

FEDERAL ENERGY REGULATORY COMMISSION

Office of Energy Projects

Division of Gas - Environment and Engineering

**GUIDELINES FOR REPORTING ON CULTURAL
RESOURCES INVESTIGATIONS FOR NATURAL GAS
PROJECTS**

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Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
DG2E	Division of Gas Environment and Engineering
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
FERC	Federal Energy Regulatory Commission
MP	milepost
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NGA	Natural Gas Act
NGPA	Natural Gas Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OEP	Office of Energy Projects
Section 106	Section 106 of the National Historic Preservation Act
SHPO	State Historic Preservation Officer
SN	station number
THPO	Tribal Historic Preservation Officer
Tribe	Federally Recognized Tribe
USGS	U.S. Geological Survey

1.0 INTRODUCTION

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires that the Federal Energy Regulatory Commission (FERC or Commission) take into account the effects of its *undertakings*¹ on properties on or eligible for listing on the *National Register of Historic Places* (NRHP) and afford the *Advisory Council on Historic Preservation* (ACHP) an opportunity to comment on its undertakings. The ACHP's regulations for implementing Section 106 can be found at Title 36 Code of Federal Regulations [CFR] Part 800 (revised most recently in August 2004).

These guidelines complement the FERC's *Office of Energy Projects (OEP), Division of Gas-Environment and Engineering's (DG2E) Guidance Manual for Environmental Report Preparation for Applications Filed under the Natural Gas Act* (application guidelines)² and are intended to assist *project sponsors (companies)* and their contractors in preparing report filings under our regulations for interstate natural gas projects and subsequently Section 106 purposes. **Project sponsors proposing to construct natural gas facilities projects under the Commission's jurisdiction must assist the Commission in meeting its obligations under the NHPA.** Part 800.2(a) (3) of NHPA allows for the use of services provided by project sponsors or their contractors to provide information, analyses, and recommendations to assist the FERC staff in the process of complying with Section 106. A project sponsor can initiate communications with potential *consulting parties*; however, the FERC remains legally responsible for all findings and determinations under Section 106.

The following sections provide further guidance on cultural resource report writing and compliance for the FERC's environmental review process. Section 10.1 provides definitions for commonly used terms (identified in italics the first use of the term in the document). Section 10.2 highlights applicable laws and regulation.

2.0 PLANNED OR PROPOSED PROJECT PROCESSES

There are two ways that project sponsors can develop an application for planned or proposed interstate natural gas projects: (1) using our³ pre-filing environmental review process and then filing an application or (2) filing an application without using our pre-filing process. Pre-filing is required for all liquefied natural gas (LNG) projects, but is voluntary for all other natural gas projects. Our pre-filing environmental review process, which includes the involvement of FERC staff, allows for the earliest communications with consulting parties. Procedures for using our pre-filing environmental review process are outlined in FERC's regulations at 18 CFR Part 157.21.

To assist the FERC in complying with Section 106, a project sponsor preparing an application under Sections 3 and/or 7 of the Natural Gas Act (NGA) should follow the

¹ All terms italicized in this document are defined in section 10.1.

² A copy of the guidance is available through <https://elibrary.ferc.gov>, under Docket Number AD16-3.

³ The pronouns "our," "we," and "us," refer to the environmental staff of the FERC's Office of Energy Projects, Division of Gas- Environment and Engineering.

procedures at 18 CFR Part 380.12, 380.14, and appendix A to Part 380, and all the steps in the application guidelines.

Projects constructed under the Natural Gas Policy Act (NGPA) or the NGA blanket certificate program must comply with the Commission's regulations found at 18 CFR 157.206 and Appendix II of Subpart F. To the extent feasible, project sponsors should coordinate *cultural resources* investigations with other environmental studies conducted to assist the Commission in its obligations to comply with the National Environmental Policy Act (NEPA).

Project sponsors may seek to abandon existing facilities under Section 7(b) of the NGA. Project sponsors using Section 7(b) should consult the ACHP's *Exemption Regarding Historic Preservation Review Process for Projects Involving Historic Natural Gas Pipelines*⁴ and file the documentation specified.

2.1 Off-the-Record Communications

The FERC staff is bound by the ex parte regulations at 18 CFR 385.2201 governing off-the-record communications in all contested proceedings before the Commission. After an application is filed, staff can discuss procedural issues relating to NEPA analysis, but cannot discuss issues relating to the merits of the case.⁵ The ex parte rules do not apply during the pre-filing review process, prior to the filing of a formal application, nor do the ex parte rules apply to communications between the project sponsor and other consulting parties.

2.2 Standards and General Requirements

2.2.1 Professional Qualifications

The individuals conducting and preparing cultural resource investigation reports must meet the professional qualification standards of the NHPA,⁶ and standards of the applicable *State Historic Preservation Officer* (SHPO) and *land-managing agencies* (with the possible exception of studies performed or guided by federally recognized tribes [*Tribes*]).

2.2.2 Property Access

In some states, the project sponsor can access property for surveying purposes after receiving landowner permission or under authority of state law in some states. Project sponsors do not receive eminent domain authority under NGA Section 7 **until after a FERC Certificate of Public Convenience and Necessity (Certificate) is issued.** A

⁴ *Federal Register* April 5, 2002 volume 67, number 66

⁵ The NEPA exemption in 18 CFR 385.2201(e) allows staff to discuss procedural issues relating to environmental analysis of a case. For further guidance, contact FERC's Office of External Affairs at 202-502-8680.

⁶ Secretary of the Interior's Draft Historic Preservation Professional Qualification Standards, 20 June 1997, *Federal Register* Vol. 62, No. 119; 36 CFR 61, section 112(a) (1). https://www.nps.gov/history/local-law/arch_stnds_9.htm

project sponsor does not obtain eminent domain authority with a NGA Section 3 authorization.

Private and State Lands

Persons conducting cultural resources investigations on private lands should be sensitive to landowner concerns and existing land use, whether done before or after the issuance of a FERC certificate. Some states have laws and/or regulations that allow for environmental surveys prior to a project sponsor obtaining a negotiated easement agreement. Additionally, in some states, permits may need to be obtained from the SHPO or other state agencies prior to the conduct of investigations on private or state lands.

Federal or Tribal Lands

Persons conducting investigations on federal or tribal lands need to obtain permits prior to field work from the appropriate land-managing agencies for projects on federal lands, and from *Tribal Historic Preservation Officer's* (THPO) or appropriate Tribes for projects on *tribal lands*. Tribal lands are defined as all lands within the exterior boundaries of any Tribe's reservation and all dependent tribal communities as defined in Section 301(14) of the NHPA or Section 2(15) of the Native American Graves Protection and Repatriation Act (NAGPRA). A project sponsor cannot use eminent domain to cross federal or tribal lands, and must reach a right-of-way agreement from the appropriate agencies and Tribes for an easement.

Coordination with Other Environmental Studies

To the extent feasible, project sponsors should coordinate cultural resources field studies with other project-related environmental studies, and conduct them in a manner that does not affect other sensitive natural resources.

When conducting cultural resources investigations, project sponsors and/or their contractors should not violate other federal or state laws or regulations protecting natural resources including, but not limited to, the Endangered Species Act and Clean Water Act.

