

121 FERC ¶ 61,052
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Sudeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Grand River Dam Authority

Project No. 1494-300

ORDER MODIFYING AND APPROVING APPLICATION FOR
NON-PROJECT USES OF PROJECT LANDS AND WATERS AND
GRANTING INTERVENTION

(Issued October 18, 2007)

1. Grand River Dam Authority (Grand River), licensee for the Pensacola Hydroelectric Project No. 1494, filed on October 24, 2006, and supplemented on February 1, and June 11, 2007, an application requesting Commission authorization to permit Shangri-La Marina Group, LLC (Marina Group) to use project lands and waters for the construction of a commercial marina at the tip of a peninsula known as Monkey Island on the project's reservoir, Grand Lake O' the Cherokees (Grand Lake), on the Grand (Neosho) River in northeastern Oklahoma. Grand River also requests approval of the Marina Group's proposal to dredge two ponds to enlarge an area known as Davis Cove and install a marina for use by the Shangri-La residential community. As discussed below, we are granting the application with certain modifications and conditions.

Background

2. The 46,500-acre Grand Lake has 1,300 miles of shoreline and extends 66 miles upstream of the Pensacola Project dam.¹ The reservoir's normal maximum water surface elevation is 745 feet Pensacola Datum (PD).² The Commission regulates only a narrow

¹ The Pensacola Project was originally licensed in 1939 and relicensed in 1992. 59 FERC ¶ 62,073 (1992).

² PD is 1.07 feet higher than NGVD (National Geodetic Vertical Datum), which is a national standard for measuring elevations above sea level.

strip of land (of varying distance from the shore) around the reservoir's perimeter.³ Most of the land surrounding Grand Lake is privately-owned, and many areas along the shoreline have been developed with private homes, docks, condominiums, municipal and state parks, and commercial resorts and marinas.

3. The six-mile-long Monkey Island Peninsula, which primarily runs north and south, is located along Grand Lake's north shore about midway between the east and west ends of the lake. State Highway 125 runs down the peninsula to its tip, providing easy access to the residential and recreational developments in the area. At the tip of the peninsula, in the area where the new commercial marina is proposed, there is an existing 163-slip, commercial marina called the Shangri-La Marina, which is operated by Shangri-La Marina, LLC (not affiliated with the Marina Group, the developer for this proposal).

4. Article 410 of the project's license gives Grand River the authority, without prior Commission approval, to grant permission for certain types of non-project use and occupancy of project lands and waters and to convey interests in project lands and waters for certain other types of non-project use and occupancy.⁴ However, the marina facilities proposed by the Marina Group are not within the scope of uses set forth under Article 410, and thus can only be permitted if the Commission approves an application to amend the license to allow the facilities and uses in question.

5. Under the approved Recreation Management Plan for the project,⁵ Grand River monitors recreation use and shoreline development. Grand River's consideration of requests for permission to use its project shoreline lands and waters and its regulation of activities within the project reservoir are guided by its Lake Rules and Regulations, which were issued in June 2006.⁶ These Rules and Regulations set forth provisions for

³ The U.S. Army Corps of Engineers (Corps) manages flowage easement lands around Grand Lake from 745 feet PD up to the elevation of the flood control pool at 757 feet PD. *See* Corps' comment letter, filed March 6, 2007.

⁴ 59 FERC ¶ 62,073 at 63,231.

⁵ *See Grand River Dam Authority*, 84 FERC ¶ 62,144 (1998) (order modifying and approving long-term recreation plan).

⁶ *See* <http://www.grda.com/Water/Publications/Official%20GRDA%20Lake%20Rules%202006.pdf>. Currently, there is no Commission-approved shoreline management plan (SMP) for the Pensacola Project. However, according to Grand River's website, Grand River issued a working final draft of an SMP on September 12, 2007. *See* http://www.grda.com/Water/SMP/SMP_FINAL_DRAFT.doc.

dock permits, including a requirement that Grand River must give prior approval for the construction of any docking facilities within the project boundary. The regulations establish application requirements and permitting procedures for private-use docks and for commercial-use docks.⁷

Description of the Proposal

6. Grand River would permit the Marina Group to construct a commercial marina in the mid-lake area, on the north bank, at the tip of the Monkey Island Peninsula. The proposed marina would consist of four floating boat docks with a total of 170 boat slips (50 covered slips measuring 20 feet wide and 60 feet long, 41 covered slips measuring 18 feet wide and 50 feet long, 74 covered slips measuring 17 feet wide and 45 feet long, and 5 open slips measuring 36 feet wide and 45 feet long); four fuel slips; four personal watercraft fueling ramps; 322 personal watercraft lifts; a ship store; and a boat ramp. A new breakwater would be installed on the eastern end of the outer slips to aid in protecting the marina from lake waves. No dredging or other shoreline development activities are proposed in connection with the construction of this marina.

7. Grand River would also permit the Marina Group to dredge approximately 62,000 cubic feet of material at the upper end of Davis Cove, which is located on the peninsula's west shore about .5 miles up from its tip. Over 2.3 acres of land would be dredged, including two ponds located on the Shangri-La Resort golf course near State Highway 125. The Marina Group would remove two dikes (over which golf cart paths pass) that separate the ponds from Davis Cove and widen the cove area to a maximum of 350 feet. In this area, the Marina Group would install the following: three floating docks with seven open slips measuring 10 feet wide and 30 feet long, 50 covered slips measuring 16 feet wide and 40 feet long, and a 242-foot-long, personal watercraft dock with 50 personal watercraft slips. These facilities would be used by the Shangri-La residential community. The residential boat docks and slips comprising the Davis Cove development are intended to complement a future hotel and conference center, recreation center, wellness center, and condominiums, to be constructed on private land outside of and adjacent to, the project boundary.⁸

⁷ 2006 Lake Rules and Regulations, *id.* at 13-14.

⁸ Duck Creek Homeowners' Association (Homeowners' Association) and Paul and Laurie Ross request that the Commission establish two separate proceedings for the proposed Shangri-La Marina and the Davis Cove development, because they believe these two proposals have no legitimate nexus. However, Grand River is free to request the Commission's approval to permit more than one non-project use in a single

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8. The Commission issued public notice of Grand River's application on November 8, 2006. In response, the Corps filed comments stating that it was unclear whether the dredging proposal entailed temporary or permanent placement of dredged or fill material in the Davis Cove area, which would require prior authorization by the Corps before activity commences. The U.S. Department of the Interior's (Interior) Office of Environmental Policy and Compliance filed comments recommending that sediment sampling be required before any dredging, to address potential impacts that dredging could have on the concentration of heavy metals and contamination of sediments in the lake. The Oklahoma Department of Wildlife Conservation (Oklahoma DWC) also recommended testing at dredging sites for contaminated sediments that could be re-suspended during dredging and recommended that a mitigation plan providing for aquatic habitat enhancements be required to address the potential cumulative impacts of shoreline development and loss of recreational use at Grand Lake.

9. Duck Creek Homeowners' Association (Homeowners' Association) and Paul and Laurie Ross filed timely motions to intervene and Shangri-La Marina, LLC filed comments, all of which oppose the proposal. The developer, the Marina Group, also filed a timely motion to intervene and an answer opposing the Homeowners' Association's motion to intervene. Protests were filed by Donald Dill and Cheryl Lenhart, and comments in support of the proposal were filed by Congressman Dan Boren,

application, and combining two proposals in one proceeding reduces administrative costs associated with the filing. Moreover, the Marina Group states that the Davis Cove slips for the Shangri-La condominium development must be located adjacent to the condominiums to ensure adequate revenues from the condominium sales to support the overall development, thus providing a reasonable basis for considering both proposals together in one proceeding. *See* Marina Group's Answer to Motions To Intervene and Reply Comments, filed December 21, 2006 (hereinafter referred to as the Marina Group's Answer). The Homeowners' Association and the Rosses also assert that Grand River should have required that two separate application fees be paid in advance of approval or completion of dock construction. However, the standard land use article in the license authorizes the licensee to establish a permitting program, and the timing of fee payments is an administrative matter subject to Grand River's permitting authority; it has no relevance to our consideration of its application for non-project uses.

Congressman John Sullivan, Senator Tom Coburn, and Congressman Douglas Cox.⁹ We will grant the Homeowners' Association's motion to intervene,¹⁰ because, as a group of local residents, the Homeowners' Association has demonstrated an interest in the proceeding.

10. The Homeowners' Association argues that Grand River did not provide an adequate public notice period for public participation, did not obtain required permits, granted an unprecedented waiver of permit application fees, and submitted an application that completely disregards the adverse effects on property values, safety, and the right of property owners to quiet enjoyment of their property. The Rosses contend that the Davis Cove marina will directly encroach upon their adjacent property. Both the Rosses and Mr. Dill express concern that the proposed marina in Davis Cove would reduce the value of their homes, cause increased noise and boat traffic in the Cove, and adversely affect the Cove's water quality and navigational safety. The Rosses also assert that Grand River violated its Rules and Regulations by not obtaining floodplain and dredging permits and written permission of homeowners adjacent to the proposed dredging, nor giving notice to property owners within 300 feet of shoreline boundaries.¹¹

⁹ Grand River's application included, as supplemental information, letters addressed to Grand River, from numerous landowners, opposing the proposed marina development and dredging project. *See* Attachment to Grand River's October 24, 2006 filing, entitled "Supplemental Information for Shangri-La Application Packet."

¹⁰ *See* 18 C.F.R. § 385.214(c)(2) (2007). If a timely motion to intervene is opposed, it must be expressly granted.

¹¹ The intervenors argue, incorrectly, that Grand River excluded from its application a wetlands delineation survey, a survey of Davis Cove, and the excavation location, all of which are included in the application, and that it violated the Lake Rules and Regulations by failing to conduct a study of the bottom of Davis Cove; to have the Marina Group stake the property and determine the taking and boundary line of abutting and adjacent property owners; and to undertake various other actions, none of which the Lake Rules and Regulations require. Grand River responds to each of the arguments with supporting documentation, showing that the information is either included in the application or not required by the Lake Rules and Regulations. *See generally* Grand River's Answer to Various Comments on Non-Project Use Proposal (hereinafter referred to as "Grand River's Answer"), filed December 22, 2006. We find no bases for requiring the additional information.

11. In April 2007, the Commission's staff issued for public comment a draft environmental assessment (EA) analyzing the potential impacts of the proposed marinas and dredging. The draft EA concluded that the construction of the marina adjacent to the existing marina at the tip of Monkey Island Peninsula would have some short-term, localized effects on water quality and fishery resources and would not likely adversely affect any archeological and historic properties. The draft EA further found that the Davis Cove development would have some moderate, short- and long-term impacts on water quality, fishery resources, and boating navigation, and on the current use of the cove as a result of an increase in shoreline recreation, noise from increased boating density, and construction of the slips along the shoreline.

12. The Seneca-Cayuga Tribe of Oklahoma filed comments on the draft EA, stating that it had no comment on, or objection to the proposal. Intervenors and commenters opposed to the proposal commented on the draft EA, reiterating their earlier concerns. The final EA, which addresses these comments, is being issued with this order.

Discussion

13. We have reviewed the application pursuant to the Federal Power Act's (FPA) comprehensive development/public interest standard, as informed by the project's Recreation Management Plan, public and agency comments on the proposed non-project use, and the EA. As discussed below, the record indicates that, with certain modifications to the proposal, constructing and operating the proposed facilities would not interfere with licensed project purposes, and would be consistent with the project's recreation plan and the statutory standards by which we regulate hydroelectric projects.

A. Public Notice

14. The Homeowners' Association argues that Grand River failed to allow adequate time and notice for public participation before its Board of Directors unanimously approved the project. Grand River has documented its attempts to involve the public in the permitting process, including public notices of the Marina Group's application in two newspapers and public notice of a public hearing that was held to discuss the proposal after issuance of the other public notices.¹² In any event, this is not a matter within our

As an ancillary argument, the Homeowners' Association asserts that Grand River's commercial permit provisions have never been approved by the licensee's Board, or the Commission, but the Board approved the provisions in March 2006; and the Commission's approval of Grand River's Rules and Regulations is not required.

¹² See Grand River's Answer, *supra* n.11.

jurisdiction, and, in the proceeding before the Commission, we have provided public notice and an opportunity to be heard.

B. Lake Rules and Regulations

1. Proposed Dredging

a. Dredging Permit

15. Several commenters oppose the Marina Group's proposal, arguing that the proposed Davis Cove development does not have the requisite dredging permit and is therefore inconsistent with Grand River's Lake Rules and Regulations, which require a licensee-issued permit for dredging.¹³ The commenters also object to Grand River's statement on its website that it is putting a hold on issuing dredging permits while it develops a shoreline management plan for the project. In addition, the Corps states that the dredging component of the Davis Cove development would require a section 404 permit, unless a "one-step" excavation and removal method is used to place excavated material in a truck bed and haul it to an approved disposal site.¹⁴

16. Grand River states that it has not placed a moratorium on issuing permits,¹⁵ and it did issue a permit for this proposal, consistent with the Lake Rules and Regulations.¹⁶ Although Grand River has established its own dredging permit program, proposals involving the placement of dredged or fill material in any waters of the United States, including wetlands, may require prior authorization from the Corps and issuance of a section 404 permit, pursuant to section 404 of the Clean Water Act (CWA).¹⁷ However,

¹³ Section 300:34-13-1 of the Lake Rules and Regulations provides that no entity may excavate, dredge, stabilize or make any improvement or change on Grand River's land or waters until a permit is issued by Grand River.

¹⁴ See Corps' comment letter, filed March 6, 2007.

¹⁵ See Grand River's Answer, *supra* n.11 at 11.

¹⁶ A copy of the dredging permit is included in Grand River's application.

¹⁷ 33 U.S.C. § 1344 (2000).

the Corps is not requiring a 404 permit for the proposal,¹⁸ because the developer is implementing the one-step excavation and removal method. Should the Marina Group use a different method, it shall, at least 90 days before commencing dredging, submit to the Corps a Work Plan for dredging.¹⁹

b. Floodplain Permit

17. The Homeowner's Association contends that the Marina Group failed to obtain a floodplain permit. Grand River states that the consulting firm that prepared an EA for the proposal, Eagle Environmental Consulting, Inc. (Eagle), contacted the Oklahoma Water Resources Board's (Oklahoma WRB) local floodplain administrator regarding the need for such a permit and that a response was not received.²⁰ However, Eagle's EA includes correspondence from the Oklahoma WRB Flood Plain Manager, stating that a permit is required for projects that "dredge 2000 cubic feet or more from the lake."

18. Based on the agency's reference to "the lake" rather than "the ponds," Grand River asserts that a floodplain permit is not required, because the Davis Cove proposal involves dredging from two ponds.²¹ However, the cove is in the flood pool of Grand Lake, and the Oklahoma WRB clearly articulated a requirement for the floodplain permit in e-mail correspondence on June 23, 2006.²² The Marina Group will obtain a floodplain permit in the event the local floodplain administrator requires one.²³

¹⁸ Letters dated April 18, 2006, and June 26, 2006, from the Corps state that the proposal for marina expansion and dredging project would not require a permit pursuant to section 404 of the CWA. *See* the Corps' comment letters, included as attachments to Grand River's application.

¹⁹ *See id.*

²⁰ A copy of the letter is included among the pre-filing consultation letters in Grand River's application.

²¹ *See* Grand River's Answer, *supra* n.11.

²² *See* e-mail from Ken Morris, Oklahoma WRB to Eagle Environmental Consultants, Inc., included in the application.

²³ *See* Eagle's EA, at 16, attached to Grand River's application.

2. Property Rights

19. The Rosses, who own land adjacent to the dredging site, contend that the Marina Group failed to obtain their permission to conduct the proposed dredging, as required by Grand River's regulations, and that it has been a long-standing policy for Grand River to disallow dredging in front of property not owned by the permit applicant unless the applicant obtains written permission from the landowner.²⁴ A review of Grand River's Rules and Regulations reveals no provision requiring written approval from adjacent landowners for proposed dredging, and Grand River points out that no rule, regulation, or statute requires such approval.

20. The Rosses state that demolition of the dike would cause an unauthorized intrusion on their property and an unlawful taking due to the proximity of the dredging in Davis Cove to their property line.²⁵

21. Grand River retained a registered engineer from the engineering and land surveying company, Rose & McCrary, to review the ownership and legal interests in the lands to be excavated. On June 11, 2007, Grand River filed the survey.²⁶ The survey indicates that the lands to be excavated for construction of the slips are owned either by the Marina Group or Grand River and not a third party. Therefore, it does not appear that the proposed Davis Cove development would cause an intrusion on the adjacent landowners' property.²⁷

²⁴ See Rosses' Supplement to its Motion to Intervene, filed February 27, 2007. The Rosses also contend that Grand River failed to give adequate notice of the application to property owners within 300 feet of the shoreline, but Grand River states that there are no property owners within 300 feet of the shoreline. As stated previously, public notice of the application has been given in the newspapers and in this proceeding before the Commission; and the substantive arguments of intervenors and commenters are addressed in this order.

²⁵ See *id.*

²⁶ The survey is attached as Exhibit B of Grand River's June 11, 2007 supplement.

²⁷ In any event, section 300:35-19-1 of the Lake Rules and Regulations provides that no permit shall be issued for any facilities that would deprive the owner of land adjacent to the shoreline of any anchorage, wharf, dock, boat dock, house boat, and landing privileges. 2006 Lake Rules and Regulations, *supra* n.6 at 27. To the extent

3. Dock Measurements

22. Several commenters contend that the proposed Davis Cove development exceeds the limits established in Grand River's Lake Rules and Regulations requiring that marinas extend no more than 125 feet or one-third of the distance from the adjacent shoreline to the nearest opposite shoreline, whichever is less.

23. In the draft EA staff concluded that the Davis Cove docks exceed the one-third requirement,²⁸ but subsequently, the Marina Group filed information indicating that the docks would comply with the one-third rule. The Marina Group states in its comments on the draft EA that the proposed dock and slips would be constructed and positioned within the cove to ensure that at least one third of the cove remains open water in accordance with Grand River's regulations.²⁹

C. Soil Erosion

24. By letter dated April 18, 2006, the Corps recommends that a silt fence be installed at elevation 757.07 feet PD and that it remain in place for the duration of the project construction as a barrier (to prevent floating and suspended solids from filtering into the main waterbody during dredging).

25. The Commission's staff concluded in the EA that impacts associated with sedimentation and turbidity from dredging should be adequately mitigated if the Marina Group installs a silt fence for soil and erosion control and either implements a "one-step"

there is any dispute as to property rights, it should appropriately be resolved in a state forum.

²⁸ Grand River's Board of Directors also determined that the proposal was inconsistent with the one-third rule and conditioned its approval on the requirement that the docks be reconfigured to eliminate the inconsistency. *See* the Board of Directors' Minutes, included in Grand River's application.

²⁹ Commenters also argue that the proposed development violates the regulation requiring that boat slips be installed perpendicular to the shoreline. However, the Marina Group requested waiver of this requirement, and the Board of Directors granted a waiver at its regular meeting held October 11, 2006; a copy of the minutes of that meeting is included in the application. Grand River is empowered to waive its dock regulations, provided that granting a waiver does not cause an interference with the licensed project purposes.

excavation and removal method or prepares a work plan in accordance with the Corps' recommendations.³⁰ In its comments on the draft EA, the Marina Group states that it plans to use the one-step excavation and removal method and dispose of the material above elevation 757.0 feet PD, as the Corps requests.³¹ We are requiring that Grand River include in any permit issued, a requirement that a silt fence be installed, the one-step excavation method be implemented, and a work plan be developed consistent with the Corps' recommendations.

D. Sediments Testing

26. Interior, Oklahoma DWC, the Homeowner's Association, and Cheryl Lenhart recommend testing for contaminated sediments before any dredging occurs. Grand River filed a response to these comments.³² Making a distinction between "dredging" and "excavating,"³³ Grand River states that testing would not be useful and should not be required, because the proposed excavation does not appear to be at high risk for metals contamination.³⁴

27. As explained in the EA, it is possible for sediments containing significant amounts of metals to be disturbed by the proposed excavation, and sediment testing and monitoring would reveal any presence of contaminants.³⁵ We are requiring that Grand River include, in any permit issued, a requirement that sediments testing for the presence of heavy metals be conducted prior to dredging activity and after dredging (to determine

³⁰ Final EA section 5.2.1.2.

³¹ See the Marina Group's comments on Draft Environmental Assessment, filed May 1, 2007.

³² See Grand River's Answer, *supra* n.11 at 2-4.

³³ Grand River clarifies that the proposed activity at the two ponds is more accurately described as "excavation" rather than "dredging," because the Corps determined (in a June 26, 2006 letter included in Grand River's application) that excavation activities, which involve no more than incidental discharges, as proposed here, do not require authorization under section 404.

