4-83, 4-92, 4-95, 4-96, 4-100, 4-121, 4-156, 4-157, 4-169, 4-175, 4-176, 4-177, 4-220, 5-7, 5-9, 5-10, 5-17, 5-21