Project sponsors should conduct all archaeological excavations in accordance with the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan*. In particular:

- When *water screening* or de-watering archaeological excavations, install necessary erosion control devices to limit erosion and prevent the flow of sediments into nearby waterbodies or wetlands.
- When using heavy equipment for stripping or trenching, install sediment control devices, install matting, segregate topsoil, repair drainage tiles and irrigation systems, restore original contours, and revegetate disturbed areas.

2.2.3 General Reporting Requirements

All material filed with the Commission, either by hard copy or electronically, containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: "**CONTAINS PRIVILEGED INFORMATION--DO NOT RELEASE.**" This applies to, but is not limited to, overview, survey, and evaluation reports, addendums, and plans.

Project sponsors should consider having their survey designs reviewed by the appropriate SHPOs and other potential consulting parties, prior to conducting any field work.

Project sponsors should file the necessary cultural resources reports, together with the other environmental data, as early as possible so FERC staff can use the information in its environmental analysis of the project. Usually this is filed within Resource Report 4 of the application. Failure to file the necessary information may cause delays in completing review of a project or result in the rejection of an application. Project sponsors must file report(s), and reviewers' comments, with the Secretary of the Commission, and provide a hard copy to the OEP staff.

Cultural resource reports filed with the FERC should follow the American Antiquity style guide.⁷ In addition, reports should be consistent with guidelines of the applicable SHPOs, THPOs, land-managing agencies, the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation⁸ and the National Register Bulletin Series⁹ of the National Park Service (NPS). Where the reporting guidelines are not compatible, the project sponsor should coordinate with the involved consulting parties and the FERC staff for a resolution.

For reports involving federally managed underwater or offshore resources, project sponsors should follow the guidelines in *Notices to Lessees and Operators of Federal Oil and Gas Leases in the Outer Continental Shelf, Gulf of Mexico OCS Region*, NTL 2005-G07, July 2005,¹⁰ and the guidelines for the Abandoned Shipwreck Act.¹¹ For reports involving state-managed underwater or offshore resources, such as at river crossings, project sponsors should follow the guidelines of the appropriate SHPO or state agency.

Project sponsors or individuals filing documents with FERC should label all documents with the unique project name and the FERC docket number (if available at the time of filing). The title page of each report should indicate the level of the cultural resources investigation (overview, survey, evaluation, or treatment), county and state, the project sponsor, the contractor performing the work, and the date of publication, as well as the names of the main author(s).

⁷ "Editorial Policy, Information for Authors, and Style Guide for *American Antiquity*, *Latin Antiquity*, and *Advances in Archaeological Practice*," Revised October 14, 2014.

<http://www.saa.org/AbouttheSociety/Publications/StyleGuide/tabid/984/Default.aspx>

⁸ See 48 Federal Register 44716-42, September 29, 1983.

⁹ <https://www.nps.gov/Nr/publications/index.htm>

¹⁰ <http://www.boem.gov/Regulations/Notices-To-Lessees/2005/05-G07.aspx>

¹¹ 55 Federal Register 50116-50145, December 4, 1990.

Each report should include a management summary or abstract of the study's major findings, areas/project components, acreage surveyed, sites identified, NRHP eligibility recommendations, and any proposed avoidance or mitigation strategies.

The project sponsor submits all reports to the SHPO(s) and consulting parties, which may include land-managing agencies, permitting agencies, Tribes, local governments, or other parties approved by the FERC. The project sponsor will file the resulting comments with the FERC, revise reports to address review comments, and file final reports with the FERC.

2.2.4 Curation

Project sponsors and persons conducting cultural resources investigations shall treat all materials collected and records produced during cultural resource investigations in a manner consistent with Curation of Federally-owned and Administrated Archaeological Collections under 36 CFR 79, particularly the standards at 36 CFR 79.9 and 79.10. Archaeological materials collected on state, federal, or tribal lands must be preserved in a manner specified by the appropriate SHPO/THPO, land manager, or Tribe.

Project sponsors shall return material collected from private lands to the landowner after analysis is complete unless the landowner releases control to an approved repository, or Tribe, or if state laws dictate otherwise. Project sponsors should consider including a provision for donating *artifacts* in the easement agreement. The project sponsor will file documentation with the FERC that all materials collected were returned to their owner and/or curated in accordance with recommendations from the appropriate SHPO, Tribes, or land-managing agencies, and/or donated to an approved repository.

3.0 ACTIONS AT EXISTING FACILITIES OR UNDER BLANKET CERTIFICATES

3.1 Part 2.55 and Categorical Exclusions under Part 380.4

There are certain activities that are not reviewed for cultural resources by the OEP-DG2E staff. These include maintenance and operational activities under 18 CFR Part 2.55 on existing systems and categorical exclusions (listed in 18 CFR Part 380.4). These activities do not require the project sponsor to file any cultural resources information with the Commission. Part 2.55 activities do not require prior approval from the FERC and therefore are not undertakings under Section 106. The FERC has determined by regulation that categorical exclusions are also not undertakings.

3.2 Blanket Certificate Program

The blanket certificate program is specified under 18 CFR Part 157, subparts F and G. These regulations apply to projects for which the Commission has previously granted a Certificate, and further authorized future activities, including the construction of certain types of new facilities, under the blanket program. There are two main types of blanket activities: automatic authorizations and prior notices. Cultural resources procedures

under the blanket program are contained in appendix II of subpart F of Part 157 of the Commission's regulations.

Project-specific consultation may not be necessary for blanket activities if the project sponsor has a preexisting agreement with the SHPO, Tribe, or land-managing agency, which exempts specific activities to be conducted on existing rights-of-way or facilities because they would not affect *historic properties*. Documentation of any current executed agreements should be filed with the FERC. Note that this exemption information should also be filed for Section 3 and/or 7 projects.

For both an automatic authorization and a prior notice, it is the responsibility of the project sponsor to submit the required cultural resources data and consultation request to the SHPO. In order to proceed without a separate Commission approval, consultation must conclude with a SHPO concurrence of:

- no survey necessary;
- no historic properties present; or
- no historic properties affected.

If the SHPO makes any other finding, including recommending that the blanket activities would have **no adverse effect or adverse effect to historic properties**, the project sponsor cannot use the automatic authorization or the prior notice application under the blanket certificate, and must file an application under Sections 3 and/or 7 of the NGA for the project to be reviewed.

Automatic Authorizations

If the activities authorized by the blanket certificate fall below certain cost limits, the activities are automatic authorizations that do not require further Commission approval. Project sponsors document automatic activities by filing with the Commission an annual report which are reviewed by the FERC environmental staff. The annual report must include facility description, location, and the SHPO(s) concurrence of no effect on historic properties.

Prior Notice Applications

If the activities authorized by the blanket certificate are above the cost limits for automatic authorizations but below certain other cost limits, prior notice to the Commission is required. The activity may not proceed until the notice requirement has been met and either no protest has been filed, or if a protest has been filed it has been withdrawn or dismissed. For prior notice applications, the project sponsor documents consultations with the SHPO(s) to determine what degree of cultural resource investigations may be necessary. Any required report of a site file search, survey, testing results, and SHPO(s) comments must be filed with the prior notice application.

The project sponsor is not required to communicate with Tribes for activities eligible under the blanket certificate program, unless tribal lands are within a project area, in which case, the project sponsor must communicate with Tribes and document any tribal

comments. The THPO assumes the responsibility of the SHPO for Section 106 on tribal lands, but note that not all Tribes have a THPO. Where a Tribe does not have a THPO, the project sponsor must/should contact the appropriate tribal representative.