³⁴ See Grand River's Answer, *supra* n.11 at 3-4.

³⁵ Final EA section 5.2.2.2.

if any contaminants exist within Davis Cove), and a requirement that a heavy metal monitoring plan be developed in consultation with the FWS and the Oklahoma DWC.

E. Water Quality

28. Several commenters express concern that the proposed facilities would significantly affect water quality. As explained in the EA,³⁶ construction of the marina adjacent to the existing marina would have some short-term, localized effects on water quality due to increased turbidity and sedimentation; and excavation of the two ponds, removal of the dikes, and construction of the proposed docks at Davis Cove would have some localized, short-term, moderate effects on water quality within the cove. The proposed docks will be constructed on shore and floated into place; therefore, construction-related impacts on water quality would be minimized.

29. Increases in recreational boating attributable to use of the proposed docking facilities could result in long-term effects on Grand Lake's water quality.³⁷ Additional traffic from boats and personal watercraft could result in oil discharges and leaks, overboard discharges of waste, and accidental fuel spills.³⁸

30. As part of the Oklahoma WRB's Beneficial Use Monitoring Program, Grand River conducts water quality monitoring on Grand Lake to determine if boating or other activities are impairing the lake's beneficial uses and values.³⁹ Grand River has also established lake-wide sanitation rules to protect water quality and public health. The rules prohibit, among other things, the discharge, deposit, or dumping of bilge water containing oil and grease, and any other materials into the lake and on the lake's adjacent shore lands and the disposal of sewage in the waters and on the shore lands of the lake. Grand Lake's patrol is responsible for monitoring compliance with these rules. We find that the Oklahoma WRB's monitoring program and Grand River's rules will adequately address any potential long-term impacts.

³⁶ *Id.*

³⁷ *See id.*

³⁸ *See id.*

³⁹ *Id.* Section 5.2.2.

F. Fish and Wildlife Habitat

31. The Oklahoma DWC expresses concern about the potential cumulative effects that shoreline development at Grand Lake may have on aquatic resources and recommends an aquatic vegetation program as mitigation for loss of land and water. Grand River states that it currently provides fish and wildlife habitat mitigation pursuant to Article 411 of its license, and that it remains committed to improving the aquatic habitat of its lakes through expenditures of approximately \$266,000 (in the past two or three years) for a comprehensive aquatic vegetation planting program, including routine water monitoring and the introduction of both aquatic plants to the littoral zone of Grand Lake and multiple species at various water levels.⁴⁰

32. As explained in the EA, excavation of the ponds, removal of the dikes, and construction of the docks at Davis Cove will temporarily affect fish and their habitat and are likely to temporarily displace fish from Davis Cove.⁴¹ Minor disturbance to wildlife and removal of vegetation would occur in the dike area that is nearest to the cove, as some trees and shrubs would be removed during construction and after the docks and walkways are installed.⁴² Reconnecting of the ponds with Davis Cove would increase the amount of aquatic habitat available to fish, since the ponds were previously isolated from the main body of the lake.⁴³ Grand River proposes to restore affected vegetation with native herbaceous species that provide the most benefit for wildlife, habitat, and aesthetics.

33. Although impacts to terrestrial and aquatic resources would be minor and short-term, to mitigate these impacts and to enhance terrestrial and aquatic resources, we are requiring that prior to construction, Grand River file for Commission approval, a mitigation plan with measures to offset the disturbances to shoreline and riparian resources that would occur during the proposed dredging activities.

⁴⁰ See Grand River's Answer, *supra* n.11 at 4-5.

⁴¹ Final EA Section 5.2.2.2.

⁴² *Id.* Section 5.2.1.2.

⁴³ *Id.*

G. Threatened and Endangered Species

34. In a letter filed June 19, 2007, the Fish and Wildlife Service (FWS) concurs, in part, with Commission staff's finding that construction and operation of the proposed marina and dredging projects are not likely to adversely affect threatened and endangered species. The FWS expresses a concern regarding potential impacts on the federally listed, endangered American burying beetle. The FWS states that the probability of this species occurring in the Grand Lake area is high, because: the project is within the American burying beetle's historic range; the beetle is very mobile; and it is known to occur in some surrounding and adjacent counties. The FWS therefore recommends that a survey be conducted to determine the presence or absence of the species within the immediate project area. We are requiring that Grand River include in any permit issued, a requirement that the permittee conduct an American burying beetle survey, as prescribed by the FWS and consistent with the FWS' survey protocol, which is posted on its American burying beetle web site.

H. Public Access, Public Safety, and Navigation

35. Oklahoma DWC is concerned with the loss of shoreline access to recreational users. We believe an adequate amount of recreational space and open water will remain available after the docks are installed to safely accommodate appropriate boat-related activities.⁴⁴ We find the enlargement of Davis Cove would increase the amount of available shoreline in the immediate area, thereby increasing recreational opportunities overall at Grand Lake. However, the cove will be impacted by increased boating density and shoreline use in the cove. In addition, while the new marina constructed at the tip of Monkey Island Peninsula will diminish the quality of shoreline recreational activities in the immediate area for those engaged in more passive recreation, such as near-shore fishing, continued access to the reservoir would allow anglers to effectively use less-developed areas of the project's waters.

36. Mr. Dill contends that Davis Cove is too narrow to accommodate traffic created by the project. The Rosses argue that the cove is too shallow to permit safe navigation, particularly with the proposed increase in boating density,⁴⁵ and that as a result, the cove

⁴⁴ See Final EA section 5.2.3.2.

⁴⁵ Mr. Dill and the Rosses make an additional argument that the proposed development will have a negative impact on property values. However, they provide no information to support their claim, and waterfront property tends to appreciate in value. The proposed development will provide increased recreational opportunities and may possibly provide a valuable asset to the residents of the Shangri-La community, thereby

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cannot meet the requirement in Grand River's rules that at least a six-foot water depth be available for navigation.⁴⁶ Shangri-La Marina, LLC raises safety concerns regarding the proximity of additional watercraft to its existing marina.

37. The Davis Cove development would have some moderate short and long-term effects on boating and navigation within the cove. During high periods of boat usage, such as weekends and holidays, and during storm events, increased boating congestion may occur near the entrance and exit points of the docks in Davis Cove and the marina at the tip of the Monkey Island Peninsula,⁴⁷ but there is no evidence that an inordinate amount of incidents are likely to result from the increased usage.⁴⁸

38. The proposed docking facilities in Davis Cove are designed to provide adequate ingress and egress of boat traffic with a distance of 150 feet between the docks. As stated previously, the Marina Group's proposal calls for the cove area to be widened to a maximum of 350 feet. The proposal adds 1,480 feet of usable acreage back to the cove that was removed when the dikes were installed.⁴⁹ With the proposed design of 40-foot-long docks, as extended 30 feet by a 6-foot-long head pier and walkway, the proposed

potentially increasing property values in the surrounding area. The Oklahoma Department of Commerce prepared an economic impact analysis on phase I of Shangri-La's plan and determined that the plan will increase local property values. *See* Meeting Minutes of the Assets Committee of Grand River's Board of Directors at 2, attached as Exhibit A of Grand River's June 11, 2007 supplement.

⁴⁶ The Lake Rules and Regulations provide that the length and width of approved boat channels shall not exceed the dimensions necessary to achieve six-foot water depths for navigation at the minimum projected water elevation. *See* 2006 Lake Rules and Regulations, section 300:35-13-3.

⁴⁷ *Id.*

⁴⁸ The last recreation report that Grand River filed with the Commission on July 2, 2003, indicates that two incidents occurred in the channel in 2002, which was down from seven incidents in 2001. If an accident occurs, Grand River is required to promptly file an accident report under Part 12 of the Commission's regulations. 18 C.F.R. Part 12, § 12.10 (2007). Grand River must also file an incident report as part of the recreation report that is required every six years; the next report is due in 2009.

⁴⁹ *See* Attachments 1 (survey) and 4 (aerial photo of Davis Cove) of the Marina Group's Answer, *supra* n.8.

width would provide adequate space to accommodate the new docks without posing significant navigational or safety concerns.⁵⁰ Compliance with the one-third cove rule will ensure that sufficient room remains for navigation. Furthermore, while the traffic generated by the proposed docking facility would increase the number of boats in this portion of Grand Lake, the additional traffic generated by the proposed facility will be dispersed temporally throughout the day and geographically throughout the lake as each boat travels to its preferred destination.

39. The Marina Group submitted information refuting the Rosses' argument that the cove is too shallow to meet the six-foot requirement.⁵¹ The Marina Group measured the depth in the cove at the narrowest point between Mr. Dill's and the Rosses' docks and found the depth to be approximately 9 feet at lake level 741.41. When the lake reaches the target level of 742 feet, there is an expected increase to approximately 10 feet.

40. With regard to safety concerns, Grand River has safety rules in place, which are enforced by its lake patrol. Its rules and regulations governing lake use require all boats in a cove's navigational channel to operate at low idle speeds, which serves to prevent unsafe boating practices or hazards to swimmers and anglers. Moreover, while boating densities in the lake and the Davis Cove area are increasing, there is no evidence that the cove has reached its carrying capacity.⁵² To accommodate increasing numbers of boats in Davis Cove, Grand River's Rules and Regulations include a number of boating-related requirements to address boating and navigation concerns. These requirements include night-time speed limits, no-wake zones, and activity restrictions and prohibitions for skiing and vessel-operating distances.⁵³ The Marina Group states that it will implement such additional safety and navigational measures as Grand River may require.⁵⁴ We are

⁵⁰ EA section 5.2.3.2.

⁵¹ See the Marina Group's Answer, *supra* n.8.

⁵² A draft Carrying Capacity Study, which Grand River is developing in conjunction with the SMP, indicates that no area of the lake is near capacity, except isolated locations that are not in the vicinity of the project. See Grand River's Answer at 15. On August 6, 2007, the Homeowners' Association filed comments asserting that the study is flawed and unreliable, but its comments do not address the specific finding regarding the area's capacity. Grand River filed a response to the Homeowners' Association's pleading on August 21, 2007, stating that the study contains factual and reliable information.

⁵³ See generally 2006 Lake Rules and Regulations, *supra* n.6.

requiring that Grand River file a report specifying the measures that will be implemented to ensure navigational safety within Davis Cove.

41. Given the configuration of the proposed docks, we find the proposed facilities should have an insignificant effect on boating traffic and safety. With the enforcement of the speed limits in the “no-wake” zone in Davis Cove, the navigational channel should be sufficient for safe passage, and the impact of boats entering and leaving the docks should not be a significant navigational safety concern.⁵⁵

I. Alternatives to the Proposed Action

42. As alternatives to the proposed development, the attached EA considers a no action alternative, which denies Grand River’s application; a staff-identified alternative; which eliminates the development of Davis Cove; and four alternatives described in Grand River’s February 1, 2007 supplement, which call for Grand River: (1) to build the residential slips adjacent to the eighteenth fairway of the golf course located south of the Marina Group’s property; (2) acquire private lands with shoreline along Davis Cove so that removal of the two dikes would not be necessary; (3) acquire waterfront property in nearby Point Marina, located on the south eastern tip of the peninsula; and (4) partner with Shangri-La Chateau’s Homeowner’s Association, located south of Davis Cove, to combine the Chateau’s pond with a Shangri-La pond on the golf course.⁵⁶

43. The alternatives described by Grand River would require relocating and reconfiguring the Davis Cove development. These alternatives pose challenges and

⁵⁴ See the Marina Group’s Comments on the Draft EA, *supra* n.33.

⁵⁵ The Rosses and Mr. Dill also express concern that the proposed marina in Davis Cove will cause increased noise. During construction of the proposed marina facilities and the proposed excavation, machinery and equipment operations and other construction-related activities would cause temporary noise-producing disturbances. The additional boats resulting from the proposed marina facilities would also cause intermittent increases in the area’s ambient noise levels. However, given the current noise levels in the cove from boaters, residents, and vehicular traffic, these incremental noise increases are not expected to cause any major aesthetic disturbances. To address noise abatement, section 300:35-7-6 of Grand River’s Rules and Regulations prohibits anyone from operating a vessel that exceeds the noise level of ninety decibels within fifty feet of any public or private dock or at any location between 9:00 p.m. and 9:00 a.m.

⁵⁶ See EA section 3.3.

additional concerns, including safety impacts, the need for a larger breakwater system that would occupy a significant portion of Grand Lake, shallow water, significant winds, less parking space, restrictive covenants, access issues, and the need to negotiate multiple property purchases from individual landowners.⁵⁷

44. According to Grand River, the described alternatives and the staff-identified alternative would jeopardize the economic feasibility of the entire development, because the residential marina in Davis Cove is dependent on revenues from the future condominium sales; and the condominiums would not be economically viable at the proposed location without the slips for residents at the proposed residential marina.⁵⁸ While the Marina Group does not specify the exact revenue figures, it explains that a loss of the close proximity between the proposed condominiums and the residential slips proposed for Davis Cove would result in a loss of revenue that would otherwise be available and necessary to ensure adequate income from the condominium sales to support the overall development.

45. As previously discussed, the Marina Group's proposal provides increased recreational opportunities for the Shangri-La residential community, and it is consistent with Grand River's Rules and Regulations. Although the Davis Cove development would have minor and moderate impacts on the environment, Grand River implements, and we are requiring, measures that will mitigate the potential adverse impacts of the proposed developments. Grand River's obligation to carry out the provisions of its Lake Rules and Regulations and to comply with the requirements of its approved Recreation Management Plan and the conditions of its license should further ensure that any adverse impacts are mitigated.

Conclusion

46. We conclude that construction and operation of the proposed facilities and the proposed dredging will not constitute a major federal action significantly affecting the quality of the human environment, will not interfere with the licensed project purposes, and will be consistent with the statutory standards by which we regulate hydropower projects. Accordingly, we approve Grand River's application to permit the proposed use of project lands and waters, as modified below.

⁵⁷ See Grand River's supplement filed February 1, 2007.

⁵⁸ See *id.* For this reason, the Marina Group states that the residential marina must be located adjacent to the condominiums.

The Commission orders:

(A) Grand River Dam Authority's application for non-project use of project lands and waters of the Pensacola Project No. 1494, filed on October 24, 2006, and supplemented on February 1, and June 11, 2007, is approved, as conditioned below.

(B) The facilities shall comply with the requirements of Grand River Dam Authority's Lake Rules and Regulations (issued June 2006), including the requirement that the facilities extend no more 125 feet or one third of the distance from the adjacent shoreline to the nearest opposite shoreline, whichever is less. At least 90 days prior to construction, the licensee shall file with the Commission, a report specifying measures to ensure navigational safety within Davis Cove consistent with the licensee's Lake Rules and Regulations.

(C) The licensee shall include the following conditions in the permit issued to Shangri-La Marina Group, LLC, as approved in Ordering Paragraph (A) above:

(1) Upon discovery of any previously unidentified archeological or historic properties during construction of the marina facilities covered by the permit, the permittee shall immediately stop all land-disturbing and land-clearing activities and contact Grand River Dam Authority, the Oklahoma State Historic Preservation Officer, and any Native-American tribes/groups that may have an interest in the discovery.

(2) Using standard, best management practices, the permittee shall implement measures for soil and erosion control, including silt fence installation at elevation 757.07 Pensacola Datum would remain in place as a barrier for the duration of the construction of the marina and restoration of the cove area.

(3) The permittee shall implement the "one-step" excavation and removal method in Davis Cove, and dispose of the material above elevation 757.0 feet PD, as instructed by the U.S. Army Corps of Engineers. Should the permittee use a different method, it shall, at least 90 days before commencing dredging, submit to the U.S. Army Corps of Engineers (Corps), a Work Plan for dredging, consistent with the Corps' requirements in its March 6, 2007 filing in this proceeding.

(4) The permittee shall file for Commission approval, at least 90 days prior to construction, a storm water pollution prevention plan, as proposed by the licensee in its application.

(5) The permittee shall, in consultation with the Oklahoma Department of Wildlife Conservation and the U.S. Department of the Interior's Fish and Wildlife Service, conduct sediments testing for the presence of heavy metals in Davis Cove prior to commencing dredging activity, including adequate testing with composite core samples, and sediment screening within Davis Cove after dredging activities have ceased. The permittee shall file the results of the testing with the Commission at least 90 days prior to construction. Should the results of this testing reveal the presence of contaminants, the permittee shall notify the licensee, who must then develop, in consultation with the appropriate resource agencies, a mitigation and implementation plan describing specific measures to address contaminant levels. The licensee shall file the plan with the Commission and obtain Commission approval of the plan before commencing any construction or dredging activities in Davis Cove.

(6) The permittee shall develop a heavy metal monitoring plan in consultation with the U.S. Department of the Interior's Fish and Wildlife Service and the Oklahoma Department of Wildlife Conservation and shall file the plan for Commission approval at least 90 days prior to construction.

(7) At least 90 days prior to construction, the permittee shall file for Commission approval, a shoreline and riparian resources mitigation plan. The mitigation plan shall include but not be limited to measures to offset disturbances to shoreline and riparian resources that would occur during the proposed dredging activities.

(8) The permittee shall conduct an American burying beetle survey, consistent with the FWS' requirements in its June 19, 2007 letter, and the FWS' survey protocol and file for the Commission's information, a copy of the results of the American burying beetle survey. If the survey results show that the American burying beetle is found to exist within the disturbed Davis Cove area, the licensee must file for Commission approval a mitigation plan at least 90 days prior to construction.

(9) The permittee's use of project lands and waters shall not endanger health, create a nuisance, or otherwise be incompatible with the project's overall purposes, including public recreation and resource protection.

(10) The permittee shall take all reasonable precautions to ensure that its use of project lands and waters will occur in a manner that will protect the scenic, recreational, and other environmental values of the project.

(11) The permittee shall reserve to the licensee the right to supervise and control the permittee's shoreline development activities to ensure that all conditions are properly implemented, including mitigation measures required by this order as well as the related permit conditions and agency recommendations the permittee has agreed to implement.

(D) Prior to the start of any construction activities related to removal of the dikes in Davis Cove, the licensee shall submit one copy of its plans and specifications to the Commission's Division of Dam Safety and Inspections (D2SI) – Atlanta Regional Engineer, and two copies to the Commission (one of which shall be a courtesy copy to the Director, D2SI). The licensee may not begin removal of the dikes until the D2SI – Atlanta Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized start of construction.

(E) The motion to intervene filed in this proceeding by the Duck Creek Homeowners' Association on December 6, 2006, is granted.

(F) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713 (2007).

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Acting Deputy Secretary.

FINAL ENVIRONMENTAL ASSESSMENT

**APPLICATION FOR NON-PROJECT USE
OF PROJECT LANDS AND WATERS**

Pensacola Project
FERC No. 1494-300
Oklahoma



Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
888 First Street, NE
Washington, DC 20426

October 2007

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ACRONYMS AND ABBREVIATIONS

APE	area of potential effects
CDT	Central Daylight Time
Commission or FERC	Federal Energy Regulatory Commission
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
DO	dissolved oxygen
EA	environmental assessment
FWS	U.S. Fish and Wildlife Service
Grand Lake	Grand Lake O' the Cherokees
GRDA or licensee	Grand River Dam Authority
Interior	U.S. Department of the Interior, Office of the Secretary
msl	mean sea level
National Register	National Register of Historic Places
OAS	Oklahoma Archaeological Survey
OCC	Oklahoma Conservation Commission
ODEQ	Oklahoma Department of Environmental Quality
ODWC	Oklahoma Department of Wildlife Conservation
OHS	Oklahoma Historical Society
ONHI	Oklahoma Natural Heritage Inventory
OOSE	Oklahoma Office of the Secretary of the Environment
OWRB	Oklahoma Water Resources Board
PD	Pensacola Datum
PWC	Personal Watercraft
Rules and Regulations	Rules and Regulations Governing the Use of Shorelands and Waters of GRDA
SHPO	State Historic Preservation Officer
TSI	Trophic State Index

ENVIRONMENTAL ASSESSMENT

**Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
Washington, DC**

**Pensacola Project
FERC Project No. 1494-300**

1.0 APPLICATION

Application Type: Non-Project Use of Project Lands and Waters
Date Filed: October 24, 2006
Applicant: Grand River Dam Authority
Water Body: Grand Lake O' the Cherokees
Nearest Town: Grove
County & State: Delaware County, Oklahoma

2.0 PURPOSE AND NEED FOR ACTION

On October 24, 2006, the Grand River Dam Authority (GRDA or licensee), licensee for the Pensacola Project (No. 1494), filed an application and an applicant-prepared environmental assessment (EA) for non-project use of project lands and waters on Grand Lake O' the Cherokees (Grand Lake). GRDA also filed additional information on February 1, and June 11, 2007 pursuant to additional information requests from the Federal Energy Regulatory Commission (Commission).⁵⁹ Specifically, GRDA requests approval from the Commission to permit Shangri-La Marina Group, LLC, to install a commercial marina including 4 boat docks with 170 boat slips; 4 fuel slips; 4 personal watercraft (PWC) fueling ramps; 322 PWC lifts; and a ship store, fuel service, boat ramp, and a breakwater for commercial purposes. In addition, GRDA requests Commission approval to permit Shangri-La Marina Group, LLC to dredge two ponds located on the Shangri-La golf course at the end of Davis Cove and install four docks with 57 boat slips and 50 PWC slips for use by the Shangri-La residential community. The purpose of the proposed action is to complement a hotel and conference center, wellness center/spa, condominiums, and recreation center expected to be constructed on private land outside and adjacent to the project boundary.