If the project sponsor disagrees with the SHPO or THPO/Tribe regarding the need for cultural resources surveys or the assessment of project effects, then the project sponsor cannot use the procedures under the blanket certificate program, and instead must file an application under Sections 3 and/or 7 of the NGA.

If the SHPO, Tribe, or federal land-managing agency declines to communicate with the project sponsor under any activities described in these guidelines, project sponsors should file the documentation of this response with the FERC. The FERC staff would consult directly with the consulting party, and determine how to proceed with complying with Section 106. If the project is on federal or tribal lands, however, the project sponsor must document communications with the federal land manager or Tribe, and follow the procedures of the land manager or Tribe for compliance with Section 106. The project sponsor must file the results of consultation and any investigations and a copy of the land-manager's or Tribe's comments.

4.0 COMMUNICATIONS UNDER SECTION 3 AND 7 OF NGA

4.1 Initiating Communications

As early as possible in the planning process, the project sponsor or its consultant should identify and communicate with the potential consulting parties. The project sponsor should provide the project scope, location, environmental setting, and any additional information necessary to make an initial assessment of the project's potential effect on cultural resources. The project sponsor should request comments regarding:

- the need for or level of cultural resources studies; and
- the identification of applicable Tribes, organizations, or individuals to be contacted regarding the project.

We recommend that no cultural resources field work begin until after the project sponsor has initiated communications with consulting parties, and provided the parties with the opportunity to review and comment on project-specific research designs and survey strategies. The project sponsor must file the consulting parties' comments with the FERC, as part of Resource Report 4 (see 18 CFR 380.12(f)(1)).

4.2 Communication with Tribes

The Commission does not delegate its government-to-government Tribal consultation responsibilities. If a Tribe does not wish to communicate or coordinate with the project sponsor, the Commission will consult directly with the Tribes. While a project sponsor is expected to reach out to Tribes early in its application planning stage, the FERC typically initiates consultation when the FERC staff has enough information to initiate its NEPA process and issues a *Notice of Intent to Issue an Environmental Document*. Additionally, project-specific letters to Tribes may be issued on a project-by-project basis.

Section 106 Outreach

To meet our regulations (such as 18 CFR 380.12(f) (1) (i); (f) (v) and others) and in compliance with the ACHP's regulations at 36 CFR 800.2(c) (2), we require project sponsors to request comments from Tribes in order to consider their concerns early in the planning process. Project sponsors begin project planning well in advance of any FERC involvement in projects. Tribes have a special expertise in evaluating historic properties that may have religious and/or cultural importance to their nation.

The project sponsor or its consultant should conduct independent research to identify the Tribes with a potential interest in the project area. This research should include all Tribes that currently or historically have occupied or used the area, regardless of where the Tribes currently reside. Communication with Tribes should be conducted in a manner sensitive to the needs and concerns of the Tribes. Collecting information does not constitute government-to-government consultation but is allowed under the Section 106 regulations to assist federal agencies.

When writing to Tribes to request their comments, the project sponsor should be respectful and include the following information:

- 1) a statement that this would be a FERC-regulated project;
- 2) “The project sponsor is authorized by FERC to contact the Tribe.” However, **do not state that the project sponsor “represents” or is “delegated by” or is writing “on behalf of” the FERC;**
- 3) a statement that the FERC has not delegated government-to-government consultations with Tribes;
- 4) a statement that after the initiation of FERC's involvement, the FERC staff will contact Tribes through issuance of a *Notice of Intent to Prepare an Environmental Document* and may issue individual letters to Tribes;
- 5) a statement that the regulations for implementing Section 106 (at 36 CFR 800) allow project sponsors or contractors to gather information, but the FERC would be responsible for all determinations required pursuant to Section 106;
- 6) a description of the proposed project, including the project name, a summary of the facilities, the affected counties and states, and a general location map;
- 7) a description of the project status/schedule (i.e., the project sponsor may be filing its application with the FERC in about xx months);
- 8) a request that the Tribe provide comments about the project to the project sponsor, appropriate survey boundary, identification/survey methodology, information regarding *traditional cultural properties* in the area, and areas of importance to the Tribe (which may include resources that are may not meet the definition of historic properties);
- 9) a request for comments on the research design/survey strategy and the potential for the project to affect historic properties, including religious or cultural properties of importance to the Tribes; and

10) a paragraph near the end of the letter that states-

“If you would like to communicate directly with the FERC natural gas archaeological staff to discuss its cultural resource review and consultation processes, please feel free to contact Eric Howard, Tribal Coordinator, at 202-502-6263 (email: eric.howard@ferc.gov).”

If no response is received from a Tribe within 30 days after the request for comments is sent, the project sponsor or its consultant should follow-up with a telephone call, email, or other means, to verify that the appropriate Tribal representative has received the information, and either doesn't require any further information or has no comments. The project sponsor should document whatever efforts are used, with copies of phone logs, emails, meeting notes, correspondence, and if applicable, registered letter receipts.

As stated previously, if a project sponsor learns that a Tribe wishes to consult directly with the FERC, the project sponsor should notify the FERC Tribal Coordinator or Project Manager and FERC staff will contact the Tribe.

5.0 PLAN FOR UNANTICIPATED CULTURAL RESOURCES AND HUMAN REMAINS

The project sponsor is required to file a plan for the treatment of unanticipated cultural resources and human remains. The project sponsor should prepare the plan in consultation with the SHPO, THPO/Tribes, and applicable land-managing agencies and include in the plan a description of both the protocol and appropriate treatment measures. The plan should be developed early in project planning and filed as part of the application. It is acceptable to include the plan in the overview or survey report. The plan would also be required in project construction implementation plans to be furnished to environmental inspectors and other appropriate construction personnel.

5.1 Cultural Resources That May Qualify as Historic Properties

The plan must specify the parties to be notified and provide procedures for:

- 1) stopping work in the vicinity and protecting the discovery;
- 2) notifying consulting parties with an interest in the location within 24 hours of discovery; and
- 3) evaluating and treating the discovery in consultation with consulting parties.

5.2 Discovery of Human Remains

The plan must specify the parties to be notified and provide procedures for:

- 1) stopping work in the vicinity and protecting the discovery;
- 2) providing remains and associated features with dignity and respect;

- 3) following state and local laws, policies, and procedures governing the discovery and treatment of human remains on state and private lands (the project sponsor should cite appropriate provisions);
- 4) notifying consulting parties, landowner, and any interested Tribes within 24 hours of discovery;
- 5) making a good faith effort, on federal or tribal lands, to identify and consult with next-of-kin, the affiliated Tribe, lineal descendants or culturally affiliated persons, as defined in the NAGPRA in 25 USC 3001, if appropriate;
- 6) assisting the federal land-managing agencies or Tribes with compliance with NAGPRA, following any applicable agency/tribal guidance regarding the discovery and treatment of Native American human remains and related *cultural items* on federal or tribal lands;
- 7) following any applicable guidance from federal land-managing agencies for the discovery and treatment of non-Native American human remains on federal lands; and
- 8) treating the remains, in consultation with consulting parties, lineal descendants or culturally affiliated persons.

6.0 REPORTING

Project sponsors must file identification and evaluation reports documenting the results of cultural resources investigations. If a project sponsor finds that a report is not warranted after proper consultation with the SHPO, THPO, and/or land managing agencies, it must provide its justification and documentation of relevant correspondence.

6.1 Overview Report

Project sponsors should file an **overview report** or literature/records research when required by consulting parties. The overview report, if necessary, must be filed with the FERC application. The document addresses the location, character, and the NRHP-eligibility of known cultural resources in the project area based on existing sources, and site information; and the potential for the project to affect historic properties.

The Overview Report includes:

- 1) a description of the project, with the locations of all facilities illustrated, by milepost (MP) or station number (SN), on 7.5-minute-series U.S. Geological Survey (USGS) topographic quadrangle maps (for looping projects, include the relationship of the proposed project to the existing right-of-way and pipeline[s]);
- 2) a definition of the survey area [note the survey area would encompass the *area of potential effects* (APE) and that the same project may have one APE for archaeological sites and a different APE for aboveground resources subject to visual, audible, vibratory, or atmospheric effects] and a survey corridor which should be large enough to accommodate for minor route;

- 3) the results of the review of the NRHP, appropriate site files, and relevant literature;
- 4) a discussion of previous cultural resource investigations in the project area and survey adequacy;
- 5) a description of all known cultural resources in the survey area and its immediate vicinity, with their locations illustrated by MP on 7.5-minute-series USGS topographic quadrangle maps;
- 6) an analysis of the potential for unrecorded cultural resources in the APE, based on environmental data, past and current land-use, and other factors;
- 7) a historic context(s) organized by cultural themes, place, and time, and specifically addressing the cultural resources known to exist, or likely to exist, within the APE (a generic summary is not sufficient; see 48 Federal Register 44716);
- 8) an *ethnographic* analysis to identify any living Native American groups or other groups with ties to the project area to identify properties of traditional, religious, or cultural importance to Tribes and other groups;
- 9) status or results of communication with any Tribes or group which historically occupied or used the project area;
- 10) identification of any historic viewsheds or rural historic districts or landscapes that might be subject to alteration, or visual, audible, vibratory, or atmospheric effects;
- 11) status or results of consultations with any local museums, historic and archaeological societies, and other individuals and organizations with expertise relating to archaeological, historical and architectural resources in the project areas; and
- 12) the recommendations of the SHPO, THPO/Tribes, and applicable land-managing agencies, and any cultural resources comments from the public.

The project sponsor submits the overview report to SHPO(s), applicable agencies, any involved Tribes, and any additional FERC-approved consulting parties for review prior to filing with FERC. The project sponsor should file all correspondence with the consulting parties and the public with the FERC.

If the consulting parties agree that the overview report provides sufficient information to demonstrate that the project would not affect any historic properties, no further cultural resources work is required. However, if any consulting party states that additional investigations are required to evaluate the project's potential effect on historic properties, then cultural resources field inventories may be necessary to identify historic properties in the APE, and the project sponsor should file with the FERC the results of the additional investigations in the form of a **survey report**.

6.2 Survey Report

The **Survey Report**¹², if required, must be filed with the FERC application. The report addresses the results of the survey, confirms the presence of known cultural resources, and identifies previously unrecorded cultural resources. In addition, it provides the level of effort necessary to identify all cultural resources in the APE based on consultation with consulting parties, and the recommendations regarding the resource's NRHP eligibility. (

The Survey Report includes:

- 1) title page – title, type of survey, county and state, author(s), project sponsor, agencies involved, and date of submission or completion.
- 2) management summary/abstract – project description, location, size of project (acres), field methods, results, potential resource impacts (avoidance, minimization, or mitigation), and NRHP eligibility recommendation.
- 3) table of contents.
- 4) introduction – survey purpose, general project description, location, project conditions/constraints, acreage of project and surveyed area, an illustration of the surveyed area accurately delineated on a 7.5-minute-series USGS topographic quadrangle maps, and a county soil survey map, if available for that area.
- 5) background research –this section should relate directly to the project area and include information that would be contained in an Overview Report (Section 6.1). Additionally the section should include:
 - a. discussion of the past and present environmental setting (topography, soils, hydrology, and geology);
 - b. summary of paleoenvironment, present climate, and current vegetation, including past and present land uses and current conditions;
 - c. overview of the prehistoric and historic culture history of the area, specific to the project;
 - d. research that identifies associations with significant people and events for historic/architectural/engineering sites; and
 - e. documentary research for the project area, including historic maps, deeds, or other pertinent information, and individual property title, if available.
- 6) research design – this section will describe the level and intensity of the investigation, and should contain:
 - a. research objectives and theoretical context; specific research problems, questions, and/or hypotheses to be tested; proposed methodology to address the research objectives and questions; a discussion of the expected results;

¹² We recommend that the overview and survey reports be combined into a single report (provide all of the data outlined in the overview report section), depending on the size of the project and guidance of consulting parties. However, a summary of the overview report can be filed separately, if the reports are not combined.

- b. discussion of the surveyed area including corridor width, length and configuration and including but not limited to *sampling design, pedestrian transect* intervals, resource definitions (for example, sites vs. *isolated finds*), windshield survey, subsurface archaeological testing (such as *auger* or *shovel tests*, formal excavation units, *deep trenching* in alluvial settings), and use of nondestructive *remote sensing*, such as aerial photography and *geophysical survey techniques*;
 - c. an identification of survey techniques, if several different survey techniques were used, indicate by MP, MP segment, or SN where each was employed;
 - d. an indication of the acres and dimensions of areas previously surveyed, current surveyed areas, and where investigations are pending; and
 - e. survey methodology proposed:
 - i. field and laboratory methods and procedures conducted and any deviation from the original proposal (why and how it was revised);
 - ii. the identification of any reroutes, relocated facilities including ancillary facilities, or relocated construction areas (including extra-work spaces, staging areas, storage yards, and new or to-be improved access roads, other areas, etc.), and the results of cultural resource surveys related to those areas; and
 - iii. identification methods for describing and justifying the field methods and techniques used to define each resource's extent and integrity.
- 7) field results - this section will provide the actual identification efforts conducted and findings:
- a. all maps, including reproductions of historic maps, should have a north arrow, accurate bar scale, delineation of the surveyed area, legend, map title, and year of publication;
 - b. cross section and profile drawings - include scale, elevation, orientation, soil descriptions, and soil colors (*Munsell*);
 - c. a detailed plan view drawings should be keyed to the site map;
 - d. a clear description and depiction of all areas investigated, including those where resources were not recovered or observed. Include the total number of test units excavated;
 - e. summary of soils and *stratigraphy*, including location and types of disturbance. A description of the stratigraphy of representative shovel tests, test units, or trench;
 - f. description of each above ground structure identified and time period constructed;
 - g. maps, figures, and photographs of test areas, features, and soil profiles, as appropriate;
 - h. illustrate all identified sites and structures on 7.5-minute-series USGS topographic quadrangle maps of the surveyed area. Maps should also depict survey areas that are pending due to restricted access;
 - i. location of the resource in relation to the APE. If possible, define the entire boundary and depth of each cultural resource. If it is not possible, explain why (landowner denied access, etc.).