⁵⁹ The Commission requested additional information from GRDA in letters dated January 17, and May 18, 2007.

The license for the Pensacola Project contains a standard article (Article 410) delegating to the licensee the authority to grant permission for certain types of non-project use and occupancy of project lands and waters without prior Commission approval (FERC, 1992). However, this proposal is not within the scope of Article 410's provisions and, therefore, can only be permitted if the Commission approves GRDA's application.

The Commission has conducted an environmental review of the Shangri-La Marina Group, LLC, proposal to determine whether and under what conditions GRDA's application should be approved. This EA, which addresses all relevant issues raised in this proceeding, will be used to support the Commission's decision on the licensee's application.

3.0 PROPOSED ACTION AND ALTERNATIVES

3.1 Proposed Action

Shangri-La Marina Group, LLC, proposes to construct a commercial marina in the mid-lake area, on the north bank, at the tip of a peninsula known as Monkey Island on Grand Lake. The commercial marina would be located on the mainstem of the lake (figure 1) and would consist of 4 boat docks with 170 boat slips; 4 fuel slips; 4 PWC fueling ramps; 322 PWC lifts; and a ship store, fuel service, boat ramp, and a breakwater for commercial purposes. These proposed facilities would be located near the Town of Grove, Oklahoma, on Grand Lake in Section 15 (SW/4), Township 24 North, Range 23 East, in Delaware County. The proposed marina would consist of:

Slip Size	Number and Type of Slips
20 feet x 60 feet	50 covered
18 feet x 50 feet	41 covered
17 feet x 45 feet	74 covered
36 feet x 45 feet	5 open
Fuel slips	4
PWC	322
Total	496

The proposed docks would be situated parallel to the shoreline (figure 2) and would consist of four floating docks. The length of the two floating docks south of the shoreline would measure approximately 1,284 feet long. The longest boat dock located west of the shoreline would measure 922 feet long, and the last dock, which would accommodate the ship store, four fueling slips, and 14 covered slips, would measure approximately 615 feet long. Two bridges about 10 feet wide would connect the boat docks to the shoreline, and the walkways would be 12 feet wide. The proposed facilities would extend into the lake between 260 and 270 feet. The floating docks would be

tethered by retractable cables and anchored at the entrance/exit ramps on the shoreline. The four proposed docks would be placed along approximately 2,350 feet of shoreline.

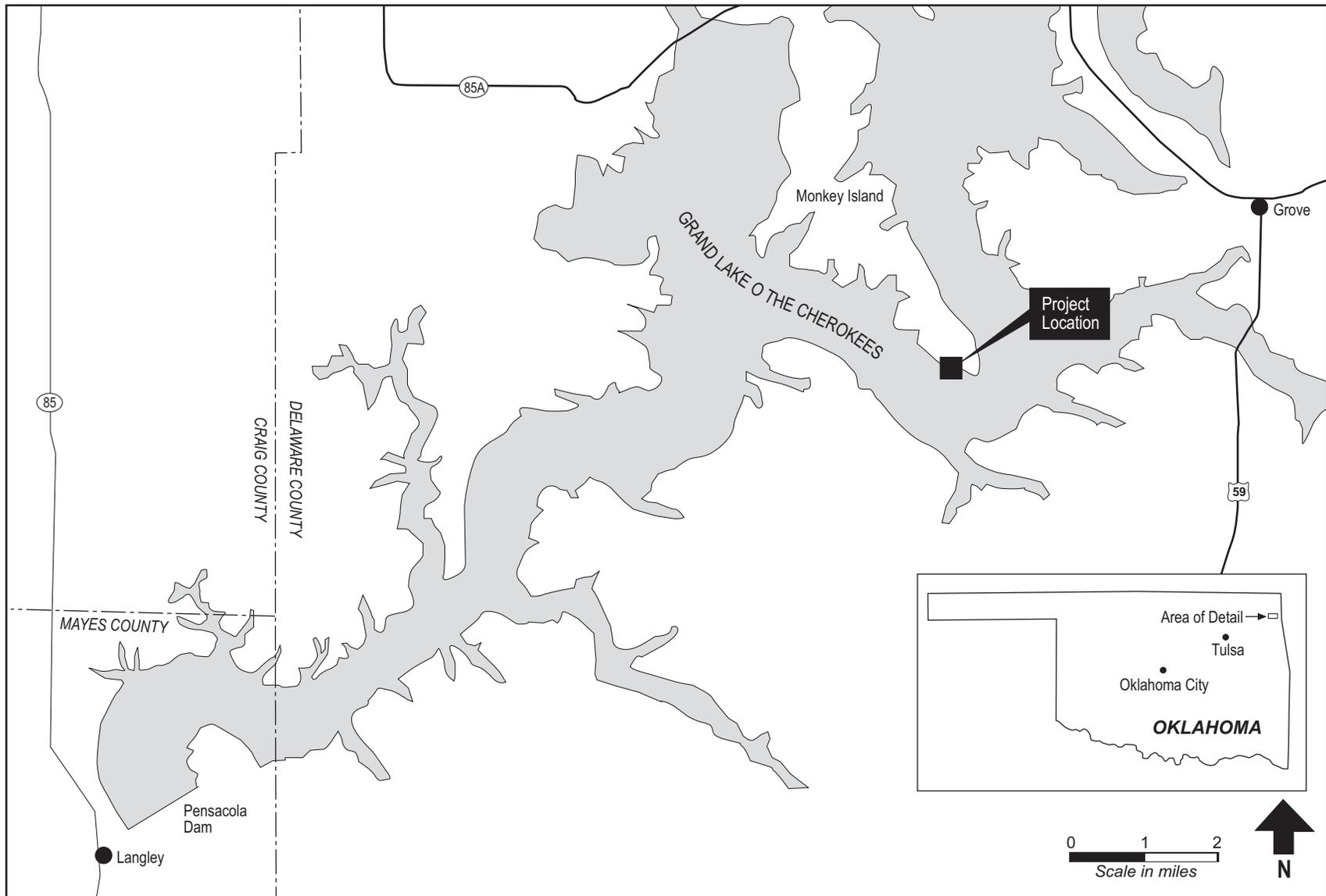


Figure 1. Pensacola Project location map.

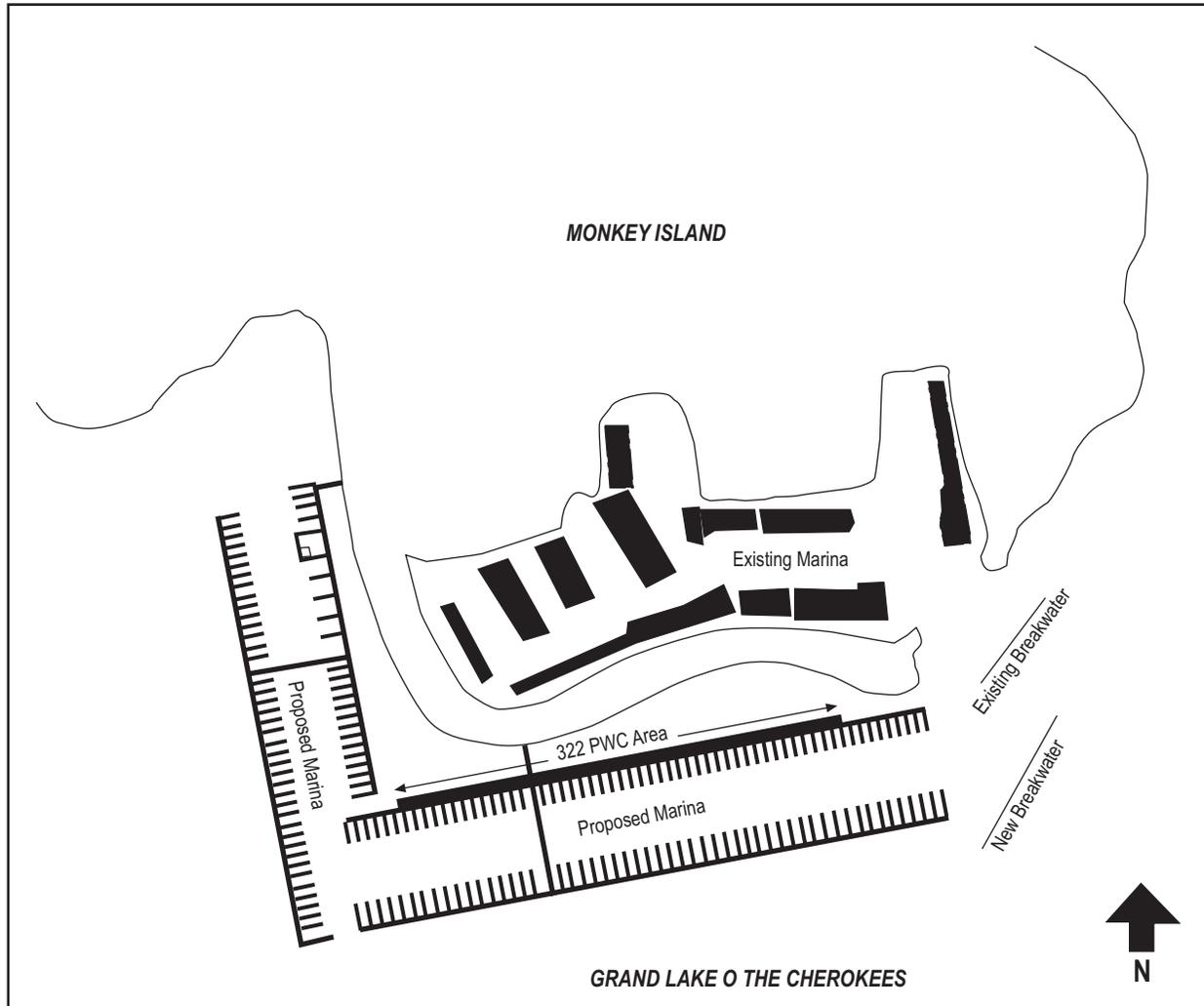


Figure 2. Proposed action—marina layout.

A new breakwater would be installed on the eastern end of the outer slips to aid in the protection of the marina from lake waves. No dredging or other shoreline development activities are proposed in connection with this new marina.

In addition, GRDA requests Commission approval to permit Shangri-La Marina Group, LLC to dredge two man-made ponds also located at the end of Davis Cove on Monkey Island (figure 4) near the Shangri-La golf course. These two ponds were originally part of Davis Cove. The upper end of Davis Cove was divided into two small ponds in the 1980s with the construction of two golf cart paths that traveled over two man-made dikes that divided the cove. Shangri-La Marina Group, LLC proposes to remove the two golf cart dikes and install three floating docks with 57 boat slips and 50 PWC slips for use by the Shangri-La residential community along the cove’s shoreline. The existing (easternmost) pond width at the cart bridge currently measures 152 - 180 feet wide based upon its unusual shape. The pond further narrows to 73 feet wide at the up-gradient portion (back) of the pond nearest State Highway 125. The cove would be dredged to a maximum width of 350 feet. A 75-foot buffer would be retained between the upper end of the cove and State Highway 125. The proposed dredging operation would consist of the removal of approximately 62,000 cubic yards⁶⁰ of material. The docks in this area would consist of the following:

Slip Size	Number of Slips
10 feet x 30 feet	7 open
16 feet x 40 feet	50 covered
PWC	50
Total	107

The proposed docks would be located along the shoreline in the back of the cove (see figure 3). The proposed floating dock nearest the boat ramp would be 512 feet long and would include twenty-two 16-feet by 40-feet covered slips and seven 10-feet by 30-feet open slips. The opposite floating dock would measure 535 feet long and would include twenty eight covered slips measuring 16-feet by 40-feet. The application includes a drawing indicating there would be a distance of about 150 feet across the cove between these two docks. The PWC dock would be 242-feet long and would contain 50

⁶⁰ In the original application filed with the Commission on October 24, 2006, GRDA approximated 100,000 cubic yards of material would need to be removed from Davis Cove. On June 11, 2007, GRDA filed additional information with the Commission clarifying the approximate amount of material expected to be removed from Davis Cove was closer to 62,000 cubic yards.

PWC slips. The docks would be tethered by retractable cables and anchored at the entrance/exit ramps on the shoreline. The proposed boat docks would be placed along approximately 1,400 feet of shoreline.

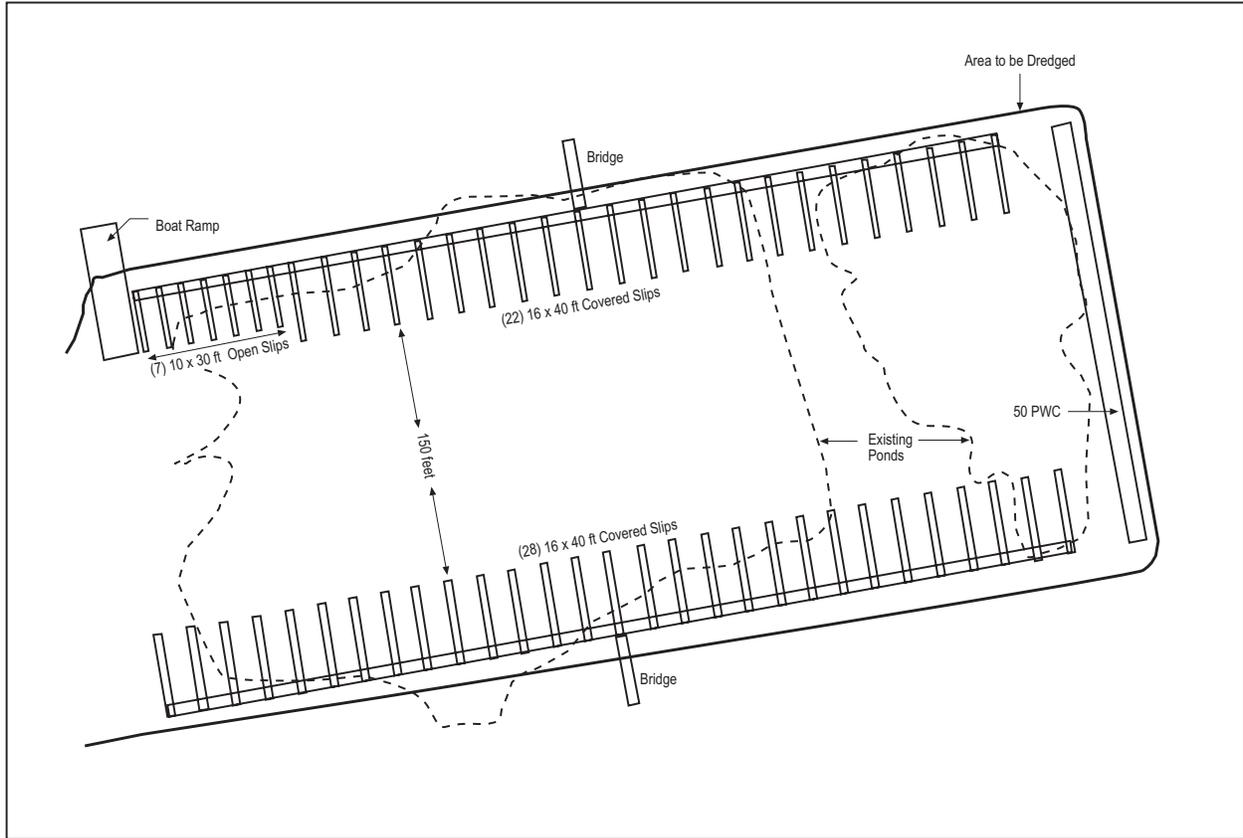


Figure 3. Proposed docks for Davis Cove (figure provided by applicant and not drawn to scale).

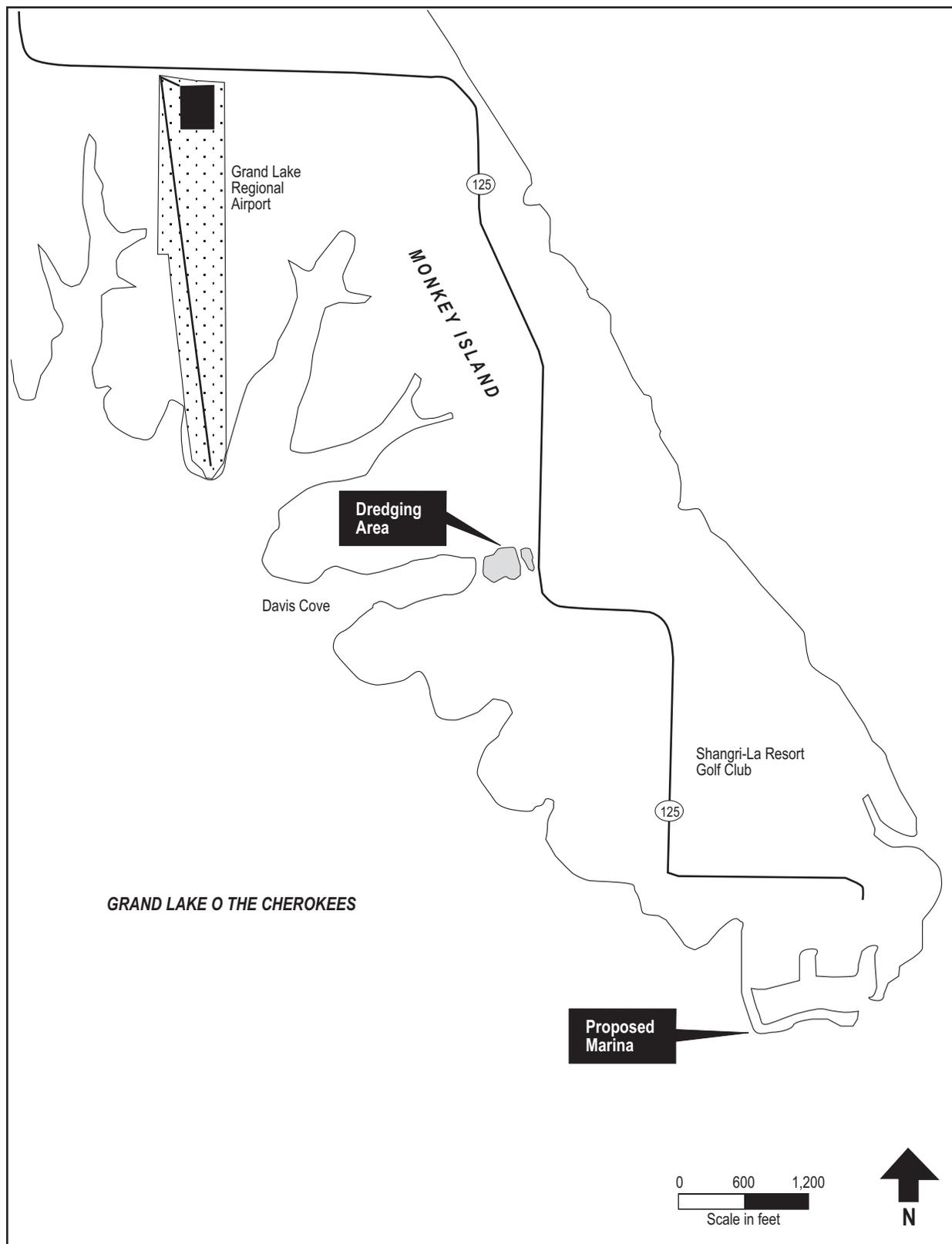


Figure 4. Location of the proposed activities.