- j. if requested by the SHPO, Tribe, or land-managing agencies, and available, provide resource location information in a Geographic Information Systems (GIS) format with survey area, cultural resources identified, and proposed project boundary;
 - k. the results of the cultural resources survey superimposed onto the project sponsor's construction alignment sheets (scale 1:500 or larger) to verify that the survey has covered all project areas. The project sponsor will use this in combination with other environmental and engineering considerations in designing the project; and
 - l. an analysis of survey data, which:
 - i. describes the cultural resource types present;
 - ii. provides interpretations of resource functions;
 - iii. identifies the cultural affiliation of the resources and their age (through absolute or relative dating), if possible;
 - iv. discusses patterns and relationships within and among resources; and
 - v. interprets resources within the relevant historic contexts.
- 8) archaeological site analysis should include description of the site, state-assigned Smithsonian trinomial site number, and location of the site in relation to the project. Each site analysis should:
- a. describe the ecological setting and current land use;
 - b. identify and describe, to the extent possible using data collected during the survey, the natural and cultural site stratigraphy, to the depth of culturally sterile subsoils (examples of disturbance may include cultivation, fill, animal burrowing [*bioturbation*], erosion, and construction);
 - c. describe soils color (Munsell), texture and composition, and characteristic horizons;
 - d. identify the pipeline loop/segment or facility by MP;
 - e. depict, by MP or SN, on a 7.5-minute-series USGS topographic quadrangle maps, its relationship to the proposed project facilities;
 - f. provide a large-scale individual resource map (such as 1 inch = 200 feet) showing topography, areas investigated or tested, *artifact* concentrations, *cultural features*, structures, resource boundaries, the pipeline centerline, construction right-of-way, and other project features;
 - g. provide plan views, profiles, and photographs of all cultural features or structures;
 - h. record cultural resources on forms specified by the SHPO, THPO/Tribes, and the applicable land-managing agencies, and append the site forms to the survey report. Site forms must include Universal Transverse Mercator coordinates, environmental data, resource description, maps and photographs, and (where visual effects are of concern) panoramic perspective photographs; and
 - i. provide research conclusions and recommendations for any further work necessary to evaluate cultural resources.

- 9) artifact analysis can be summarized in the text of the report, with the complete inventory of artifacts, by provenience and class, located in an appendix. The artifact analysis should contain:
 - a. artifact descriptions and results of analysis;
 - b. photographs or drawings of selected or representative artifacts, including scale; illustrate important and *diagnostic artifacts*;
 - c. repository information for artifact collection and project files; and
 - d. cataloging and analysis of all collected materials, including stratum information for artifacts (present information in the form of tables, graphs, figures, or charts, where possible).
- 10) interpretation discussion of field results and recommendations should include:
 - a. results in terms of the background cultural context, research design, goals, and research problems with reference to contexts/information;
 - b. constraints and reliability of methods; and
 - c. depending on the level of investigation, provide appropriate recommendations for each site, including no further work, additional investigations, data recovery, or avoidance. Other specific recommendations may also be appropriate, such as special analyses (provide any new research directions based on the results and conclusions).
- 11) evaluation of NRHP eligibility, project effects, and site recommendations:
 - a. identification reports should address potential NRHP eligibility¹³; recommendations must be fully documented; and
 - b. describe both direct and *indirect effects* of the project on each site identified.
- 12) all sources/references cited may be listed together in an American Antiquity format, including maps, archival documents, personal communications, and other relevant project coordination/correspondence.
- 13) appendices should include a short resume of key cultural resource personnel (e.g., principal investigator, field director, laboratory director), scope of work and/or technical proposal, representative soil logs, artifact inventory, any specialized artifact analysis, and site forms (new and updated).

The project sponsor should submit the survey report to consulting parties for review and comment. It is the responsibility of the project sponsor to file any comments from consulting parties with the FERC. Consulting parties should be given 30 days after receipt of the survey report to provide comments. FERC staff expects the comments to be filed in the application or as soon as the comments are received.

If consulting parties agree that the results in the survey report are sufficient to demonstrate that the project would not affect any historic properties, no additional fieldwork is required. In this case, the survey report would represent the final report for the project, unless there are project modifications that require further review. In

¹³ Discussions must address potential NRHP eligibility using the criteria outline by the NPS, in National Register Bulletin 15, available online at: <https://www.nps.gov/nr/publications/bulletins/nrb15/>

situations where consulting parties recommend additional investigations to evaluate the NRHP eligibility of resources, the project sponsor may be required to file with the FERC an Evaluation Report as described below.

6.3 Evaluation Report

A project sponsor can combine all elements of overview, survey, and evaluation reports into a single, synthesized project report, if consulting parties agree. The report also includes all of the data listed in overview and survey report sections. The **valuation Report** provides the results of additional limited archaeological excavations and analyses, or other investigations such as documentation of structures or traditional cultural properties, to assess the NRHP eligibility of individual resources. Furthermore, the assessment may refine the resource boundary within the APE and provides recommendations of project effects on historic properties. Documentation in evaluation reports must be sufficient to allow the reader to make an independent assessment of NRHP eligibility of identified resources. Using the NRHP criteria for evaluation and the factors considered in making the assessment need to be fully described. In situations where access is denied, an Evaluation Report may be filed after the FERC has issued a Certificate, and the project sponsor can use the power of eminent domain to gain access [see 18 CFR 380.12(f)(2)(ii)].

The Evaluation Report includes:

- 1) a brief project description;
- 2) a summary of all previous cultural resource investigations and known sites for the project;
- 3) the recommendations of consulting parties, including their review and comments of previous cultural resource investigations, and an explanation of how the project sponsor addressed those comments;
- 4) descriptions and locations, include MP or SN, (with appropriate maps) of the resources studied, and the reasons for the investigations conducted;
- 5) the research design and a description of methods and analytical techniques;
- 6) the results of fieldwork and analyses, including evaluations of the integrity of each cultural resource to meet one of the NRHP criteria for eligibility, the data obtained, and the ability to use the information to address important research questions;
- 7) for archaeological sites, provide the type, number, and location of all excavation units at each site and the results of any special analyses (such as for *geomorphology, lithics, ceramics, pollen, macrobotany, faunal collections, radiocarbon dating, etc.*);
- 8) for historic and architectural resources, determine (if possible) the builder, age, occupant/users, function of each structure through site-specific historical research (e.g., courthouse records search, informant interviews); interpret each structure within the proper historic context, in light of associations with

- patterns, events, or people of local, regional, or national significance; and analyze the architectural and engineering significance to each structure;
- 9) an analysis of the data (catalog collected artifacts, and present data, in tables and figures; describe and illustrate all formal excavation units [profiles of 1 x 1 m or larger blocks], cultural features, and diagnostic artifacts; provide photographs of all cultural features and structures);
 - 10) an evaluation of the significance of each cultural resource studied or tested, in terms of any defined historic contexts, state plans, guidance from the SHPO, THPO/Tribes, and applicable land managing agencies, standards presented by the NPS in its *National Register Bulletin* series, and the NRHP criteria(ion) under which the resource is eligible;
 - 11) an assessment of both the direct and indirect effects of the project on historic properties;
 - 12) recommendations for further work, including avoidance or treatment (if the project sponsor intends to avoid historic properties through reroutes or relocation of project facilities or construction areas, provide the results of cultural resource surveys of those reroutes or new project areas);
 - 13) a list of key cultural resources personnel (with a short resume, if not previously provided in the same project);
 - 14) updated site forms, if necessary, and other supporting documentation (if required by consulting parties; and
 - 15) a copy of the original scope of work for the investigations at this level of study.

The project sponsor should submit the evaluation report to consulting parties for review and comment for a minimum of 30 days. It is the responsibility of the project sponsor to file any comments from consulting parties with the FERC.