GRDA's Board of Directors waives the dock-placement provisions of its Rules and Regulations Governing the Use of Shorelands and Waters of GRDA (Rules and Regulations) for most commercial-dock proposals and approves such proposals "as submitted" or "as submitted, subject to modification." The dock-placement provisions of the Rules and Regulations, states in pertinent part: (1) limit docks to a maximum total length, perpendicular to the shoreline, of 125 feet or one-third of the distance from the adjacent shoreline to the nearest opposite shoreline, whichever is less; and (2) require the boat slips of installed docks to be oriented perpendicular to the shoreline, with only one opening to the waterfront side of the dock. For these provisions, the term "shoreline" is defined as contour elevation 750 feet above mean sea level on Grand Lake (GRDA, 2006). The GRDA Assets Committee and Board of Directors considered this item at its regular meeting on October 11, 2006. The application proposed by Shangri-La Marina Group, LLC, was approved October 11, 2006, subject to the modification to reconfigure the docks so that they would not be inconsistent the one-third of the cove rule. A waiver of the 125-foot dock length and perpendicular rules, Article IV (7) of the Rules and Regulations was requested by Shangri-La Marina Group, LLC and approved by the GRDA Assets Committee and the GRDA Board of Directors.

3.2 Staff Identified Alternative

Commission staff identified an alternative that eliminates the development of Davis Cove and has the proposed marina accommodating the lost slips from Davis Cove. This alternative would require the proposed marina at the tip of Monkey Island to make available 57 boat slips and 50 PWC slips, originally intended for public use, and make them available to members of the Shangri-La residential community.

3.3 Alternatives Considered but Eliminated from Further Analysis

By letter dated January 17, 2007, Commission staff requested additional information from GRDA to include a description of any feasible alternatives considered to prevent potential impacts to the Davis Cove area. In a response filed with the Commission on February 1, 2007, the GRDA provided the descriptions of other alternatives that were considered in the process of refining the proposal currently before the Commission. These alternatives include:

- Build the residential slips adjacent to the 18th fairway of the Gold golf course located south of Shangri-La Marina Group, LLC's property.
- Acquire private lands with shoreline along Davis Cove so as not require the removal of the two dikes.
- Acquire waterfront property in nearby Point Marin located on the south eastern tip of the peninsula.
- Partner with Shangri-La Chateau's homeowners' association located south of Davis Cove which would extend an existing cove into a pond in the same way as the proposed action puts forward.

However, due to technical challenges such as shallow water and significant wind, the need to purchase numerous private lands, restrictive covenants, distance, parking and access issues, all these alternatives were considered unfavorable by the applicant.

3.4 No-Action Alternative

Under the no-action alternative, the Commission would not approve GRDA's non-project-use application. The licensee, in turn, could not grant Shangri-La Marina Group, LLC permission to construct the marina's docks or dredge the ponds, as proposed.

4.0 AGENCY CONSULTATION AND PUBLIC INVOLVEMENT

The application documents efforts to consult with resource agencies. By letters dated March 10, 2006, and June 13, 2006, consulted agencies were provided with information on the proposal and requested to provide comments related to their respective interests and expertise. In addition, public notices were issued in the Grove Sun and the Grand River Chronicle regarding Shangri-La Marina Group, LLC's request for a waiver of the 125-foot and perpendicular rules. GRDA hosted a public hearing on October 4, 2006, for which a notice was posted in the Grove Sun, Grand River Chronicle, and the Vinita Daily Journal. Approximately 100 people attended, and the application includes copies of the notice and meeting minutes. Written correspondence was received and is included in the application. The GRDA Assets Committee and Board of Directors also approved this item at its regular meeting on October 11, 2006. Both entities are public bodies and post public notices as required by law. A copy of these minutes is in the application.

The U.S. Army Corps of Engineers (Corps), Oklahoma Archaeological Survey (OAS), Oklahoma Historical Society (OHS), Oklahoma Department of Wildlife Conservation (ODWC), Oklahoma Water Resources Board (OWRB), Oklahoma Conservation Commission (OCC), and the United Keetoowah Band of Cherokees all responded to the licensee's consultation letters.

By letter dated April 18, 2006, the Corps recommends a silt fence be placed at elevation 756.00 feet above mean sea level and that it remain in place as a barrier for the duration of the construction of the project. The Corps also recommends that any damage observed to the silt fence be repaired within 24 hours. By letters dated April 18 and June 26, 2006, the Corps states the proposal would only involve minimal discharges incidental to excavation and that the proposal is not subject to regulation pursuant to section 404 of the Clean Water Act, and a Corps permit would not be required.

By letter dated March 27, 2006, the ODWC states that it reviewed the Natural Heritage Inventory database and found no records of elements of concern at the locations. It notes that it cannot say with certainty whether or not a given site harbors rare species.

By letters dated March 21 and June 26, 2006, OWRB recommends that Shangri-La Marina Group, LLC contact the local floodplain administrator for possible permit requirements for the proposal. By letter dated March 27, 2006, it states dredging and construction activity of this nature would likely require the involvement of the Corps and Oklahoma Department of Environmental Quality (ODEQ) for Clean Water Act (CWA) section 404 permit and section 401 water quality certification, respectively.

By letter dated May 16, 2006, OCC states that it reviewed the soil survey of Delaware County and that hydric soils are not indicated on the soil survey map, indicating that these areas most likely do not contain wetland ecosystems and the proposal should not significantly affect wetland resources in the area. OCC further states that, based on its wetlands determination criteria, there should be no significant impact on wetland resources in the area of the proposal.

By letters dated March 27 and June 26, 2006, OAS states that the proposed project has been cross-checked with state files containing 18,000 archeological sites and, based on the geographic and hydrologic setting of the project, no archaeological materials are likely to be encountered, and an archaeological field inspection is not considered necessary. If construction activities expose buried archaeological materials, OAS requests that it be contacted immediately.

By letters dated April 13 and July 13, 2006, OHS reports that there are no known historic properties that would be affected by the proposal.

By letter dated March 21, 2006, the United Keetooway Band of Cherokee Indians in Oklahoma states that it had no objection to the proposed action; however, if any remains, artifacts, or other items are inadvertently uncovered, it requests that it should be contacted immediately.

On November 8, 2006, the Commission issued a public notice of the application for the proposal, which solicited comments, motions to intervene, and protests. The deadline for filing responses to the notice was December 8, 2006. The following filed comments and/or motions:

<u>Entity</u>	<u>Filing Date</u>	<u>Comment and/or Motion</u>
U.S. Congressman Dan Boren	October 31, 2006	Comments in Support
Shangri-La Marina, LLC ⁶¹	November 6, 2006	Comments in Opposition

⁶¹ Shangri-La Marina, LLC, is not affiliated with the applicant, Peter Boylan, Shangri-La Marina Group, LLC.

<u>Entity</u>	<u>Filing Date</u>	<u>Comment and/or Motion</u>
U.S. Congressman John Sullivan	November 20, 2006	Comments in Support
Duck Creek Homeowners Association	December 6, 2006	Intervention in Opposition
U.S. Department of the Interior, Office of the Secretary	December 7, 2006	Comments
Oklahoma Department of Wildlife Conservation	December 7, 2006	Comments
Donald Dill	December 8, 2006	Protest
Paul and Laurie Ross	December 8, 2006	Intervention in Opposition
Shangri-La Marina Group, LLC	December 8, 2006	Intervention
Responses Filed After the Notice Deadline		
U.S. Senator Tom Coburn, MD	December 11, 2006	Comments in Support
Cheryl Lenhart	December 12, 2006	Protest
Oklahoma Historical Society	December 21, 2006	Comments
Shangri-La Marina Group, LLC	December 21, 2006	Answer to Motions, Interventions, and Comments
Grand River Dam Authority	December 22, 2006	Answer to Comments
OK State Congressman Douglas G. Cox, M.D.	December 27, 2006	Comments in Support
Paul and Laurie Ross	February 8, 2007	Protest

<u>Entity</u>	<u>Filing Date</u>	<u>Comment and/or Motion</u>
Shook, Huggins & Johnson, P.C filed on behalf of Paul and Laurie Ross	February 9, 2007	Comment
Duck Creek Homeowners	February 19, 2007	Comment
Paul and Laurie Ross	February 27, 2007	Amendment and Supplement to Intervention
U.S. Army Corps of Engineers	March 6, 2007	Comments

The Duck Creek Homeowners Association (Association) and Paul and Laurie Ross filed motions to intervene, opposing the proposal, and Donald Dill and Cheryl Lenhart filed protests. The Association states that the proposal completely disregards the effect on property values, safety, and the right of property owners to quiet enjoyment of their property. The Rosses state that demolition of the dike closest to Davis Cove would intrude upon land owned by them, would adversely affect water quality, and would violate provisions under GRDA's rules and regulations, which prohibit dredging more than 2,000 cubic yards and require a wetland delineation study. The Rosses and Dill express concern that the proposed marina would reduce the value of their homes, cause increased noise, pollution, and boat traffic, and affect navigational safety.

U.S. Congressman Dan Boren, U.S. Congressman John Sullivan, U.S. Senator Tom Coburn, and OK State Congressman Douglas Cox all filed comments in support of the proposal. Shangri-La Marina, LLC, filed comments opposing the proposal. Shangri-La Marina Group, LLC, and the licensee both filed answers to the motions, interventions, and comments listed above.

The U.S. Department of the Interior, Office of the Secretary (Interior), and the U.S. Fish and Wildlife Service (FWS) recommend testing the sediments for heavy metals and pesticides and that a risk assessment be carried out by a qualified professional prior to approving any dredging activity. The results of those tests would determine the potential risks associated with dredging and proper disposal of any dredged materials.

ODWC expresses concern with the possible re-suspension of heavy metals and pesticide contaminants from the proposed dredging activity and the cumulative effects of shoreline development at Grand Lake. ODWC recommends that the loss of shoreline access to recreational users and the environmental impacts associated with increased boating activities be mitigated in the form of aquatic habitat enhancements. ODWC

requests that a mitigation plan be developed for this commercial proposal, and that this mitigation plan be designed to offset the disturbances to fish and wildlife that would occur during the proposed dredging activities and address the loss of shoreline access to recreational users.

ODWC further recommends enhancement of fish and wildlife habitat through aquatic vegetation introductions. ODWC indicates that the establishment of aquatic vegetation would provide benefits to fish and wildlife in the form of habitat, food resources, and increased water quality. The location of this mitigation should be selected for suitability to establish aquatic plants and should be located as close to the proposed project as possible. ODWC recommends that plant species and planting methods currently being conducted at Grand Lake as part of the Fish and Waterfowl Habitat Management Plan (Article 411) be used for this mitigation. ODWC requests that the appropriate resource agencies be consulted during this mitigation process.

OHS states that it reviewed the application and examined the information contained in the Oklahoma Landmarks Inventory files and other materials on historic resources available in its office. OHS states there are no known historic properties affected within the referenced project's area of potential effects (APE). In addition to its review, OHS states contact with OAS is necessary to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register of Historic Places (National Register). Should OAS conclude that there are no prehistoric archeological sites or other types of "historic properties," as defined in 36 CFR Part 800.16(i), which are eligible for inclusion in the National Register within the project area and that such sites are unlikely to occur, OHS would concur with that opinion. OAS may conclude that an on-site investigation of all or part of the project impact area is necessary to determine the presence of archaeological resources. In the event that such an investigation reveals the presence of prehistoric archeological sites, OHS would defer to the judgment of OAS concerning whether or not any of the resources should be considered "historic properties" under the section 106 review process. If sites dating from the historic period are identified during the survey or are encountered during implementation of the project, additional assessments by the State Historic Preservation Office (SHPO) would be necessary.

By letter dated March 6, 2007, the Corps states that based on the application filed by Shangri-La Marina Group, LLC, they cannot determine whether the applicant is proposing temporary or permanent placement of dredged or fill material into the Davis Cove area, or on flowage easement lands to accomplish the dredging. The Corps further states that similar types of projects often involve the temporary sidecasting of excavated material or the placement of temporary access fills to accommodate equipment footing and reach. The Corps states that they must review and authorize any such activities prior to the work commencing. The Corps recommends the applicant prepare and submit a work plan for the proposed dredging of the two ponds within Davis Cove, which would describe the following factors:

- The staging and sequence of all work related to the proposed dredging;
- The quantity and type of any temporary and/or permanent placement of dredged or fill material below elevation 745.0;
- The quantity and type of material placed between elevations 750.0 and 757.0;
- The duration that temporary discharges of material will be in place for each phase of the project; and
- Sedimentation and turbidity control features to be implemented at the project site.

The Corps recommends the work plan give consideration to the site access, surrounding topography and steepness of slopes, type of equipment available, and in general, minimization of project impacts. The Corps also states that the only way the dredging component of the proposal can be accomplished without need for prior authorization under section 404 of the Clean Water Act is through the implementation of a “one-step” excavation and removal method, whereby excavated material is placed in a truck bed and hauled to an approved disposal site. The Corps states they will consider the property above elevation 757.0 an approved disposal site provided the site does not contain wetlands and the dredged spoil is properly controlled with staked-in-place straw bales, siltation fence, or other appropriate means of containment.

The Corps requests the applicant notify them at least ten days prior to the beginning of the dredging operation if the applicant is able to implement the one-step removal method described above. Otherwise, the applicant must submit a work plan, which is also described above, at a minimum of three months prior to the proposed dredging.

The following list categorizes the nature of issues raised by the filings:

- | | |
|--|--|
| • Effects on water quality | • Effects on local landowners and their rights |
| • Economic effects on an already existing marina within yards of the proposed marina | • Effects on fisheries |
| • Effects on the economy of the general area | • Effects on wildlife |
| • Effects on recreational access | • Effects on shoreline vegetation |
| • Effects on recreational usage and navigational safety | • Effects on cultural resources |
| | • Effects on noise quality |
| | • Effects on air quality |

Section 106 of the National Historic Preservation Act requires that the Commission evaluate the potential effects on properties listed or eligible for listing in the National Register. Such properties listed or eligible for listing in the National Register are called historic properties. Section 106 also requires that the Commission seek concurrence with the SHPO on any finding involving effects or no effects on historic properties, and allow the Advisory Council on Historic Preservation an opportunity to comment on any finding of effects on historic properties. If Native American (i.e., aboriginal) properties have been identified, section 106 also requires that the Commission consult with interested Indian tribes that might attach religious or cultural significance to such properties. In this case, the Commission must take into account whether any historic property could be affected by the proposed original licenses within the project's APE, and allow the Advisory Council an opportunity to comment prior to issuance of any original licenses for the projects. On April 2, 2007, the Commission sent the Oklahoma SHPO, OAS, and identified tribes a request for concurrence with our findings.

Section 7 of the Endangered Species Act requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or cause the destruction or adverse modification of the critical habitat of such species. On April 2, 2007, the Commission sent the FWS a request for written concurrence with our findings.

Commission staff issued its Draft EA for the proposed non-project use of project lands application on April 2, 2007. Commission staff requested comments be filed by May 1, 2007. Appendix A summarizes the comments that were filed pursuant to the section 106 consultation, section 7 consultation, and request for comments on the Draft EA. Appendix A also contains our response to the comments, and as appropriate, we modified the text of this EA in response to these comments.

5.0 ENVIRONMENTAL ANALYSIS

5.1 General Setting⁶²

The Pensacola Project is located about 78 miles northeast of Tulsa on the Grand (Neosho) River in Craig, Delaware, Mayes, and Ottawa Counties, Oklahoma. In addition to hydropower generation, project lands and waters are used for flood control, water supply, recreation, and environmental resource protection (FERC, 1992).

The project dam impounds Grand Lake, which extends about 66 miles upstream from the dam and has about 1,300 miles of shoreline. Grand Lake has a surface area of

⁶² Information in this section was taken from FERC, 2006, unless otherwise noted.

46,500 acres and a storage capacity of 1,680,000 acre-feet at a normal maximum water surface elevation of 745 feet Pensacola Datum (PD).⁶³

In operating the project reservoir for hydropower generation, GRDA controls water levels up to elevations of 745 feet PD. Between reservoir elevations of 745 feet PD and 755 feet PD, the Corps dictates flow releases from the project dam for flood control (FERC, 1992). Also, the Corps manages flowage-easement lands around Grand Lake for flood control (letter from R.L. Suthard, Jr., Colonel, Corps, Tulsa District, Tulsa, OK, to J. Harwood, Arrowhead Yacht Club, Ketchum, OK, dated March 8, 2002). Consequently, shoreline lands around Grand Lake are used for power-pool flowage below the 745-foot contour elevation and flood-pool flowage over the next 10 vertical feet.

Grand Lake's water levels are managed according to a rule curve established by Article 401 of the project's license. License Article 401, as amended,⁶⁴ requires lake levels to be maintained between elevations of 741 and 744 feet PD, in accordance with seasonal target levels (FERC, 1996).

Most land surrounding Grand Lake is privately owned, and many areas along its shoreline have been developed with commercial resorts, private homes and condominiums, municipal and state parks, marinas, and private docks. The licensee owns title to the shoreline up to the 750-foot PD contour elevation, and it manages the lake's shoreline with a permitting system and operates a lake patrol to monitor and inspect permitted shoreline uses and to enforce its boating regulations (FERC, 1992).

Monkey Island Peninsula is located about 12 miles west of the Town of Grove, Oklahoma. The peninsula is a 6-mile-long arm surrounded by Grand Lake that runs generally north-south and is located approximately in the middle of the reservoir on the north bank. State Highway 125 runs to the end of the peninsula, providing easy access to the residential and recreational developments in the area.

5.2 Proposed Action

This section of the EA analyzes the environmental effects of the proposed action. The direct and indirect effects of the proposal, and associated boating activities, are analyzed first under each resource section. The geographic and temporal scopes of these analyses vary with each resource and issue under consideration.

⁶³Pensacola Datum is 1.07 feet higher than National Geodetic Vertical Datum, which is the national standard for measuring elevations above sea level.

⁶⁴ See 77 FERC ¶ 61,251 (1996).

5.2.1 Terrestrial Resources

5.2.1.1 Affected Environment

Shoreline Stability and Soil Erosion

The shores of Grand Lake primarily comprise stony, silty-loam soils on 5- to 20-percent slopes. This soil composition also occupies timbered upland ridges in cherty limestone areas. The soil surface layer is dark grayish brown in the upper 2 inches and pale brown in the lower horizon. The subsoil, which is brown, stony, silty, and clay loam, is about 60 percent chert by volume (GRDA, 2002).

Substantial shoreline erosion has occurred in certain areas of the lake as a result of fluctuating water levels and natural weather conditions. Wake-generated waves of powerboats and personal watercraft have also contributed to this erosion (GRDA, 2002).

The shoreline in the vicinity of the proposed marina is described as a gravel shoreline with a narrow and sparse riparian zone and open pasture above the shoreline (Eagle Environmental Consulting, 2006). The project area around the proposed marina is impacted by erosion associated with wave action from the lake, and the shoreline is sparsely vegetated (Eagle Environmental Consulting, 2006).

Riparian Habitat and Wildlife

Low areas and stream corridors in the project area are typically dominated by eastern cottonwood, willow, green ash, elm, and maple. Generally, all woody vegetation at or below an elevation of 746 feet PD has developed since 1940. Prior to the construction of the reservoir in 1940, all woody vegetation around Grand Lake's perimeter and below that elevation was removed. A resort and golf course are located immediately above the shoreline in the vicinity of the proposed dredging.

The immediate project area supports tall grass prairie vegetation primarily found in the western region. Big bluestem, little bluestem, Indian grass, and switchgrass are the dominant species. The eastern region and valleys in the western region support more woody vegetation. The proposed project area for the marina is characterized by a rocky shoreline with a narrow, intermittent, and sparse riparian zone. Low areas and stream corridors in the immediate project area are composed of a narrow corridor of red oak, white oak, and hickory established in the flood zone (Eagle Environmental Consulting, 2006).

The immediate project area for the cove dredging is a previously disturbed area devoid of woody vegetation around the perimeter except for a few relatively mature sycamore trees. The ponds proposed for dredging were created by construction of two golf cart dikes during the 1980s. The dike on the side closest to the lake is more sparsely vegetated with sycamore, red bud, black locust, American elm, eastern red cedar, buttonbush, silver maple, paper mulberry, bitternut hickory, grapevine, and lespedeza.

Soil surveys and wetland delineations confirm that hydric soils are not present in the proposed project area, indicating that these areas most likely do not contain wetland ecosystems. Although no wetlands or jurisdictional waterways were found during the marina or dredging project surveys, Grand Lake and the ponds proposed for dredging are considered waters of the United States.

Wildlife in upland deciduous forests around Grand Lake includes the white-tailed deer, striped skunk, raccoon, fox and gray squirrel, opossum, eastern cottontail, turkey, and red fox. A variety of herpetofauna including timber rattle snakes, copperhead, cottonmouth, water snakes, amphibians, salamanders, lizards, and turtles are also expected to occur in the project area. Raptors, such as Bald Eagle, Barred Owl, Red-tailed Hawk, and Red-shouldered Hawk, may also use the area.

Migrating and wintering waterfowl visit Grand Lake and its adjacent wetlands. From September through January, Gadwall, Green-winged Teal, and Snow Geese are frequent winter residents. During spring migration, Blue-winged Teal, Northern Shoveler, Lesser Scaup, and Ruddy Duck are common on Grand Lake. Canada Geese, Wood Ducks, and Mallards are year-round residents, while American White Pelicans frequent the lake from February to November.

In a study included in the 1989 *Proceedings of the Oklahoma Academy of Science*, Stancill et al. (1989) found that the Mallard Duck was the only upland-nesting waterfowl species that appeared to reproduce on Grand Lake and its associated wetlands. Mallard broods were observed exclusively in developed areas of the lake. The study estimated that overall mallard production on the reservoir was about 491 annually.

The Wood Duck was the only cavity-nesting waterfowl species observed, and most Wood Duck production occurred on associated wetlands, especially along tributary creeks and rivers. The study suggested that brooding cover is the limiting factor for Wood Duck production on Grand Lake and that enhancement of brooding cover would be more beneficial to Wood Duck production than installation of artificial nesting structures. Other waterfowl species observed included Northern Shovelers and Blue-winged Teal from March to April, but no nest or broods were noted.

Threatened and Endangered Species

ODWC and FWS identified the federally listed endangered gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), Ozark big-eared bat (*Corynorhinus townsendii*), and American burying beetle (ABB) (*Nicrophorus americanus*); threatened Bald Eagle (*Haliaeetus leucocephalus*), Piping Plover (*Charadrius melodus*), and Ozark cave fish (*Amblyopsis rosae*); and candidate species Arkansas darter (*Etheostoma cragini*) and Neosho mucket (*Lampsilis rafinesqueana*) as species that may occur in Delaware County (ONHI, 2003).

By letter dated March 27, 2006, ODWC states review of the Natural Heritage Inventory database revealed no records of endangered species or other elements of

biological significances at the proposed marina or dredging locations. ODWC notes, however, that it cannot say with certainty whether or not a given site harbors rare species.

During the summer, gray bats roost in caves in northeastern Oklahoma, including several around Grand Lake (FWS, 1982). No known bat caves or suitable habitat are located within proximity to the immediate project area.

Bald Eagles winter on Grand Lake, with numbers peaking in January or February. No Bald Eagle nests are known to occur along the shoreline of Grand Lake. Eagles may nest along the river downstream of the Pensacola dam, where food resources are abundant and large trees are available for nesting, perching, and roosting (GRDA, 2003a).

Piping Plovers migrate across the eastern region of Oklahoma during the spring and fall. They use sandy shorelines on lakes and sandbars along the major river systems for foraging and resting areas. No individuals or potential nesting habitat for the plover were identified within the project area.

Habitat for the Ozark cavefish, Neosho mucket, and Arkansas darter is not present at or near the project area. In particular, Ozark cavefish live exclusively in caves of the Springfield Plateau physiographic region in the Ozark highlands of southwestern Missouri, northwestern Arkansas, and northeastern Oklahoma (FWS, 1984). The cavefish is known to inhabit 15 caves in the area. Currently, the only known population of the Neosho mucket occurs in the Illinois River above Lake Tenkiller.

Although ODWC did not state any concerns regarding the occurrence of the ABB, FWS stated in its letter of concurrence that the ABB is known to occur in adjacent counties and could potentially occur within the project area. The ABB has been found in various types of habitat including oak-pine woodlands, open fields, oak-hickory forest, open grasslands, and edge habitat. Research indicates that the ABB are feeding habitat generalists (FWS, 1991). Although the decline of the prey base for this species is thought to be the most important factor for the decline of the species, other factors are undoubtedly involved. Among these are habitat loss through development or intensive agricultural practices, a particular susceptibility to some chemical contamination, impacts due to artificial lights (which are known to attract and disorient many species of nocturnal insects), and other environmental or anthropogenic causes.

5.2.1.2 Environmental Effects

Shoreline Stability and Soil Erosion

Construction of the proposed docks, and associated increases in the use of power boats and PWC, would have minor impacts on the shoreline in the vicinity of the marina. The lakebed is generally low angle in the vicinity of the proposed marina. When the lake is low, additional boat activity may cause only minor and short term contributions to

shoreline erosion because the low angle of the exposed lakebed would attenuate wave energy. However, when the lake is near full pool, the increased recreational use of the area, including boats moving in and out of the marina, could contribute to additional shoreline erosion.

Shoreline soils at the proposed marina location would not be removed or altered except for the installation of the marina boat dock stiff arms and access ramps. Only the floating structures are proposed within the lake. All soil-disturbing and construction activities associated with the proposed marina project would be performed in accordance with standard best management practices. A stormwater pollution prevention plan would be developed and implemented prior to construction. Erosion and sedimentation control measures would also be employed during construction. No construction-related runoff is expected to enter the water. The application states that soils removed at the proposed dredging project would be removed from existing golf cart paths and dikes and placed in an unspecified upland location. Discharge of fill material into the lake is not anticipated by the applicant.

Section 404 of the CWA requires prior authorization from the Corps for the discharge of dredged or fill material into waters of the United States. Waters of the United States include lakes, natural ponds, rivers, creeks, and wetlands. The Corps reviewed and responded to GRDA's marina expansion and dredging project proposal on June 26, 2006, and determined that the project would only involve minimal discharges incidental to excavation and therefore, the proposed project is not subject to regulation pursuant to section 404 of the CWA, and a Department of the Army permit would not be required.⁶⁵ The Corps, however, filed an additional letter March 6, 2007, stating that based on the application filed by Shangri-La Marina Group, LLC, they cannot determine whether the applicant is proposing temporary or permanent placement of dredged or fill material into the Davis Cove area, or on flowage easement lands to accomplish the dredging. The Corps further states that similar types of projects often involve the temporary sidestepping of excavated material or the placement of temporary access fills to accommodate equipment footing and reach. The Corps states that they must review and authorize any such activities prior to the work commencing.

The Corps also states that the only way the dredging component of the proposal can be accomplished without need for prior authorization under section 404 of the Clean Water Act is through the implementation of a "one-step" excavation and removal method, whereby excavated material is placed in a truck bed and hauled to an approved

⁶⁵ Until recently, the proposed excavation would have required authorization under section 404 of the CWA. However, in accordance with the District Court decision in the District of Columbia in *American Mining Congress vs. United States Army Corps of Engineers* (No. 93-1754 SSH), the Corps is currently not requiring authorization under section 404 for excavation activities that do not involve more than incidental discharges.

disposal site. The Corps states they will consider the property above elevation 757.0 an approved disposal site provided the site does not contain wetlands and the dredged spoil is properly controlled with staked-in-place straw bales, siltation fence, or other appropriate means of containment. The Corps requests the applicant notify them at least ten days prior to the beginning of the dredging operation if the applicant is able to implement the one-step removal method described above. Otherwise, the applicant must submit a work plan, which is also described above, at a minimum of three months prior to the proposed dredging. The work plan would describe the following factors:

- The staging and sequence of all work related to the proposed dredging;
- The quantity and type of any temporary and/or permanent placement of dredged or fill material below elevation 745.0;
- The quantity and type of material placed between elevations 750.0 and 757.0;
- The duration that temporary discharges of material will be in place for each phase of the project; and
- Sedimentation and turbidity control features to be implemented at the project site.

The Corps recommends the work plan give consideration to the site access, surrounding topography and steepness of slopes, type of equipment available, and in general, minimization of project impacts. If the applicant implements a one-step excavation and removal method, or prepares a work plan in accordance with recommendations from the Corp, impacts associated with sedimentation and turbidity from the dredging process should be mitigated for adequately.

By letter dated May 1, 2007, in response to the Commission Staff request for comments on the Draft EA, Shangri-La Marina Group, LLC states it plans to utilize the “one-step” excavation and removal method and would be disposing of the material above elevation 757.0, as instructed by the Corps. Further, Shangri-La Marina Group, LLC would follow the notification requirement in the Corp’s February 21 letter which would allow the Corps to monitor the construction activity. Additionally, Shangri-La Marina Group, LLC would employ siltation and sedimentation barriers consistent with the Corps’ directives for this methodology. Shangri-La Marina Group, LLC would also use standard best management practices for soil and erosion control, and follow an appropriate stormwater pollution prevention plan. Finally, the Davis Cove docks would be anchored to the shore with stiff arms, in lieu of underwater anchors.

OWRB has a Memorandum of Agreement with GRDA regarding floodplain development (personal communication from K. Morris, Floodplain Manager, Oklahoma WRB, to S. Votaw, Eagle Environmental Consulting, Inc., dated June 23, 2006). All dredging projects that dredge 2,000 cubic feet or more from the lake require a floodplain

development permit from OWRB. Environmental impacts from the dredging process are often due to the excavation of sediments in the bed, the loss of sediments during transport to the surface, an increase in turbidity, and disruptions in existing benthic habitats. A permit would be required for the dredging project. Boat slips and docks are exempt from these requirements.

Riparian Habitat and Wildlife

Wildlife and waterfowl are not likely to extensively use the proposed site for the marina because of the area's already developed condition and its ongoing use by nearby marina patrons. Construction of the proposed marina, and resulting increases in boat traffic and human disturbance, would discourage wildlife use along this section of shoreline. Because no new ground-disturbing or vegetation-clearing activities are required to construct the docks, effects on existing wildlife communities are expected to be minor and temporary.

Minor disturbance to wildlife and removal of vegetation at the dredging project location would occur in the westernmost golf cart dike area. Although installation of module and anchor settings would be designed to avoid woody vegetation, some trees and shrubs would be removed during construction and after the docks and walkways are installed. This would likely impact existing riparian habitat, and the associated plant and animal biomass along the shoreline of Davis Cove. Riparian areas supply food, cover, and water for a large diversity of animals, and serve as migration routes and connectors between habitats for a variety of wildlife (Manci, 1989). In addition, riparian habitat is important in mitigating or controlling non-point source pollution. The installation of the docks would reduce the amount of shoreline within the back end of the cove, as well as the associated riparian habitat. GRDA proposes to restore the disturbed areas to mitigate the potential impacts on and shoreline vegetation at this location. Replacement of affected vegetation would be accomplished through installation of native herbaceous species that provide the most benefit for wildlife, habitat, and aesthetics. Properly selecting and installing the plant material, and maintaining it until established, would ensure the cost-effectiveness of this measure. It is recommended that GRDA file, for Commission approval, their plan to mitigate for the loss of shoreline vegetation and riparian habitat within Davis Cove, prior to construction.

By letter dated May 16, 2006, OCC stated that, based on review of the Delaware County soil survey, hydric soils are not present in the proposed project area. According to National Wetland Inventory maps and wetland delineations, no wetlands occur in the immediate vicinity of proposed marina and dredging project areas. For these reasons, we conclude the proposed docks and dredging projects would have no effect on wetland functions and values.

Threatened and Endangered Species

Neither ODWC nor FWS stated any concerns regarding the occurrence of threatened and endangered species, with the exception of the ABB. Adverse effects on

feeding patterns for bats that might frequent the project area are not expected. General bat foraging on the lake is possible; however, the presence of the listed bat species at the proposed marina and dredging project location is not anticipated. The proposed marina and dredging projects and associated construction and boating activity would not be likely to adversely affect any caves or listed bats.

The proposed action would not be likely to adversely affect nesting Bald Eagles or Piping Plovers because no potential nesting habitat was identified for either species. The nearest known nests are located beyond a point where dock-related noise would cause disturbance. Also, wintering Bald Eagles and migrating plovers would not be affected because construction and operation of the docks, and increased boating activity associated with operation of the docks, would occur primarily during the summer. Likewise, the proposed projects would not be likely to adversely affect any listed fish or mussel species.

In a letter filed on June 19, 2007, FWS concurred with our overall findings that the construction and operation of the marina and dredging projects are not likely to adversely affect the above-listed species, with the exception of the ABB.

FWS stated that the ABB is known to occur in adjacent counties and, therefore, could potentially occur within the project area. FWS is also concerned that the total amount of soil disturbance (including the upland disposal area) related to the proposed action would exceed 1.2 acres, which would initiate the need for a survey to more precisely determine presence or absence of this species within the immediate project area.

The licensee's June 11, 2007, filing includes a scaled drawing and map of the area around Davis Cove that would be dredged for the installation of the docks. This drawing indicates that approximately 2.3 acres of land will be impacted by the proposed excavation. In addition, after taking into consideration the disposal site for 62,000 cubic yards of material, it is probable that the amount of disturbed land at the disposal site would also exceed 1.2 acres.⁶⁶ If the ABB is determined to be present within the project area, consultation with FWS' Division of Ecological Services must occur prior to initiating any ground disturbing activities. Most adverse effects to the ABB would be avoided by removing the beetle from the project area using methods found in FWS' ABB Survey Protocol dated May 2005. Implementing this measure ensures that further section 7 consultation would not be required unless project plans change, or if additional information on the distribution of listed or proposed species becomes available.

⁶⁶ Calculations for just the deposit of the 62,000 cubic yards of material in an upland area would amount to spoil piles being constructed to a height of approximately 32 feet if distributed within the confines of 1.2 acres and this calculation excludes sloped transitions. This does not include the excavation of dry material within the project boundary.

5.2.2 Aquatic Resources

5.2.2.1 Affected Environment

Water Quality and Lake-Bed Sedimentation

Grand Lake is the third largest reservoir in Oklahoma, in terms of both surface area and storage capacity. The lake covers a surface area of 46,500 acres and a storage capacity of 1,680,000 acre-feet at a normal maximum water surface elevation of 744 feet NGVD (National Geodetic Vertical Datum).⁶⁷ At the normal pool elevation the mean depth is about 36 feet while the maximum depth is 164 feet. Although Grand Lake is located entirely in Oklahoma, nearly 90 percent of the 10,298 square mile drainage area is located in Kansas and Missouri (OOSE, 2005). The major tributaries of the reservoir are the Neosho, Spring, and Elk Rivers.

The GRDA operates the project according to the operating rule curve of the reservoir level management plan in the 1996 amendment to the license.⁶⁸ License Article 401, as amended, requires lake levels to be maintained between elevations of 741 and 744 feet PD, in accordance with seasonal target levels. Water elevations from 745 to 755 PD are controlled by the Corps of Engineers for flood control operations. The project area is described as lying within the flood pool of Grand Lake—apparently meaning above elevation 745 PD (Eagle Environmental Consulting 2006). In addition, the description of the Davis Cove dikes does not note any culverts nor does it include any description of existing drainage into the lake. However, surface water runoff may flow from the Davis Cove ponds into Grand Lake following precipitation events.

OWRB monitors water quality on Grand Lake as part of the OWRB's Beneficial Use Monitoring Program. Grand Lake monitoring includes 12 sites that are sampled to represent three zones (riverine, transitional, and lacustrine), as well as the major embayment arms of the lake. Grand Lake has seasonal dissolved oxygen (DO) fluctuations that are typical of large reservoirs in the region – during the winter, the colder lake water holds more DO in comparison to the warmer late spring, summer, and early fall months. In the warmer summer months, the deeper areas of the lake become thermally stratified, which isolates this deep water and limits the transfer of oxygen from the atmosphere. As a result of this stratification, the DO concentrations in the deep portions of Grand Lake fall below 5 milligrams per liter – the water quality DO standard for Fish and Wildlife Propagation, one of the beneficial uses of the monitoring program.

⁶⁷ See 59 FERC ¶62,073 Order Issuing License (Issued April 24, 1992).

⁶⁸ See 77 FERC ¶61,251, Order Amending License (Issued December 3, 1996).

In contrast, only a few surface water DO samples in August indicated that Grand Lake surface waters fall below 5 milligrams per liter (OWRB, 2001).

The trophic status of the lake is assessed using Carlson's Trophic State Index (TSI) and chlorophyll-*a* as the indicator parameter of primary interest. Calculated TSI values have increased in recent years and generally indicate that most of Grand Lake has become more eutrophic over time (FERC, 2003). The state of Oklahoma first documented serious water quality threats in the 1980s when algal blooms and other signs of nutrient enrichment began to occur in embayments and the upstream portions of the lake (OOSE, 2005). Nutrient enrichment (e.g., ortho-phosphate and nitrate) is most prevalent in the upper section of the lake and decreases toward the dam. High nitrogen concentrations in the lake are primarily attributable to the migration of chicken litter by-products that are spread on lands in the watershed and reach the lake through subterranean aquifers and the lake's tributaries. Other sources of nutrients that contribute to the seasonal low DO concentrations are surface runoff and leachate from residential lawns and septic systems along the shorelines. Secchi depths, a measure of water clarity, are typically in the range of 0.1 to 3.8 feet with greater depths near the dam and less water clarity upstream in areas near Twin Bridges, which is consistent with the pattern of greater eutrophication in the upstream waters of Grand Lake (OOSE, 2005).

Grand Lake and many of its tributaries are listed as impaired on the 303(d) lists of Oklahoma, Missouri, and Kansas due to causes such as nutrient enrichment, sedimentation, low DO, and heavy metals (i.e., lead, zinc, and cadmium). These heavy metals are likely to be the result of runoff and leachate from mine tailings associated with the Tar Creek Superfund site.⁶⁹ ODEQ has issued a warning against consumption of whole fish caught in the Spring and Neosho Rivers at the upper end of the lake due to its preliminary findings of high lead levels in fish tissue (OOSE, 2005). Metal concentrations in waters and sediments are higher in upstream portions of Grand Lake, particularly upstream of Twin Bridges, than in the main body of the lake. The dredging area encompassed by the two ponds was previously part of Davis Cove. Thus, the sediments of these ponds include the original lake sediments as well as sediments deposited by surface runoff since the dikes were constructed and the ponds were isolated from the lake. There is no information on the composition of the sediments found in the ponds, nor information on the presence of any contaminants. There is also no information on the composition of the material used to construct the two dikes.

⁶⁹The first U.S. Environmental Protection Agency Record of Decision (ROD) for the Tar Creek Superfund Site was signed on June 6, 1984, under the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. The ROD was subsequently amended by the Superfund Amendments and Reauthorization Act of 1986.

Water turbidity in the lake's littoral zone increases in response to runoff from moderate to large storm events (FERC, 2003). Turbidity is chronically elevated during peak boating periods as a result of wake-generated waves that erode and/or resuspend sediments in near shore areas. Boating also introduces petroleum products that degrade the lake's water quality as a result of refueling, accidental releases and engine discharges. Overboard discharges of marine-toilet effluent and other pollutants are also thought to occur in violation of the GRDA's Rules and Regulations (OOSE, 2005).

GRDA conducts some water-quality monitoring on Grand Lake to determine if boating or other activities are impairing the lake's beneficial uses and values (FERC, 2001).⁷⁰ GRDA also has prescribed lake-wide sanitation rules to protect public health and water quality. Among other requirements, these rules prohibit (1) the discharge, deposit, or dumping of bottles, cans, garbage, rubbish, refuse, debris, wreckage, bilge water containing oil and grease, and any other type of materials into the lake and on the lake's adjacent shorelands; (2) the disposal of sewage in the waters and on the shorelands of the lake; and (3) the operation of a vessel equipped with a marine toilet that is not a total retention system in accordance with federal regulations regarding marine toilets. The licensee's lake patrol is responsible for monitoring user compliance with these requirements; any violations are subject to GRDA enforcement (GRDA, 2006).

Fisheries and Littoral Habitat

In 1999, ODWC ranked Grand Lake fourth out of 21 lakes in Oklahoma for its quality bass fishing (GRDA, 2003b). Grand Lake's most important game fish species include largemouth bass, spotted bass, crappie, white bass, channel and blue catfish, and paddlefish. The lake and tailwater downstream of the project dam produce consistently good recreational fishing for paddlefish. The downstream tailwater area produced the 1992 state record paddlefish, weighing 112 pounds (ODWC, 2002). Channel catfish, which were last sampled in 1998, were moderately abundant. Crappie and blue catfish, sampled in 1998 and 1999, had below average numbers. Other species of fish found in Grand Lake, determined either from gill netting or seining efforts, include bluegill, longear sunfish, freshwater drum, smallmouth buffalo, river carpsucker, golden redhorse, flathead catfish, gizzard shad, brook silverside, and logperch (FERC, 2003).

During the past decade, the Commission staff has examined annual largemouth and spotted bass sampling data collected by ODWC for trends (ODWC, 2002). Data were available for 1990, 1994, 1996, 1998, and 2001. Calculations included in the data include catch per unit effort, size determination, number of quality sized fish, number of preferred sized fish, and mean relative weight (a measure of overall health). The data described a healthy bass fishery and did not show any strong trends in bass population

⁷⁰ Environmental Assessment for non-project use of project lands and waters at the Pensacola Project issued October 2001 for Order Approving Non-Project Use of Project Lands and Waters, 97 FERC ¶ 62,083 (Issued October 26, 2001).

size, individual length and weight, or fish condition for the period that was examined. ODWC staff noted that there were no immediate concerns for largemouth or spotted bass populations. There were also no problems determined in recruitment of young fish, indicating that successful reproduction and survival occurred in Grand Lake through the period examined.