If the project will avoid all historic properties, or consulting parties agree that none of the evaluated resources are NRHP-eligible, then no further fieldwork is necessary and the evaluation report is the final report for the project. However, if monitoring is recommended for an historic property, which has been avoided, additional documentation may be required.

7.0 AGREEMENT DOCUMENTS AND TREATMENT PLANS

7.1 Agreement Documents

If a project would adversely affect an historic property, the FERC is responsible for notifying the ACHP, and inviting them to participate in the resolution of adverse effects. Adverse effects are usually resolved through the execution of an agreement document, drafted by the FERC staff. An agreement document may be a memorandum of agreement (MOA) or programmatic agreement (PA). The key stipulation in either an MOA or PA is usually that adverse effects to historic properties would be minimized or mitigated through the implementation of a treatment program. If the ACHP participates

in the resolution of adverse effects, they will be one of the signatories to the agreement document. If the ACHP does not participate, other signatories could include the FERC and SHPO, or invited signatories such as federal or state land-managing agencies (if the project crosses any federal or state lands), Tribes (if the project would cross tribal lands), project sponsors, and other FERC-approved consulting parties. An agreement document would only be executed after the Commission has authorized the project. Once executed, the agreement document would be sent by the FERC with the ACHP.

7.2 Treatment Plan

The FERC prefers that projects avoid historic properties whenever possible. However, a project sponsor is required to prepare a treatment plan if the project would affect any historic property that the consulting parties agree requires treatment. A treatment plan provides a proposal for the mitigation of adverse effects upon any historic property caused by the project. It can include, but is not limited to, data recovery, documentation, restoration, public outreach, or other measures. The project sponsor develops and submits the draft treatment plan to FERC and consulting parties for review. The project sponsor should discuss with FERC staff the proper sequence of coordination with consulting parties. The project sponsor is responsible for filing comments of consulting parties with FERC.

After the Certificate/Order is issued, and if the treatment plan is acceptable, the Director of OEP will notify the project sponsor, in writing, that implementation of the treatment plan has been approved. If the historic property is on federal or tribal land, the THPO/Tribe or land manager may need to issue a separate permit.

A Treatment Plan includes:

- 1) a summary of previous cultural resource investigations and a description of all historic properties in the APE (it should provide a clear statement[s] about the elements of each property that qualify it for the NRHP, and the project's effects upon each of those elements).
- 2) the recommendations of consulting parties. The project sponsor should include consulting parties comments on the NRHP eligibility of the historic properties and how those properties would be affected by the project.
- 3) a discussion of how the proposed treatment addresses the concerns of consulting parties.
- 4) the location of each historic property on a 7.5-minute-series USGS topographic maps, and large scale site-specific maps (such as, 1 inch = 50 feet) for all historic properties, which define each property's relationship to the APE (e.g., pipeline centerline, construction right-of-way, workspace, or project facility boundaries).
- 5) a discussion of how the proposed treatment measures reduce or eliminate effects on each element which contributes to the significance of each property.

- 6) a detailed explanation of why it is not possible or practical to avoid the historic property concerned, indicate if reroutes were examined, and why the reroutes were rejected.
- 7) a plan for the incorporation of specific treatment efforts into project construction plans and contractor specifications, including inspector and construction workforce training, details on alignment sheets, and monitoring as needed.
- 8) site-specific treatment measures may include, but not limited to:
 - a) reducing the width of the right-of-way;
 - b) preserving the historic property in place;
 - c) barricading, flagging, or fencing;
 - d) boring or drilling under the historic property;
 - e) using matting or padding to protect the historic property;
 - f) monitoring or trench inspection;
 - g) restoring the right-of-way to mitigate effects on historic viewsheds or landscapes;
 - h) using long-term stabilization measures to prevent erosion of intact portions of historic properties within the APE;
 - i) repairing, rehabilitating, restoring, or relocating standing structures;
 - j) documenting structures and objects according to the standards of the Historic American Building Survey (HABS) or the Historic American Engineering Record (HAER)¹⁴;
 - k) plans to reduce audible effects (for example, through construction of noise barriers); and
 - l) archaeological data recovery.
- 9) a schedule for completion of: fieldwork; management summary; laboratory analysis; conservation and permanent curation; research and ancillary studies; draft and final reports; and any other mitigating measures outlined in an agreement document.
- 10) identification of key personnel (with short resume if not previously provided in the same project) who will be involved in carrying out the treatment plan including the principal investigator, project/field directors; field and laboratory supervisors; specialists (historians, osteologist, geomorphologist, etc.).
- 11) method of data recovery treatment (if proposed), includes:
 - a) a site-specific research design that explains how the proposed fieldwork and analyses would address the relevant research questions or hypotheses for each historic property to be treated;
 - b) a scope-of-work for the data recovery which includes:

¹⁴ See 48 Federal Register 44716, available online at: https://www.nps.gov/history/local-law/arch_stnds_0.htm

- i. site-specific justifications for the level of effort and proposed fieldwork at each historic property being treated;
 - ii. a quantitative description of the extent of the data recovery in terms of both the total site dimensions, and the portion of the historic property within the APE;
 - iii. the site-specific location of excavation units, collection transects, or other studies (illustrated on a large-scale site map);
 - iv. field methods and techniques discussions, including tools and equipment, and estimates of the time and workforce required to complete the fieldwork; and
 - v. a plan for the analysis of data, laboratory methods and techniques, and report preparation.
- 12) an information dissemination plan to make the results of cultural resource investigations available to the public (see Data Dissemination, Public Participation, and Education section).
- 13) a *management summary* is a preliminary field report for complex investigations, such as archaeological data recovery associated with a treatment plan. However, for historic properties subject to minor investigations, such as monitoring during boring/drilling, the management summary may be the last report for the project. The project sponsor submits the management summary to consulting parties within 30 days of completing fieldwork or as defined in the treatment plan. The management summary includes:
 - a) a summary of the treatment measures conducted at each historic property;
 - b) the location (by facility and MP) of each historic property;
 - c) dates of fieldwork and the names of the key personnel involved with the cultural resources investigations;
 - d) a description of the amount of excavation, if archaeological data recovery was done, indicating the number and location of the excavation units (illustrated on a large-scale site map, such as 1 inch = 50 feet);
 - e) the results of the treatment, including a summary description of the materials collected or other documentation prepared, and the effectiveness of the treatment;
 - f) the analyses conducted to date, and/or pending; and
 - g) conclusions and a schedule for the draft treatment report, if necessary.
- 14) a *treatment report* summarizes prior studies and describes the site-specific results of implementing the treatment plan. It is a technical report necessary to document activities such as archaeological data recovery, HABS/HAER recordation, or the restoration of structures, features, or historic viewsheds, and the effectiveness of the treatment. The project sponsor submits a treatment report to consulting parties within one year of completion of fieldwork, unless

another date was specified in the treatment plan or associated agreement document.

8.0 BORING/DIRECTIONAL DRILLING

In developing construction designs, a project sponsor will consider methods that would not impact historic properties. These techniques would be developed after research (archival or field survey) of historic properties with the study corridor. Some of the methods may involve the use of *boring* or *directional drilling* may be a means to *avoid* or *mitigate* effects on historic properties, depending on the circumstances. Using boring/drilling to avoid impacts means the project would have no effects on historic properties. If boring/drilling is used for mitigation, the project would have effects on historic properties but the effects would not be adverse. If boring/drilling is used for either avoidance or mitigation, the project sponsor may be required to allow access to the historic property for future research or data recovery (depending on the type of historic property), unless the landowner objects.