The area near the proposed marina location is already developed with dock and marina facilities. The Davis Cove dredging location currently has a number of floating docks throughout the cove. The ponds are not connected to the lake and thus, do not provide habitat for Grand Lake fish populations.

Wetland Functions and Values

No wetlands were identified during June 2006 wetland surveys within the project area. Therefore, we conclude the proposed docks would have no effect on wetland functions and values.

5.2.2.2 Environmental Effects

Water Quality and Lake-Bed Sedimentation

Construction of the marina adjacent to the existing marina would have some short-term localized effects on water quality. Placement of the stiff arms and the installation of the docks would cause sediment disturbance and a short-term increase in turbidity and suspended solids in the immediate area. This could cause short-term decreases in DO in the vicinity of the marina.

Excavation of the two ponds, removal of the dikes, and construction of the proposed docks would have some localized short-term, moderate effects on water quality within Davis Cove. According to Shangri-La Marina Group, LLC, construction of the proposed docks in Davis Cove would require excavating an estimated 62,000 cubic yards of material from the two ponds and removing the two dikes (Eagle Environmental Consulting, 2006). Shangri-La Marina Group, LLC's reply comments provide more details, stating that, "Shangri-La will first dredge the two ponds and then remove the dikes to open the waterway to the existing Davis Cove and Grand Lake. Once the cove is enlarged, Shangri-La Marina Group, LLC will install four modules of boat slips..." Shangri-La Marina Group, LLC variously refers to this activity as dredging or excavating, and proposes to dispose of this material in unspecified shore/upland location(s) with little to no discharge to Grand Lake.

Excavation of the ponds and removal of the interior dike while the outer dike remains in place would have little impact on the lake since it is unlikely that sediment laden water would be discharged to the lake. Precipitation events, however, could result in some runoff of sediment laden water from the ponds into the lake. Removal of the outboard dike and installation of the docks and associated anchoring points would cause

sediment disturbance and a short-term increase in turbidity and suspended solids in the immediate area.

In comments filed on December 7, 2006, by both Interior and ODWC, the agencies raised a concern that disturbing Grand Lake sediments in the ponds or near the dikes may cause some heavy metals to be released or exposed. In addition, the presence of heavy metals in excavated material may restrict disposal options. By letters dated November 29, 2006, and December 6, 2006, respectively, the Duck Creek Homeowners Association and Cheryl Lenhart also cite concerns about possible heavy metal inflows from the ponds and the need for sediment testing. It is possible that the sediments that would be disturbed by the excavation and/or construction could contain significant amounts of metals even though the primary sources associated with the Tar Creek Superfund site are located upstream of Grand Lake in the Spring and Neosho River watersheds. Sediment testing and monitoring would reveal any presence of contaminants and the need to implement a remediation plan within the ponds. Therefore, sediments should be sampled for the presence of heavy metals prior to dredging to verify that metals are not present. Sediments should also be tested after the cove is dredged in order to determine if any contaminants exist within the lake bed within Davis Cove. The licensee should be required to develop a heavy metal monitoring plan in consultation with the ODWC and FWS, and file this plan with the Commission for approval prior to construction.

Potential long-term effects on Grand Lake's water quality could arise from increased boating-related sources attributable to use of the marina and Davis Cove docks. Increased traffic from boats and PWCs would result in petroleum product leakage and overboard discharges of waste. Given the number of boats likely to use the facilities, there would be a greater potential for accidental fuel spills and oil discharges and leaks from normal boating operations. Also, some of the additional boaters using the facilities would likely violate GRDA's sanitation rules, especially the overboard discharging of bilge water and the dumping of waste materials from boat-cleaning activities. These additional sources of pollution would incrementally contribute to the cumulative water-quality impacts that have occurred, and continue to occur, on the lake and in the cove. GRDA's ongoing water-quality and lake-patrol monitoring efforts comprehensively address this cumulative-impact concern.

Fisheries and Littoral Habitat

Following construction of the docks in the marina and Davis Cove, the new floating structures would provide additional overhead cover for fish. During excavation of the ponds, removal of the dikes, and construction of the proposed docks, fish likely would be temporarily displaced from Davis Cove and the marina location. This displacement could result in a minor, short-term effect on the area's fish populations.

5.2.3 Recreation and Other Land and Water Uses

5.2.3.1 Affected Environment

Grand Lake is the most popular boating destination in Oklahoma. A survey conducted in conjunction with the preparation of the project's recreation plan identified boating as the primary recreational activity on Grand Lake (GRDA, 1997a, b; GRDA, 1998; FERC, 1998a). Boaters in all types of boats (fishing and touring, keeled sailboats, and large yachts) use the lake and cove. Boating traffic increases dramatically during the summer recreational season, particularly on weekends and holidays (GRDA, 2004). GRDA estimates that on holiday weekends in the summer, boating use generally increases 300-600 percent (GRDA, 2007).

In 1992, 120 commercial boat docks and more than 2,600 private boat docks were permitted on Grand Lake (FERC, 1992). By 1997, the number of private docks had risen to 3,500 and total docks of 7,500. Current estimates number the private docks on the lake to be 3,700 (GRDA, 2007). Grand Lake currently has more than 18,000 waterfront property owners, more than 10,000 private and commercial boat slips, and more than 150 commercial marinas (GRDA, 2005). Nearly 60 percent of gas tax revenue generated from sales to boaters on Oklahoma Lakes is collected from Grand Lake.

Public access is provided by commercial marinas and public launches located within 5 state parks and at roughly 15 municipal parks. Collectively, these parks support approximately 22 public boat ramps. Commercial outfits support approximately 355 commercial boat docks (3,892 slips) and also allow public use of their boat ramps, generally assessing a fee for parking. Commercial operations and some public parks also support boaters on the lake by offering services such as boat repairs, fuel sales, sewage pump stations and food sales. A majority of the access sites are located on the lower portion of lake close to the dam (GRDA, 2007).

Because of the growing popularity of Grand Lake for recreational boating, boat-traffic congestion and navigational safety have become increasingly important issues. Traffic and safety concerns have arisen on the lake primarily as a result of a greater number of larger boats (GRDA, 2002). GRDA's Rules and Regulations include a number of boating-related requirements to address these concerns. These boating provisions include night-time speed limits, no-wake zones, and activity restrictions and prohibitions for skiing and vessel operating distances (GRDA, 2006).

The wind pattern in the months of January through March generally includes winds out of the north at approximately 10 miles per hour. For the rest of the year the winds generally come out of the southwest. From April through June winds tend to blow approximately 8 miles per hour, July through September the winds calm to approximately 5 miles per hour, and from October through December the winds pick up and tend to blow at 7 miles per hour (GRDA, June 2007).

GRDA conducted six recreational boat counts in Davis Cove on Thursday, May 31, and Saturday, June 2, 2007. Boats were present in Davis Cove on three of the six counts. On May 31, GRDA counted three pleasure crafts and two PWCs at 3:00 PM, Central Daylight Time (CDT) time in Davis Cove. On both May 31 and June 2, at 7:00 PM, CDT, GRDA counted two pleasure boats with one additional PWC using the cove on May 31.

Public Access to Project Lands and Waters

The project license includes Commission Form L-3 entitled “Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States” (FERC, 1992). Article 18 of Form L-3 provides that the licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the licensee for navigation and for outdoor recreational purposes. This article also provides that the licensee may reserve from public access such portions of the project’s waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

As previously stated, the purpose of the proposed action is to complement a hotel and conference center, wellness center/spa, condominiums, and recreation center expected to be constructed on private land outside and adjacent to the project boundary. The 57 boat slips and 50 personal watercraft slips are intended for use by residents of the proposed Shangri-La condominium development located on private land around Davis Cove. These residential docks would provide watercraft access to Grand Lake for both the residents of the condominiums and patrons of the adjacent golf course. The applicant states that the slips for the residents within the Shangri-La condominium development must be located adjacent to the condominiums themselves to ensure adequate revenues from the condominium sales to support the overall development.

At the tip of the peninsula in the area where the new marina is proposed, there is an existing commercial marina called the Shangri-La Marina and is operated by Shangri-La Marina, LLC (not affiliated with the Shangri-La Marina Group, LLC, associated with this proposal). According to the application for this proceeding, there are approximately 163 available slips at this existing marina, which operates between 92 and 94 percent capacity. The existing marina, in addition to slip rentals, provides boat sales, gasoline fueling services, and a ship store. The proposed marina site is surrounded by mainly recreational boating use and some private residences. The private back-lying property abutting the project in this area prevents public access by land.

Current Land Use

GRDA’s Draft Shoreline Management Plan classifies the land within the project boundary around Davis Cove and at the tip of the peninsular in the location of the

proposed marina as multi-purpose.⁷¹ The existing use of area around the proposed marina at the tip of the peninsula is for boating and recreation. As stated above, there is an existing commercial marina called the Shangri-La Marina, which is operated by Shangri-La Marina, LLC. This facility provides 163 slips for public use.

The use of the shoreline around Davis Cove is mainly residential, and there are currently 19 floating docks to serve single family homes. Recreational use levels are currently low in general within the cove. The two ponds adjacent to the far end of the cove are surrounded by the existing golf course and have no floating structures or facilities on them.

5.2.3.2 Environmental Effects

Boat Traffic and Navigational Safety

At the tip of the peninsula where the proposed new marina would be located, the reservoir is at a minimum, 1,534 yards wide and a maximum of 1,877 yards wide (GRDA June 2007). Clear views are afforded to boaters as they enter the main body of the lake. Given the distance between the proposed docks and the far shore, staff finds that the proposed dock configuration would not create an unsafe boating situation by interfering with navigation. There appears to be sufficient room for boats to pass the proposed marina at full power. Across the river from the proposed new marina is an area known as Woodward Hollow, a popular “rafting” cove during summer holiday weekends.⁷²

The existing and proposed marinas would essentially be in competition. In a letter filed with the Commission on November 6, 2006, the Shangri-La Marina, LLC, filed comments in opposition to this proposal stating: (1) there is not a need for another ship store, gas tanks, etc. in this area of Grand Lake as Shangri-La Marina is a full service marina; and (2) the location of the proposed marina will cause a safety issue for Grand Lake and the Shangri-La Marina entry and exit breakwater will be dangerous. As stated above, there appears to be sufficient room for boats to pass the proposed marina at full power. During periods of average boating levels, boats would be able to orderly enter and exit the two marinas into Grand Lake. However, during high periods of boat usage,

⁷¹ Pursuant to GRDA’s Draft Shoreline Management Plan, multi purpose areas currently support both residential and/or commercial uses, but without a clearly definable use pattern. These areas remain available for all uses, including, but not limited to: existing or potential future private residential waterfront development; commercial recreation facilities such as marinas; industrial facilities, business parks and industrial water access (intakes, discharges, etc.) and commercial agriculture. Subject to meeting site-specific criteria, GRDA will manage these lands to accommodate reasonable demands for public and private uses within the guidelines of GRDA’s Permitting Program.

⁷² The practice of tying boats together while boaters socialize is referred to as “rafting.”

such as weekends and holidays, and during storm events, increased boating congestion may occur near the entrance and exit points of the two marinas.

According to the application filed by Shangri-La Marina Group, LLC, the existing Shangri-La Marina is located on 0.356 acres of waterfront property and 19.395 acres of adjacent property. The existing Shangri-La Marina has a total of 163 boat slips available for lease to the public and 69 PWC slips for a total of 232 slips, and is operating at 92 to 94 percent capacity. Shangri-La Marina Group, LLC states that with only 163 slips available at the existing marina, there would appear to be a current need for more slips. According to the application, 350 homes exist within the Shangri-La development and 30 more units have been announced for new development. This leaves approximately 190 homes without a boat slip in the resort area. The proposed facilities would provide additional boating opportunities for the owners of homes in the Shangri-La development and visitors to the Shangri-La Resort patronizing the hotel and conference center, wellness center/spa, condominiums, and recreation center expected to be constructed on private land located outside and adjacent to the project boundary. The proposal's phased approach of installing 25 to 50 boat slips a year would tend to make boat slips available as the planned development located outside of the project boundary occurs.

According to the licensee's latest Licensee Hydropower Development Recreation Report (FERC Form 80)⁷³ filed with the Commission on July 14, 2003, there were 19 private and/or public marina facilities on or adjacent to Grand Lake waters being used at 80 percent capacity. Although it is unlikely that all 170 boats and/or 322 PWC using the proposed docks would be on the water simultaneously at any given time, a portion of these boats would contribute to cumulative traffic-congestion impacts on Grand Lake. These incremental effects would be most noticeable during peak boating periods on weekends and holidays during the summer. As stated above, increased boating congestion may occur near the entrance and exit points of the two marinas during these high periods of boat usage, such as weekends and holidays, and during storm events.

The licensee is required to file with the Commission every 6 years, a monitoring report documenting the current level of recreation use and shoreline development at the project pursuant to its Commission-approved long term recreation plan.⁷⁴ The last report

⁷³ In accordance with the Federal Power Act, the Commission requires owners of licensed projects to allow reasonable public access and use of project lands and waters for recreation. To evaluate recreational resources at these projects, the Commission requires most licensees to prepare and submit a FERC Form 80 (See 18 CFR 8.11). Project owners must submit a Form 80 report every 6 years.

⁷⁴ See 84 FERC ¶ 62,144 (1998). The report contains recreational use data and the results of surveys, traffic counts, lake patrol reports, and any other available information used to document recreation use and shoreline development at the project. Based on the

(continued)

was filed with the Commission on July 2, 2003, and the licensee reports two incidents in the main channel during 2002 (down from seven incidents in 2001). There does not appear to be an inordinate amount of incidents occurring in the main body of the reservoir. The next report will be required to be filed with the Commission on or before April 1, 2009.⁷⁵

Within Davis Cove, two docks would be built on either side of the cove. The diagram provided by the applicant indicates a distance of 150 feet between the docks allowing for ingress and egress. Pursuant to Shangri-La Marina Group, LLC's May 1, 2007 filing, the new cove area would be widened to a maximum of 350 feet. Based on the proposed dock design (docks 40 feet in length maximum with an additional 30 feet to reflect length added by the 6 foot headpier and walkway), this width would provide sufficient area to accommodate the dock while adhering to the one-third cove rule and open water requirement for Davis Cove.

Although it is unlikely that all 57 boats and/or 50 PWC using the proposed docks would be on the water simultaneously at any given time, a portion of the boats that are able to use the slips constructed in the cove would contribute to cumulative traffic-congestion impacts within Davis Cove and on Grand Lake. These incremental effects would again be most noticeable during peak boating periods on weekends and holidays during the summer. Pursuant to GRDA's rules and regulations, Davis Cove is currently marked by GRDA as a no-wake area (GRDA, June 2007). GRDA's Draft Carrying Capacity Recreational Boating Carrying Capacity Analysis Based Upon The Visitor Experience And Resource Protection Framework indicates that no area around the lake is near capacity except for isolated locations on holiday weekends that are located closer to the dam and not in the vicinity of this proposal. To better assess the specific navigational conditions of Davis Cove, the licensee should be required to review its Rules and Regulations as they pertain to Davis Cove, and file a report with the Commission specifying what measures will be provided to ensure navigational safety within Davis Cove.

ODWC in its comments filed on December 7, 2006, stated it was concerned with the loss of shoreline access to recreational users. The areas of concern in this proceeding are surrounded by private holdings, existing marinas, and a golf course. In terms of public access it is more likely that lake visitors who are pursuing recreational activities such as picnicking, swimming, or shoreline fishing would use the developed public-

monitoring report, the Commission has reserved the right to require changes to the approved long-term recreation management plan.

⁷⁵ The licensee is also required to promptly file with the Commission a report on safety-related incidents, should such incidents occur at the project. *See* 18 CFR Part 12, § 12.10 (2007).

recreation areas on Grand Lake, which include the 5 state and 15 municipal parks that exist along the project's shoreline. The mouth of the cove where Davis Cove opens into the main body of the reservoir does offer clear views for boaters as they enter the main body of the lake. These new docks would create additional boating opportunities for the owners of homes in the Shangri-La development. The proposed marinas are designed to provide adequate ingress and egress of boat traffic, thereby leaving adequate recreational space and open water for boat-related activities. Additional fish habitat will also be provided as a result of the proposed docks. Therefore, the areas around both marina facilities will provide for additional recreational fishing opportunities open to the public.

Land Use

Shoreline use around the proposed marina at the tip of Monkey Island will remain consistent with current uses, however general overall recreational use will increase with the associated hotel and conference center, wellness center/spa, condominiums, and recreation center proposed to be constructed on private land.

Land use around the shoreline of Davis Cove area will likely change to support the additional slips proposed as well as the increased recreational usage from the residents of the condominium owners and golf course patrons. The cove currently supports 19 slips for single family homes, and will experience an overall increase in shoreline recreational use associated with the additional PWC and boat slips. Long and short-term minor impacts on the current use of the cove would occur as a result from an increase in shoreline recreation, noise from increased boating density, and construction of the slips along the shoreline.

Paul and Laurie Ross filed information with the Commission on February 27, 2007, stating that the demolition of the dike closest to Davis Cove would intrude upon land they own. Concerning the property right issue brought up by the Duck Creek Homeowners Association and the Ross' in their February 27, 2007 filing, GRDA's June 11, 2007, filing includes a survey of the land around Davis Cove, conducted by Rose & McCrary, PC, that states the lands to be excavated for the construction of the slips are owned either by Shangri-La Marina Group, LLC or GRDA. The licensee is applying for Commission approval to allow non-project use of project lands and waters. To the extent the applicant needs additional property rights of other parties, that is a matter for it to resolve with those parties. Approval of this proposal would not convey our authorized use of those property rights held by other parties.

5.2.4 Cultural Resources

5.2.4.1 Affected Environment

The APE for the proposed use of project lands encompasses (1) approximately 2,350 feet of shoreline and immediately adjacent land proposed for the construction of

the new commercial marina facilities at the tip of the peninsula; and (2) approximately 1,400 feet of shoreline and immediately adjacent land associated with the proposed dredging operation, which would consist of the removal of approximately 62,000 cubic yards of material and addition of docks. The land within the APEs for both activities has been extensively disturbed due to past construction activities. The tip of the peninsula contains an existing marina, and the ponds are surrounded by an existing golf course. As a result, these areas are not expected to contain significant archaeological resources.

5.2.4.2 Environmental Effects

In a letter filed with the Commission on November 21, 2006, OHS states it reviewed the application and examined the information contained in the Oklahoma Landmarks Inventory files and other materials on historic resources available in its office. OHS states there are no known historic properties affected within the project's APE. In addition to its review, OHS stated contact with the OAS is necessary to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register.

In a letter dated April 2, 2007, the Commission initiated section 106 consultation with the OHS, OAS, and Tribal interests. The Seneca-Cayuga Tribe states it has no comments or objections to the proposed application, however, it would like to be notified should there be any impacted cultural resources, or any negative impacts on the waters of the Grand Lake of the Cherokees.

It is recommended that if any archeological or historic remains are discovered during construction, the applicant should (1) cease all work at the site immediately, and (2) consult with OHS, OAS, and any Tribes that might attach religious or cultural significance to the discovered materials, to determine if the remains warrant a recovery effort or if the site is eligible for listing on the National Register.

5.3 Staff Identified Alternative

In this section, we evaluate a staff identified alternative, which would eliminate the development of Davis Cove and require the proposed marina to allocate 57 boat slips and 50 PWC slips, originally intended for public use, and make them available to members of the Shangri-La residential condominium community.

Under this staff identified alternative, long and short-term minor impacts on the environment from the marina constructed at the tip of Monkey Island would occur. As identified in Sections 5.2.1.2, 5.2.2.2, and 5.2.3.2, construction of the proposed docks, and associated increases in the use of power boats and PWC, would have minor impacts on the shoreline in the vicinity of the marina. In addition, potential long-term effects on Grand Lake's water quality could arise from increased boating-related sources. Construction of the marina adjacent to the existing marina would have some short-term localized effects on water quality. Placement of the stiff arms and the installation of the docks would cause sediment disturbance and a short-term increase in turbidity and

suspended solids in the immediate area. This could cause short-term decreases in DO in the vicinity of the marina.

The proposed Davis Cove development, if constructed, would have some moderate short and long term effects on water quality and fisheries resources. In particular, the removal of the outboard dike and installation of the docks and associated anchoring points would cause sediment disturbance and a short-term increase in turbidity and suspended solids in the immediate area. In addition, the installation of the docks would reduce the amount of shoreline within the back end of the cove. Eliminating the Davis Cove development would therefore lower the effects on water quality to minor levels (See Table 1).