The FERC staff considers boring/drilling avoidance when:

- 1) the pipeline is at least 25 feet away from any portion of the historic property; and
- 2) the project sponsor can ensure that no construction, operation, or maintenance activities will occur within the boundaries of the historic property.

If these criteria cannot be met, the FERC staff considers boring/drilling to be mitigation and the project would have effects on historic properties, requiring a treatment plan (see Agreements Documents and Treatment Plan section).

When boring/drilling is used for avoidance, the project sponsor provides the following information, as appropriate:

- 1) a description of the historic property being bored/drilled under, including its maximum depth, and a representative stratigraphic profile;
- 2) a brief description (using non-technical language) of the proposed boring/drilling operation including, but not limited to, the location of bore pits, lay down areas, spoil piles, the depth (in relation to the surface and the deepest part of the historic property) and diameter of the borehole, and the time required to perform the boring/drilling;
- 3) scaled plan and profile drawings which show relationship of the boring/drilling location and associated work areas to the boundaries of the historic property (highlight important features such as the final location of the pipeline and landscape features);
- 4) an explanation or illustration of how any equipment will access the right-of-way on either side of the historic property to avoid it (none of the equipment may cross the historic property); and

- 5) a summary of the results of pre-construction geotechnical studies such as core sampling with a description of the substrate, and an assessment of the likelihood of successfully boring/drilling through this substrate (including an explanation of how obstacles like rocks, features like sinkholes, and buried peat bogs, etc. could affect the boring/drilling).

When boring/drilling is used for mitigation, the project sponsor provides the following information, as part of a treatment plan:

- 1) a contingency plan to be used if the boring/drilling is unsuccessful (include work stoppage, consulting protocol with agencies and consulting parties, and specify procedures if the historic property is affected);
- 2) a discussion of how aboveground features, such as earthworks, railroad grades, roads/trails, canals, or structural remains will be documented, mapped, and photographed prior to boring/drilling (consult with the agencies and consulting parties for documentation standards);
- 3) a description of how access to the right-of-way and maintenance activities will not adversely affect the historic property over time, and measures necessary to preserve the historic property after construction (such as but not limited to monitoring, planting hedgerows across the right-of-way to prevent vehicular access, and measures to prevent archaeological looting);
- 4) a schedule for the boring/drilling; and
- 5) a contingency plan for treatment, with a schedule for its implementation, if the historic property is affected by a failed bore/drill, subsequent maintenance, or other activities.

9.0 DATA DISSEMINATION, PUBLIC PARTICIPATION, AND EDUCATION

After consultation with consulting parties, it may be decided that the project sponsor would disseminate the results of cultural resources studies to the FERC, SHPO, involved Tribes or THPO, land-managing agencies, and other consulting parties approved by the FERC. The documents supplied by the project sponsor would exclude from the main body of the final report all precise site locational information, and other proprietary or sensitive data (place these data in separate appendices whose distribution is limited to agencies and consulting parties). The project sponsor would communicate with the SHPO, THPO, involved Tribes, land managing agencies, and any other consulting parties to prepare report for publication. The project sponsor would distribute copies, to appropriate repositories such as, regional universities, colleges, and libraries, of the final versions of project reports (overview, survey, evaluation, or treatment); within one year from acceptance of the report by agencies and consulting parties (unless the parties agree to another schedule).

As a result of the fieldwork reported in the overview, survey, evaluation, and treatment reports, the project sponsor may either be required to or choose to prepare additional

documents for public participation and education. These documents should be discussed and approved by the consulting parties, and could include:

- 1) publishing articles in popular or technical journals documenting the cultural resource investigations;
- 2) making the results of cultural resource investigations available to the general public, including but not limited to the distribution of report summaries, internet publication, brochures, or other means (excluding specific site locations, proprietary, or other sensitive information); and/or
- 3) implementing public education programs, such as inviting the public to view archaeological fieldwork, giving slide or video presentations, or creating interpretive exhibits.

10.0 APPENDICIES

10.1 Definitions

Unless otherwise defined, all terms in this document are used in accordance with 36 CFR § 800.16.

Advisory Council on Historic Preservation (ACHP) is an independent agency of the United States Government whose members are charged with advising the President and the Congress on matters relating to historic preservation, recommending measures to coordinate activities of federal, State, and local agencies and private institutions and individuals relating to historic preservation; and advising on the dissemination of information pertaining to such activities. The Council reviews the policies and programs of federal agencies concerning compliance with the NHPA. It is also responsible for commenting to the Agency on an undertaking that affects historic properties.

Area of potential effects (APE) means the geographic area within which the project may cause direct and/or indirect effects (including physical, visual, vibratory, or audible effects) to the character or use of historic properties. This includes all areas of construction, such as rights-of-way, compressor stations, meter stations, staging areas, extra-work spaces, storage yards, communication sites, access roads, and other ancillary facilities.

Artifacts are objects, which have been made, modified, or used by humans.

Auger testing is the use of drill-rig-mounted or hand-held coring tool to provide a columnar sample of subsurface soils, which may be examined for the presence of cultural remains.

Bioturbation is the disturbance of deposits by activity of rodents, worms, and insects.

Consulting parties are the SHPO, THPO/Tribes, and potentially local government representatives, and project sponsors. FERC staff may also invite certain individuals or organizations with a demonstrated interest in the undertaking and effects to historic properties to be consulting parties.

Cultural features are cultural remains such as hearths, walls, foundations, post molds, pits, etc.

Cultural items means human remains and associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony as defined in § 2(3) of NAGPRA.

Cultural resources are any prehistoric or historic site, district, object, cultural feature, building or structure, cultural landscape, or traditional cultural property (including artifacts, records, and related material remains). The project sponsor identifies all

cultural resources in the APE, and agencies and consulting parties consult to determine if any qualify as historic properties.

Deep trenching is the use of heavy equipment (e.g., a backhoe) to excavate a sample of buried deposits, which would not be accessible by manual excavation (often used to sample floodplain soils at river crossings).

Diagnostic artifacts are artifacts indicative of a particular period or cultural tradition.

Ethnography is the systematic study and recording of human cultures.

Faunal remains are animal remains, usually bones.

Geomorphology is the study of landforms and the processes which produced them.

Geophysical survey technique is a type of remote sensing using devices such as proton magnetometers, ground penetrating radar, or side-scan sonar, to detect cultural remains.

Historic property means any cultural resource that is listed in or eligible to be listed in NRHP), as well as properties listed as National Historic Landmarks (NHLs). All reports should specify whether an historic property is an NHL. The term includes properties of traditional religious and cultural importance to a Tribe that meet NRHP criteria.

Indirect effects are those effects on historic properties, which are removed in time and/or space from their proximate causes (e.g., increased access to an archaeological site resulting in an increased potential for vandalism of that site).

Isolated finds may be single artifacts or a group of a few artifacts, or a single feature, which is (are) not associated with any other cultural features or landscapes, or large concentrations of artifacts, and may be out of context. Various SHPOs and land-managing agencies set different thresholds to distinguish isolates from small sites.

Land-managing agency means any federal agency or Tribe, which owns or manages lands affected by a project.

Lithics are stone tools or debris (debitage) created in the process of tool manufacturing.