Further, the Davis Cove development would have some moderate short and long term effects on boating and navigation within the cove. A portion of the boats that are able to use the slips constructed in the cove would contribute to cumulative traffic-congestion impacts within Davis Cove and on Grand Lake. The Duck Creek Homeowners Association filed concerns about boat clearance and congestion within Davis Cove. Eliminating the Davis Cove development would therefore lower the effects on boating navigation (See Table 1).

In addition, the potential for releasing heavy metals from contaminated sediments may pose a risk. There is also a potential for releasing any heavy metals from contaminated sediments that may exist within the Davis Cove bed following excavation. This risk would be avoided by eliminating the Davis Cove development. In comments filed by the Interior and ODWC, the agencies raised a concern that disturbing Grand Lake sediments in the ponds or near the dikes may cause some heavy metals to be released or exposed. In addition, the presence of heavy metals in excavated material may restrict disposal options. The Duck Creek Homeowners Association also filed concerns about possible heavy metal inflows from the ponds and the need for sediment testing. Eliminating the potential release of sediments and potential heavy metals contaminants would benefit water quality and dependent fisheries resources.

According to the applicant, the recreational amenities that will be constructed off project lands include 160 hotel rooms and 73 condominiums.⁷⁶ The proposal for the new commercial marina at the tip of the Monkey Island peninsula calls for the development of a total of 496 slips. The existing Shangri-La Marina has a total of 163 boat slips available for lease to the public and 69 PWC slips for a total of 232 slips. Therefore, a total of 728 slips would be available to the public at the tip of Monkey Island if the applicant's proposal was approved.

To accommodate the lost slips from the Davis Cove development as called for in the staff identified alternative, the proposed commercial marina would have to allocate

⁷⁶ Supplemental information filed by the applicant on February 1, 2007.

107 slips (57 boat slips and 50 PWC slips) to Shangri-La residential community residents for private use. This would represent a loss of 22 percent of the slips at the new marina available for public use in comparison with the proposed action. A total of 617 slips (276 boat slips, excluding fuel slips, and 341 PWC slips), including those available from the existing Shangri-La Marina and those from the newly proposed marina, would remain open to the public and available for use by patrons and customers of the hotel and conference center, wellness center/spa, and recreation center expected to be constructed on private land outside and adjacent to the project boundary.

The application states that out of the 350 homes that exist in the Shangri-La development area, 190 homes currently exist without a slip available. If all 160 hotel rooms, 73 condominium owners, and 190 existing home owners utilized a single slip from the marina, 496 slips would be required. Under this staff identified alternative, there would be an adequate availability of slips for the development and for public use.

According to the applicant, condominium owners would be required to travel one mile to the marina to use the slips. This distance is similar to what would be required of existing home owners and customers of the proposed hotel and conference center, wellness center/spa, and recreation center. While the applicant does not provide exact sales figures or budgeting information, they state the loss of the close proximity between the proposed condominiums and the residential slips proposed for Davis cove would result in a loss of revenue that would otherwise be available, and necessary to ensure adequate revenues from the condominium sales to support the overall development.

5.4 No-Action Alternative

If GRDA’s application were denied, Shangri-La Marina Group, LLC would be denied the ability to install a commercial marina including 4 boat docks with 170 boat slips; 4 fuel slips; 4 PWC fueling ramps; 322 PWC lifts; and a ship store, fuel service, boat ramp, and a breakwater for commercial purposes. In addition, Shangri-La Marina Group, LLC would be denied the ability to dredge two ponds located on the Shangri-La golf course adjacent to the lake and install four docks with 57 boat slips and 50 PWC slips for use by the Shangri-La residential community. There would be no change to environmental conditions in the project area.

6.0 CONCLUSIONS

The following table summarizes the probable environmental effects of the proposed action and the staff identified alternative.

Table 1. Probable environmental effects of the proposed action and the staff identified alternative. (Source: Staff)

Resource Issue	Impact Rating (proposed action) ^a			Impact Rating (staff identified alternative) ^a		
Shoreline stability and soil erosion	1	A	L	1	A	S

Wildlife and riparian habitat	1	A	S/L	1	A	S
Threatened and endangered species		NI			NI	
Water quality and lake-bed sedimentation	2 ⁷⁷	A	S/L	1	A	S/L
Fisheries and littoral habitat	1	A B 78	S/L	1	A	S/L
Wetland functions and values		NI			NI	
Boating use and navigational safety	1	A	L	1	A	L
Archaeological and historic properties		NI			NI	

^a 1 – Minor A – Adverse S – Short term
2 – Moderate B – Beneficial L – Long term
3 – Major NI – No impact

Commission staff has evaluated the environmental effects of the proposed action, the staff identified alternative, and the no-action alternative. We find that, the proposed action and staff identified alternative would have some long and short-term minor to moderate impacts on the environment.

Should the proposed action be approved, we recommend using standard best management practices for soil and erosion control, including silt fence installation at elevation 757.07 PD that would remain in place as a barrier for the duration of the construction of the marina and restoration of the cove area. Shangri-La Marina Group, LLC states it plans to utilize the “one-step” excavation and removal method and would be disposing of the material above elevation 757.0, as instructed by the Corps. Further, Shangri-La Marina Group, LLC will allow the Corps to monitor the construction activity. Shangri-La Marina Group, LLC plans to develop a stormwater pollution prevention plan to reduce impacts from soil-disturbing and construction activities at the proposed marina. We recommend this plan be filed with the Commission for approval prior to construction. We recommend that sediments from the ponds within Davis Cove be screened prior to dredging with adequate testing with composite core samples from the ponds to determine

⁷⁷ Moderate impacts refer primarily to conditions within Davis Cove.

⁷⁸ Minor impacts include short-term adverse impacts to fish as a result of increased turbidity during construction and long-term benefits to fish habitat provided by docking structures.

the presence of heavy metals. We also recommend that sediments from the lake bed within Davis Cove also be screened after dredging activities have ceased, and before the outmost dike is removed in order to avoid any possible contamination into Grand Lake. The licensee should be required to develop this core sampling/ heavy metal monitoring plan in consultation with the ODWS and FWS. This would determine whether or not the ponds are a source of contaminants and whether the excavated material can be disposed of without special handling. Should the results of this testing reveal the presence of contaminants, the permittee should notify the licensee, who must then develop, in consultation with the appropriate resource agencies, a mitigation and implementation plan describing specific measures to address contaminant levels. The plan should be filed for Commission approval before commencing any construction or dredging activities in Davis Cove.

We also recommend that GRDA file a mitigation plan with the Commission for approval prior to construction in order to offset the disturbances to shoreline and riparian resources that would occur during the proposed dredging activities. We further recommend that a survey be completed to determine whether the ABB exists within the area of Davis Cove where the excavation is proposed. If the ABB is found to exist within the disturbed area, GRDA should file a mitigation plan with the Commission for approval prior to construction in order to offset the disturbance to the ABB that would occur during the proposed excavation activities. Lastly, the licensee should review its Rules and Regulations as they pertain to Davis Cove, and file a report with the Commission specifying what measures will be provided to ensure navigational safety within Davis Cove.

If the staff identified alternative were approved by the Commission, we would recommend using standard best management practices for soil and erosion control for the duration of the construction of the marina at the tip of the Monkey Island peninsula. In addition, we recommend the licensee's stormwater pollution prevention plan be filed with the Commission for approval prior to construction.

If either the proposed action or the staff identified alternative were approved, we further recommend that GRDA take all reasonable precautions so that the operation and maintenance of the facilities would occur in a manner that protects the scenic, recreational, and other environmental values of the project. Construction of the proposed facilities is not likely to affect cultural resources; however, we recommend that GRDA include a provision that if any archeological or historic remains are discovered during construction, Shangri-La Marina Group, LLC, should (1) cease all work at the site immediately, and (2) consult with OHS, OAS, and any Tribes that might attach religious or cultural significance to the discovered materials to determine if the remains warrant a recovery effort or if the site is eligible for listing on the National Register. In addition, we recommend GRDA take all necessary precautions to ensure safe boating conditions for the public. GRDA's Rules and Regulations include a number of boating-related

requirements to address these concerns. These boating provisions include speed, buffer-zone, time-of-day, and activity restrictions and prohibitions.

Based on the information and analyses contained in this EA, we find that approving the licensee's application, the staff identified alternative, or the no-action alternative would not constitute a major federal action significantly affecting the quality of the human environment.

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8.0 LIST OF PREPARERS

Federal Energy Regulatory Commission

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APPENDIX A

STAFF RESPONSE TO COMMENTS ON THE PENSACOLA DRAFT EA

The Federal Energy Regulatory Commission (Commission or FERC) issued its draft environmental assessment (EA) for the proposed non-project use of project lands application of the Pensacola Project on April 2, 2007. The Commission requested comments be filed by May 1, 2007, and the following entities filed comments pertaining to the Draft EA:

<u>Commenting Entities</u>	<u>Date of Letter</u>
Seneca-Cayuga Tribe	April 10, 2007
Cheryl Lenhart	April 18, 2007
US Fish and Wildlife Service(e-mail)	April 30, 2007
Grand River Dam Authority	May 1, 2007
Shangri-La Marina Group, LLC	May 1, 2007
Duck Creek Homeowners Association	May 1, 2007

Responses Filed After the Notice Deadline

Paul and Laurie Ross	May 8, 2007
Paul and Laurie Ross	June 29, 2007
Donald D. Dill	June 29, 2007

In this appendix, we summarize the comments received, provide responses to those comments, and indicate where we have modified the text of the EA.

Seneca-Cayuga Tribe

Comment: The Seneca-Cayuga Tribe states it has no objections to the proposed application. The Seneca-Cayuga Tribe comments that it would like to be notified should there be any impacted cultural resources, or any negative impacts on the waters of the Grand Lake of the Cherokees.

Response: A paragraph has been added to Section 4.0 Agency Consultation and Public Involvement to explain the section 106 consultation requirement. The EA recommends that GRDA include a provision that if any archeological or historic remains are discovered during construction, Shangri-La Marina Group, LLC, should (1) cease all work at the site immediately, and (2) consult with OHS, OAS, and any Tribes that might attach religious or cultural significance to the discovered materials to determine if the remains warrant a recovery effort or if the site is eligible for listing on the National Register. No additional changes are necessary in the EA.

Cheryl Lenhart

Comment: Concerning the proposed construction in Davis Cove, 35-50 percent of the existing barrier proposed to be removed is located on private property.

Response: GRDA's June 11, 2007, filing includes a survey of the land around Davis Cove, conducted by Rose & McCrary, PC, and states that the lands to be excavated for the construction of the slips are owned either by Shangri-La Marina Group, LLC or GRDA.

Comment: The end of Davis Cove is narrow and shallow making it necessary to dredge in front of and disturb the citizens that are at the mouth of the cove and if approved the residential cove will be changed to commercial.

Response: In the EA, we address effects on environmental resources related to the dredging and the change in boating use within the cove.

Comment: Section 3.1 the GRDA's Board of Directors and the GRDA Assets Committee both agreed the waivers of the dock-placement provisions of its Rules and Regulations on the same day, subject to the modification to reconfigure the docks so they would not be inconsistent with the one-third cove rule. Also, a waiver of the 125-foot dock length and perpendicular rules, Article IV(7), was approved for Davis Cove, with a drawing that was not even drawn to scale. Mr. Boylan would not consider the alternatives from the GRDA.

Response: Data filed after the issuance of the Draft EA demonstrates that the Davis Cove component will in fact be in compliance with the one-third cove rule. Section 3.1, Proposed Action has been modified to correct the error in the original dimensions of the existing cove. Section 5.2.3.2, Environmental Effects, Boat Traffic and Navigational Safety, has also been modified to show compliance with the one-third cove rule. Section 5.3, Staff Identified Alternative has been modified to delete reference of possible non-compliance with one-third cove rule. In addition, Section 6.0, Conclusions, has been modified to delete the recommendation that GRDA file with the Commission for approval, a modified dock configuration for the residential marina in Davis Cove that conforms to the one-third cove rule for the purposes of instilling boating and navigational safety. In the EA, we address effects on environmental resources. The EA also addresses effects on environmental resources for the Proposed Action, a Staff Identified Alternative, and a No-Action alternative. Policy issues will be addressed in the Commission's order.

Comment: This project has a red flag concerning heavy metals and pesticide testing in the small ponds.

Response: In the EA, we address effects on environmental resources related to the possible heavy metals and pesticide presence in the two ponds. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

Comment: This project has a red flag concerning the dredging of over 100,000 cubic yards.

Response: In the EA, we address effects on environmental resources related to the dredging of 62,000 cubic yards of materials in Davis Cove in Sections 5.2.1.2 and 5.2.2.2.

Comment: Cheryl Lenhart is in complete agreement with Section 3.4, No-Action Alternative.

Response: Comment noted.

Comment: The notices posted in the Grove Sun, Grand River Chronicle, and Vinita Daily Journal would have little impact on people living in Tulsa, OK.

Response: Comment noted. Policy issues will be addressed in the Commission's order.

Comment: Mr. Boylan would not disclose his investors or if he would even build the project without public money from Oklahoma.

Response: Comment noted.

Comment: Grand Lake is currently listed as impaired on the 303 (d) lists of Oklahoma, Missouri and Kansas. Section 5.2.2.1 states Mr. Boylan did not include any information in his application about sediments found in the two ponds or the contaminants that would be present due to the fact that these ponds have had run-off from the pesticides of the golf course and also the sediments that would have been present before the two barriers were installed for the golf course. GRDA has not been active in monitoring the quality of the water, the dumping of sewage from the large boats or enforcing their own rules. It is a major problem for Grand Lake to rely only on the lake patrol for its protection.

Response: In the EA, we address effects on the issue of water quality and monitoring occurring at Grand Lake and within Davis Cove specifically. We also recommend standard best management practices for soil and erosion control, including silt fence installation at elevation 757.07 PD that would remain in place as a barrier for the duration of the construction of the marina and restoration of the cove area. In addition, we recommend the licensee's proposed stormwater pollution prevention plan to be filed with the Commission for approval prior to construction. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

Comment: Cheryl Lenhart has been in and out of the existing Shangri-La marina and the lake is very turbulent as you enter the main lake. It is hard to see if there are boats either coming from the right or left, much less being able to see around Mr. Boylan's proposed docks that will attach to the public property and jutting out into the main lake. It will be impossible to maneuver all of the boats in and out of this area.

Response: In the EA, we address effects on boating navigation and safety.

Comment: Article 18 of Form L-3 provides that the licensee shall allow the public free access. By giving Mr. Boylan the use of the property surrounding the current marina it takes away the use of this public land and sets a precedent for the GRDA to allow more encroachment on public land.

Response: In the EA, we address effects on public access to project lands and waters.

Comment: Section 5.2.3.2 Environmental Effects Mr. Boylan states that 350 homes exist with the Shangri-La development but he does not state how many of those homes have boats, have their boats in the current Shangri-La marina, or are in boat-docks of their home-owners docks. The existing marina is not full which indicates there is no need for more slips. The GRDA does not give the FERC reports that are consistent with the actual recreation and shoreline development.

Response: The EA contains the most current environmental information known to date that has been filed with the Commission for this proceeding. No new information describing the number of existing homes with or without boats has been filed with the Commission.

Comment: Cheryl Lenhart agrees with Section 5.4, No-Action Alternative which would insure that the environmental conditions at Grand Lake would not worsen.

Response: Comment noted.

US Fish and Wildlife Service

Comment: The FWS stated it had previously provided comments related to the proposed marina development and that it appreciated that metals testing of dredged sediments had been incorporated into the Draft EA.

Response: Comment noted.

Comment: The FWS concur with the "not likely to adversely affect determination" for the following federally-listed species: Ozark cave fish, Gray bat, Indiana bat, Ozark big-eared bat, Bald eagle, and Piping plover.

Response: Comment noted. A paragraph has been added to Section 4.0 Agency Consultation and Public Involvement to explain the section 7 consultation requirement.

Comment: The FWS does not concur with the “not likely to adversely affect determination” for the American burying beetle (ABB). The FWS states the total amount of soil disturbance related to the proposed action is not provided in the Draft EA, but assuming it is more than 1.2 acres, the FWS would recommend a survey to determine if the beetles are present prior to any soil disturbance. Areas to be impacted by disposal of dredged material and all development related to the proposed marina should be included in your assessment of project-related impacts. The FWS states the ABB is known to occur in adjacent counties and could occur in the project area.

Response: Taking into consideration the excavation lands around Davis Cove and the disposal site for 62,000 cubic yards of material, it is probable that the amount of disturbed land would exceed 1.2 acres. The EA notes this and we recommend that a survey be completed to determine whether the ABB exists within the area of Davis Cove where the excavation is proposed. If the ABB is found to exist within the disturbed area, GRDA should file mitigation with the Commission for approval prior to construction in order to offset the disturbance to the ABB that would occur during the proposed excavation activities.

Comment: The FWS attached standard recommendations for the ABB and stated its web site has additional information on the species.

Response: Text has been added to Section 5.2.1.2, Terrestrial Resources to explain the environmental measures for the ABB.

Grand River Dam Authority

Comment: GRDA states it has read the comments filed in response the Draft EA submitted by Shangri-La Marina Group, LLC, and endorses those comments and emphasizes its emphatic support for the Proposed Action.

Response: Comment noted.

Comment: GRDA states that after extensive consideration of a broad array of input from the affected community-a far broader community than now presents itself before this Commission-GRDA concluded that the Proposed Action would bring substantial benefit to the region in both the business climate and its recreational development with due concern for the environment and safety practices. The GRDA states the Proposed Action would unquestionably help improve the quality of life in the region.

Response: Comment noted.

Comment: GRDA states it understood the Proposed Action as a comprehensive project-encompassing both the Marina and the Davis Cove components. Shangri-La Marina Group, LLC states that elimination of the Davis Cove component of the development would jeopardize its ability to proceed with the Proposed Action at all. GRDA states that if the resulting partial project is no longer viable, the region will suffer an irreplaceable lost opportunity, in terms of economic and recreational development.

Response: Comment noted.

Comment: With regard to the sediment issue, GRDA's December 22, 2006, comments referred to the analysis of Dr. Townsend, a biologist for GRDA with experience in the region. As stated by Dr. Townsend, all available data suggest that heavy metals are located far from the area of Davis Cove. The GRDA refers to the Corps' two letters which state the proposal would only involve minimal discharges incidental to excavation and no section 404 permit would be required if a "one-step excavation and removal method" were used. GRDA further states that Shangri-La Marina Group, LLC has made it clear that it will follow that methodology and follow the notification requirement established by the Corps. In addition, the GRDA states Shangri-La Marina Group, LLC will employ siltation and sedimentation barriers consistent with the Corps' directives to further reduce any sediment risks. The GRDA states any sediment issues raised by the excavation near Davis Cove are not of the magnitude that would justify eliminating the Davis Cove component of the Proposed Action.

Response: In the EA, we address effects on the issue of water quality and monitoring occurring at Grand Lake and within Davis Cove specifically. We also recommend standard best management practices for soil and erosion control, including silt fence installation at elevation 757.07 PD that would remain in place as a barrier for the duration of the construction of the marina and restoration of the cove area. In addition, we recommend the licensee's proposed stormwater pollution prevention plan to be filed with the Commission for approval prior to construction. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

Comment: The GRDA states in regard to the one-third cove rule, that they endorse Shangri-La Marina Group, LLC's comments which includes the corrected data. The data demonstrates that the Davis Cove component will in fact be in compliance with the one-third cove rule and there is no justification for eliminating the Davis Cove component due to the one-third cove rule.

Response: Section 3.1, Proposed Action has been modified to correct the error in the original dimensions of the existing cove. Section 5.2.3.2, Environmental Effects, Boat Traffic and Navigational Safety, has also been modified to show compliance with the one-third cove rule. Section 5.3, Staff Identified Alternative has been modified to delete reference of possible non-compliance with one-third cove rule. In addition, Section 6.0,

Conclusions, has been modified to delete the recommendation that GRDA file with the Commission for approval, a modified dock configuration for the residential marina in Davis Cove that conforms to the one-third cove rule for the purposes of instilling boating and navigational safety.

Shangri-La Marina Group, LLC

Comment: Shangri-La Marina Group, LLC concurs with the Draft EA's conclusion that the Proposed Action will not constitute a major federal action significantly affecting the quality of the human environment. Shangri-La Marina Group, LLC does not concur, however, with all of the Draft EA's assertions regarding the potential impacts of the Proposed Action and, therefore, does not support the Staff Identified Alternative and certain recommended conditions applicable to both the Proposed Action and the Staff Identified Alternative.