Macrobotany is the study of plant specimens such as nutshell fragments, seeds, twigs, etc. as distinct from pollen and phytoliths.

Munsell are color types expressed in terms of its "value," "hue" and "chroma" determined by comparison with a standardized chart most often used in describing soils.

National Register of Historic Places (NRHP) is a listing of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.

Pedestrian transects are systematic surface inspections of the APE by walking parallel linear paths spaced at regular intervals.

Project sponsor is a natural gas project sponsor proposing an activity under the jurisdiction of the FERC.

Radiocarbon dating is an absolute dating technique based on C-12 to C-14 isotope ratios in organic, i.e. once living, samples such as wood, charcoal, and textiles.

Remote sensing is a technique for discovering cultural remains without actual excavation using geophysical techniques, aerial photography, or satellite imagery.

Sampling design is a plan for recovering a statistically representative portion of the cultural resources within a survey area.

Shovel testing is the use of a shovel to probe into subsurface soils to determine the presence or absence of buried cultural resources.

State Historic Preservation Officer (SHPO) the SHPO reflects the interests of the State and its citizens in the preservation of their cultural heritage. In accordance with section 101(b)(3) of the act, the SHPO advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taking into consideration at all levels of planning and development.

Stratigraphy is the sequence of layered deposits (strata) produced by either natural geological processes or sequential cultural activity.

Tribal Historic Preservation Officer (THPO) has assumed the responsibilities of the SHPO for the purposes of Section 106 compliance on tribal lands in accordance with section 101(d)(2) of the NHPA. Not all Tribes have a THPO.

Traditional Cultural Property is a property that is eligible for the NRHP because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and that are important in maintaining the continuing cultural identity of the community.

Tribe means any Native American group recognized by the federal government, as defined in Section 301(4) of the NHPA.

Tribal lands means all lands within the exterior boundaries of any Tribe's reservation and all dependent tribal communities as defined in § 301(14) of the NHPA or section 2(15) of the Native American Graves Protection and Repatriation Act (NAGPRA).

Undertaking is a project, activity, or program funded by a federal agency, non-financial assistance provided by a federal agency, or requires any form of federal approval, including those:

- 1) carried out by or on behalf of the agency;
- 2) carried out with federal financial assistance;
- 3) requiring a federal permit, license, or approval; and
- 4) subject to state or local regulation administered pursuant to a delegation or approval by a federal agency.

Water screening is the process of separating artifacts from soil using water sprayed through hardware cloth.

10.2 Other Relevant Legislation and Regulations

The *American Indian Religious Freedom Act of 1978* (AIRFA) pertains to the protection of American Indian religious freedom. This act: encourages federal protection of sites considered sacred to Native Americans; requires the President to order agencies to review their policies and procedures in consultation with traditional native religious leaders; and directs federal agencies to evaluate their policies and procedures and to make changes where necessary to protect and preserve Native American religions and their practices.

The *Archaeological Resources Protection Act of 1979* (ARPA), as amended. This act protects cultural resources on federal and Tribe lands; provides for a process of issuing permits to excavate sites on federal and Tribe lands; and establishes criminal penalties for unauthorized or illegal excavation or vandalism of sites on federal and Tribe land. The Department of the Interior issued regulations to implement ARPA and provided standards and procedures for following the Act in 43 CFR Part 7.

The *National Environmental Policy Act of 1969* (NEPA). NEPA is a procedural statute with the twin purpose of requiring a federal agency (1) to take a hard look at environmental impacts and (2) to provide for broad dissemination of relevant environmental information. While not a substantive statute, the statute has, as one of the desired outcomes identified in its introductory section, the preservation of important historic, cultural, and natural aspects of the United States' national heritage, where possible. FERC coordinates actions taken to fulfill its obligations under cultural resource preservation statutes with its NEPA obligations. NEPA required documents (environmental assessment or environmental impact statement) provide a vehicle for documentation and review of FERC cultural resource compliance on a project-by-project basis. The Council on Environmental Quality (CEQ) has regulations implementing the NEPA. These are found at 40 CFR 1500. FERC's NEPA regulations supplementing those of the CEQ can be found at 18 CFR 380.

The *National Historic Preservation Act of 1966* (NHPA) (54 USC 300101 et seq.), as amended (1976, 1980, 1992, 2004). The NHPA defines historic preservation to include "the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or

culture." The NHPA created the National Register, a listing of historic properties of national, regional, state and local significance; established the ACHP, an independent federal agency responsible for administering the protective provisions of the Act; directed states to appoint SHPOs; provided federal agencies the authority to withhold from disclosure to the public, information about the location, character, or ownership of a historic resource, and required federal agencies to "take into account" the effects of their undertakings on properties on or eligible for the National Register and provides the ACHP an opportunity to comment on the undertaking under Section 106 of the Act. The process is found at 36 CFR 800 (see below).

The Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) (NAGPRA). For activities on federal lands, NAGPRA requires consultation with "appropriate" Tribes prior to the intentional excavation, or removal after inadvertent discovery, of several kinds of cultural items, including human remains and objects of cultural patrimony. Federal agencies and Tribes will recommend avoidance of these items and project sponsors should consider route or project modifications to avoid impacts. Remains may be removed from federal or tribal land only after: - a permit under the ARPA is issued; affiliation has been determined; and consultation with (or consent of, if tribal lands are involved) the appropriate Tribe with proof of consultation or consent is shown; and if there is an inadvertent discovery of Native American remains or "cultural items" on federal or tribal lands (including in the course of a construction project), that the activity stop, the remains be protected and respected, and the land-managing agency and the appropriate Native American group be notified.

The Secretary of the Interior has issued regulations for NAGPRA at 43 CFR 10.

The Bureau of Ocean Energy Management, Regulation, and Enforcement of the Department of the Interior has regulations requiring outer continental shelf operators of federal oil, gas, sulphur, and salt leases and pipeline right-of-way holders to conduct surveys and prepare reports. 30 CFR 250.194

36 CFR 60. *National Register.* These regulations describe the criteria used to determine whether a property is eligible for the National Register; and the process for nominating a property to the National Register.

36 CFR 61. *Procedures for Approved State and Local Government Historic Preservation Programs.* Appendix A describes the minimum qualifications for professionals in the fields of history, archaeology, architectural history, architecture, and historic architecture.

36 CFR 79. *Curation of Federally-Owned and Administered Archeological Collections.* These regulations establish definitions, standards, procedures, and guidelines to be followed by federal agencies to preserve collections of prehistoric and historic material remains, and associated records, recovered under the authority of federal law, including the NHPA.

36 CFR 800. *Procedures of the ACHP for the Protection of Historic Properties.* These regulations define the process to be used by federal agencies to meet their responsibilities

under Section 106 of the National Historic Preservation Act. Among other things, these regulations describe the process by which the Advisory Council renders its comments on a federal undertaking to the responsible federal agency. These regulations also provide federal agencies the authority to address confidentiality concern by Tribes and others.

Abandoned Shipwreck Act Guidelines (55 FR 50116-50145). The NPS issued this document in 1990 as a requirement of the *Abandoned Shipwreck Act of 1987* (43 USC 2101-2106). The guidelines provide advice to federal and state agencies on shipwreck management programs and contain special guidance for "historic" shipwrecks.

Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-42). Among other things, it describes the results to be achieved by federal agencies when planning for the identification, evaluation, and treatment of historic properties.