Response: Comment noted.

Comment: Shangri-La Marina Group, LLC states that in describing the Staff Identified Alternative, the Draft EA explains that eliminating the Davis Cove component of the Proposed Action would avoid "minor short and long term effects on water quality and fisheries resources" and the potential for the creation of navigational and safety hazards based upon the width of the docks to be placed in the Cove. Shangri-La Marina Group, LLC states the Draft EA inconsistently characterizes the nature of the impacts on water quality. The effects are described as "localized short-term, moderate effects." These inconsistencies alone call into question the conclusions of the Draft EA on this matter and thus undermine any proposal to eliminate the Davis Cove component of the Proposed Action.

Response: In Section 5.3, Staff Identified Alternative, the first sentence of the third paragraph has been modified to be consistent with Section 5.2.2.2 and Table 1 by changing the word "minor" to "moderate". Also, the third sentence of this third paragraph has been modified to be consistent with Table 1. In Section 5.2.2.2, Environmental Effects, Water Quality and Lake Sedimentation, Commission staff states the excavation of the two ponds, removal of the dikes, and construction of the proposed docks would have some localized short-term, moderate effects on water quality in Davis Cove. Two paragraphs below this statement Commission staff states that potential long-term effects on Grand Lake's water quality could arise from increased boating-related sources attributable to use of the marina and Davis Cove docks. Table 1 summarizes the probable environmental effects by combining the effects.

Comment: Shangri-La Marina Group, LLC has always planned to utilize the "one-step" excavation and removal method and will be disposing of the material above elevation 757.0, as instructed by the Corps. Further, Shangri-La Marina Group, LLC will follow the notification requirement in the Corp's February 21 letter which will allow the Corps

to monitor the construction activity. Additionally, Shangri-La Marina Group, LLC will employ siltation and sedimentation barriers consistent with the Corps' directives for this methodology. Shangri-La Marina Group, LLC will also use standard best management practices for soil and erosion control, and follow an appropriate stormwater pollution prevention plan. Finally, the Davis Cove docks will be anchored to the shore with stiff arms, in lieu of underwater anchors.

Response: This clarification has been added to Section 5.2.1.2, Environmental Effects, Shoreline Stability and Soil Erosion. In addition, the words "underwater anchors" has been replaced with "stiff arms" throughout the document.

Comment: The Draft EA postulates that disturbance caused by the construction of the proposal for Davis Cove may potentially release heavy metals from contaminated sediments. Consistent with the Corps' findings, the one-step excavation and disposal method for the removal of both dikes, including the outboard dike, with the use of the appropriate siltation and sedimentation preventative measures, as proposed, will minimize if not eliminate sediment disturbance, as well as increases in turbidity and suspended solids. Moreover, sediment disturbance, increases in turbidity and suspended solids cannot be caused by installation of the anchoring points, since the stiff arms to be used for anchoring will be located on shore. No evidence exists to suggest that heavy metals exist in such sediment in this area. This explanation and Shangri-La Marina Group, LLC's commitment to compliance with the terms of the Corps' determinations should alleviate the concerns regarding potential effects on water quality and fisheries resources.

Response: Water quality and effects to fisheries resources were evaluated in the Draft EA. The Interior, FWS and ODWC all express concern and recommend testing the sediments for heavy metals and pesticides. Commission staff's water quality analysis in Section 5.2.2.1, Affected Environment, Water Quality and Lake-Bed Sedimentation found that sediment testing and monitoring would reveal any presence of contaminants and the need to implement a remediation plan within the ponds.

Comment: Upon review of FERC's Draft EA, it has come to Shangri-La Marina Group, LLC's attention that the EA they submitted in their original proposal contained a ministerial error in the description of the Cove measurements that may have contributed to the confusion evident in the Draft EA. In describing the proposal's compliance with GRDA's one-third open water requirement, Shangri-La Marina Group, LLC's EA mistakenly refers to the existing measurements of the two golf course ponds as the proposed measurements for the Cove following excavation. Following removal of the cart bridges/dams and expansion of the Cove, the width of Davis Cove will be a maximum of approximately 350 feet. Assuming the boat docks are +/-70 feet long on each side of the Cove, a maximum of 140 feet of the width of the Cove will be occupied by the docks. There will be sufficient room to comply with the one-third open water

requirement. Approximately 150 feet of open water will exist between the docks extending from the opposite shorelines. Based upon a width of 330 feet, compliance with GRDA's one-third open water rule would require 110 feet of open water. Accordingly, Shangri-La Marina Group, LLC's proposal to provide approximately 150 feet of open water more than satisfies this requirement.

Response: Section 3.1, Proposed Action has been modified to correct the error in the original dimensions of the existing cove. Section 5.2.3.2, Environmental Effects, Boat Traffic and Navigational Safety, has also been modified to show compliance with the one-third cove rule. Section 5.3, Staff Identified Alternative has been modified to delete reference of possible non-compliance with one-third cove rule. In addition, Section 6.0, Conclusions has been modified to delete the recommendation that GRDA file with the Commission for approval, a modified dock configuration for the residential marina in Davis Cove that conforms to the one-third cove rule for the purposes of instilling boating and navigational safety.

Comment: There is no reason to believe that sediments in the two ponds in the back of Davis Cove contain heavy metals, or that such sediments will be released if the ponds are excavated as proposed. Shangri-La Marina Group, LLC's proposed construction method will, as confirmed by the Corps, result in minimal, if any discharge of excavated or fill material into the Cove. Excavation of the Cove for purposes of widening will occur prior to removal of the western-most dike. Removal of the dike will be performed in compliance with standard best management practices. The proposal to eliminate the Davis Cove component of the project lacks a sound evidentiary basis; therefore, any decision to adopt the Staff Identified Alternative would be woefully inadequate under applicable statutory decision-making standards.

Response: The Interior, FWS and ODWC all express concern and recommend testing the sediments for heavy metals and pesticides. Commission staff's water quality analysis in Section 5.2.2.1, Affected Environment, Water Quality and Lake-Bed Sedimentation found that sediment testing and monitoring would reveal any presence of contaminants and the need to implement a remediation plan within the ponds.

Comment: The Staff Identified Alternative, by entirely eliminating a key component of the proposal without adequate reasoning, inappropriately puts FERC in the position of re-planning the entire proposal and reflects a failure to appreciate the financial implications of eliminating the Davis Cove proposal. Shangri-La Marina Group, LLC's clarification of the factual misunderstandings which apparently generated the alternative of eliminating the Davis Cove component of the Proposed Action entirely undercuts any factual basis for approving the Staff Identified Alternative. However, in order to emphasize the importance of the Davis Cove proposal and to correct the record, Shangri-La Marina Group, LLC is compelled to dispel the Draft EA's assertions regarding the need for the Davis Cove component of the Proposed Action. Elimination of the Davis

Cove proposal jeopardizes Shangri-La Marina Group, LLC's ability to proceed with the entire Resort redevelopment.

Response: Comment noted.

Comment: The use of standard best management practices for soil and erosion control has been incorporated into Shangri-La Marina Group, LLC's proposal and they will implement the specific measures described in the Corps' comments, including the use of silt fencing at elevation 757.07. Shangri-La Marina Group, LLC has also committed to developing and implementing a stormwater pollution prevention plan. Although they believe it is unnecessary for such a plan, which will include standard measures tailored to the site to prevent stormwater pollution, to be approved by the Commission prior to commencement of construction, Shangri-La Marina Group, LLC does not object to this requirement.

Response: Comment noted.

Comment: FERC Staff's recommendation for pre-excavation sediment testing and monitoring is not based on sound evidence and appears to be a reflexive reaction to unsupported assertions. Because little to no sediment will be released, there is no need for sampling or monitoring. The Corps' determination that Shangri-La Marina Group, LLC's construction method does not require a section 404 permit necessarily means that nothing more than a minimal discharge incidental to excavation will occur and, as FERC noted in the Draft EA, using this construction method, "impacts associated with sedimentation and turbidity from the dredging process should be mitigated for adequately." Accordingly, because nothing more than minimal excavation material from the ponds will be released by the Proposed Action, sampling and monitoring of pond sediments for heavy metals is not supported by substantial evidence in the record. If notwithstanding the lack of record support, the Commission adopts the Draft EA's recommendation for sediment sampling and monitoring, the Commission's order, at a minimum, should define parameters for the sampling and monitoring protocol consistent with the Draft EA and existing state standards and protocols.

Response: The Interior, FWS and ODWC all express concern and recommend testing the sediments for heavy metals and pesticides. Commission staff's water quality analysis in Section 5.2.2.1, Affected Environment, Water Quality and Lake-Bed Sedimentation found that sediment testing and monitoring would reveal any presence of contaminants and the need to implement a remediation plan within the ponds.

Comment: In light of the minor, short-term impacts to fish and wildlife identified in the Draft EA and Shangri-La Marina Group, LLC's commitment to revegetating exposed soil areas using native herbaceous species to offset any potential impacts to fish, wildlife and their habitat, Shangri-La Marina Group, LLC questions the need for further mitigation

measures. However, if additional mitigation measures are required, Shangri-La Marina Group, LLC suggests that any plan be limited to the provision of additional aquatic habitat enhancements.

Response: Comment noted.

Comment: Shangri-La Marina Group, LLC agrees to implement the following additional measures recommended by the Draft EA:

- Take all reasonable precautions so that the operation and maintenance of the facilities would occur in a manner that protects the scenic, recreational, and other environmental values of the project;
- If any archeological or historic remains are discovered during construction, Shangri-La Marina Group, LLC will (1) cease all work at the site immediately, and (2) consult with Oklahoma Historical Society, Oklahoma Archaeological Survey, and any Tribes that might attach religious or cultural significance to the discovered materials; and
- Comply with GRDA-required precautions to ensure safe boating conditions, including speed, buffer-zone, time-of-day, and activity restrictions and prohibitions.

Response: Comment noted.

Comment: The Draft EA recommends that GRDA file a work plan with the Commission pursuant to the Corps' recommendation if Shangri-La Marina Group, LLC does not implement a "one-step" excavation and removal method for excavating the ponds within Davis Cove. Shangri-La Marina Group, LLC has clarified and reconfirmed that it will implement the "one-step" excavation and removal method in compliance with Corps requirements. In the event Shangri-La Marina Group, LLC determines that another construction process is preferable, it will file a work plan with the Corps, as required by the Corps' February 21st letter. Inasmuch as this plan is intended for a determination regarding a Corps section 404 permit, the Commission's consideration of such a plan would appear unnecessary. However, Shangri-La Marina Group, LLC has no objection to GRDA submitting a copy of the plan to the Commission for informational purposes.

Response: Comment noted.

Duck Creek Homeowners Association

Comment: The Association is in favor of the staff recommendation regarding the Davis Cove portion of the project; specifically that Davis Cove not be disturbed and that the 107 slips planned for this small cove be added to the primary marina location. This endorsement in no way negates the objectives to the primary marina raised in its intervention(s). However, the issues before the Commission on the two elements of the

application are so different that they can justify such split recommendations from the Commission.

Response: Comment noted.

Comment: In essence, the Commission's Draft EA acknowledged most of the Association's environmental concerns with Davis Cove. The Association is disappointed with the Commission's unwillingness to rule definitively on the issues of private property encroachment onto adjacent owners and the projection of property lines onto the Davis Cove Dikes, approximately 60 percent of which is on the Ross' property line.

Response: GRDA's June 11, 2007, filing includes a survey of the land around Davis Cove, conducted by Rose & McCrary, PC, and states that the lands to be excavated for the construction of the slips are owned either by Shangri-La Marina Group, LLC or GRDA.

Other comments from the Duck Creek Homeowners Association

A. Recommendation of Resource Agencies for metals testing denied by GRDA staff biologists.

Response: In the EA, we address effects on environmental resources related to the possible heavy metals and pesticide presence in the two ponds. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

B. Lack of ownership of shoreline behind (shoreward) of primary marina.

Response: Should the applicant require additional property rights of other parties, it is the applicant's responsibility to resolve these issues with those parties as stated in the Draft EA in Section 5.2.3.2, Environmental Effects, Land Use.

C. Shoreline classification violations on pending SMP draft.

Response: GRDA's Draft Shoreline Management Plan classifies the shoreline around Davis Cove and in the vicinity of the proposed marina as multi-purpose. The text of the EA has been changed to indicate this classification. According to the Draft Shoreline Management Plan, multi purpose areas currently support both residential and/or commercial uses, but without a clearly definable use pattern. These areas remain available for all uses, including, but not limited to: existing or potential future private residential waterfront development; commercial recreation facilities such as marinas; industrial facilities, business parks and industrial water access (intakes,

discharges, etc.) and commercial agriculture. Subject to meeting site-specific criteria, GRDA will manage these lands to accommodate reasonable demands for public and private uses within the guidelines of GRDA's Permitting Program. Commission staff sees no shoreline classification violations with the Draft Shoreline Management Plan.

D. Violation of the one-third cove rule (Davis Cove).

Response: Data filed after the issuance of the Draft EA demonstrates that the Davis Cove component will in fact be in compliance with the one-third cove rule. Section 3.1, Proposed Action has been modified to correct the error in the original dimensions of the existing cove. Section 5.2.3.2, Environmental Effects, Boat Traffic and Navigational Safety, has also been modified to show compliance with the one-third cove rule. Section 5.3, Staff Identified Alternative has been modified to delete reference of possible non-compliance with one-third cove rule. In addition, Section 6.0, Conclusions has been modified to delete the recommendation that GRDA file with the Commission for approval, a modified dock configuration for the residential marina in Davis Cove that conforms to the one-third cove rule for the purposes of instilling boating and navigational safety

E. Doubling or even tripling of boat densities in the narrowest portion of the cove, with resultant noise and safety concerns at Ross and Dill docks.

Response: In the EA, we address effects on boating navigation and safety.

Comment: Concerning sediment testing, the Association states that it is recommended by both ODWC and FWS, and also by all Committees of the SMP in progress, and Terry Hallaer of ODEQ. Enough out-of limits testing has been performed at Grand Lake to more than justify this recommendation.

Response: In the EA, we address effects on environmental resources related to the possible heavy metals and pesticide presence in the two ponds. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

Comment: FERC has correctly identified multiple concerns. It is correctly classified as a dredging project under FERC definitions; the only definition pertinent in this evaluation.

Response: Commented noted.

Comment: The Association claims the Applicant misuses a court case cited in a manner which would benefit deficiencies in this application. If construction details are not detailed and committed in the application, the Commission cannot be found in error for

reasonable and valid assumptions on the process. For example, the Applicant details no rip-rap or retaining walls in Davis Cove. Therefore, permit under section 404 of the Clean Water Act is required.

Response: By letter dated April 18, 2006, the Corps recommends a silt fence be placed at elevation 756.00 feet above mean sea level and that it remain in place as a barrier for the duration of the construction of the project. The Corps also recommends that any damage observed to the silt fence be repaired within 24 hours. By letter dated March 6, 2007, the Corps states that the only way the dredging component of the proposal can be accomplished without need for prior authorization under section 404 of the Clean Water Act is through the implementation of a one-step excavation and removal method, whereby excavated material is placed in a truck bed and hauled to an approved disposal site. The Corps states they will consider the property above elevation 757.0 an approved disposal site provided the site does not contain wetlands and the dredged spoil is properly controlled with staked-in-place straw bales, siltation fence, or other appropriate means of containment. By letter dated June 11, 2007, the Applicant states they will implement the one-step excavation and removal method in Davis Cove.

Comment: The intended docks remain in violation of the one-third cove rule. In addition, the true bottle neck and safety concern in Davis Cove is uncontested- it is the 85' gap between the long-standing and properly permitted Ross and Dill docks, through which all this new traffic, including visitors to the golf course, must travel.

Response: The data demonstrates that the Davis Cove component will in fact be in compliance with the one-third cove rule. In the EA, we address effects on boating navigation and safety.

Comment: On previous FERC evaluations, the Commission has required 1 ½ times boat slip length for disengagement and egress from the dock at commercial facilities. This application has 40-foot and 30-foot slips opposite each other, requiring 60 feet and 45 feet (respectively) to meet this requirement. There is barely 105 feet that exists at the narrow end, and it will not exist at the 85-foot clearance between Ross and Dill docks which must back into this heavy traffic lane with up to 50 jet skis and fifty-seven 30-foot and 40-foot boats, plus visitors. This is far too much congestion for safety, much less enjoyment in the manner rightfully expected, given the physical limitations of the existing cove dimensions.

Response: In the EA, we address effects on boating navigation and safety. The diagram provided by the applicant indicates a distance of 150 feet between the docks allowing for ingress and egress. Pursuant to Shangri-La Marina Group, LLC's May 1, 2007 filing, the new cove area would be widened to a maximum of 350 feet. Based on the proposed dock design (docks 40 feet in length maximum with an additional 30 feet to reflect length added by the 6 foot headpier and walkway), this width would provide sufficient area to

accommodate the dock while adhering to the one-third cove rule and open water requirement for Davis Cove.

Comment: Shangri-La Marina Group, LLC suggests that the recommendations of both wildlife resource agencies, and all committees of the draft SMP, which include representatives of ODEQ, ODWC, FWS, engineers, physicians, realtors, and B.A.S.S. Federation, are all to be discounted in favor of no testing for metals, with the justification that no metals have been found in the cove. However, testing has never even been administered in the cove, which is part of a lake where high concentrations have repeatedly been found.

Response: In the EA, we address effects on environmental resources related to the possible heavy metals and pesticide presence in the two ponds. We also recommend that sediments from the ponds be screened prior to dredging with adequate testing with composite core samples from the ponds to determine the presence of heavy metals.

Comment: The Applicant can provide no proof that the Commission does not understand importance of Davis Cove to applicant. Could it simply be that the Commission staff will not consider the project as an “Eminent Domain” proceeding? It is not such a proceeding and the desire of the applicant to circumvent the proper and market-driven (though costly) process of shoreline property acquisition is obvious and contemptible.

Response: Comment noted.

Comment: The Association asks “is it even relevant for the Staff to inquire of the budget and projections in a fully private development in which the applicant has steadfastly refused to link the shoreline management permits to the completion (or even the commencement) of the much-hyped private shoreline development, located well outside of the project boundary?”

Response: Comment noted. Policy issues will be addressed in the Commission’s order.

Comment: The Association states that the Applicant is totally incorrect in stating that protestors in front of the GRDA Board based their protests on property values. Most protests were about safety, property rights, encroachment, lack of proper notice, no ownership of land, unprecedented gift of 2,270 feet of shoreline use without a lease, and unprecedented waiver of multiple commercial permit rules including the \$140,000 permit application fee.

Response: Comment noted and the environmental issues have been dealt with in this EA. Policy issues will be addressed in the Commission’s order.

Comment: The Association states that around the lake, the retaining walls on all the

adjacent ponds (none of which contend with boat/wave action) are in stark opposition to the statements of the Applicant that no permit under section 404 of the Clean Water Act will be needed and no retaining walls will be built.

Response: By letter dated April 18, 2006, the Corps recommends a silt fence be placed at elevation 756.00 feet above mean sea level and that it remain in place as a barrier for the duration of the construction of the project. The Corps also recommends that any damage observed to the silt fence be repaired within 24 hours. By letter dated March 6, 2007, the Corps states that the only way the dredging component of the proposal can be accomplished without need for prior authorization under section 404 of the Clean Water Act is through the implementation of a one-step excavation and removal method, whereby excavated material is placed in a truck bed and hauled to an approved disposal site. The Corps states they will consider the property above elevation 757.0 an approved disposal site provided the site does not contain wetlands and the dredged spoil is properly controlled with staked-in-place straw bales, siltation fence, or other appropriate means of containment. By letter dated June 11, 2007, the Applicant states they will implement the one-step excavation and removal method in Davis Cove.

Comment: The Association states that the statement by the applicant “Unreasonable expectations of local landowners” is a clear snap-shot of the attitude that underwrites this application. The Association further questions “is it unreasonable for a shoreline owner, who selects a quiet and safe cove, and then further selects the dead-end, dry-land back of the cove to further provide safety from boat traffic for his children/grandchildren? This is not unreasonable.” “I personally (Mike Brady author of the Duke Creek Homeowners Association letter dated May 1, 2007) purchased a parcel of land on South Grand Lake 18 years ago, with the exact same criteria and features. Is it “unreasonable” to expect the dry land with no lake access at your back to remain dry land with no lake access? I think it is quite reasonable. This cove has had the current footprints for 30+ years. This is not a simple case of market-driven development. The applicant has made no offers to purchase the existing shoreline of Davis Cove. Instead, he has energized the imagination of a Licensee hungry for a feather in their cap with an “Eminent Domain” proceeding, for which there is no justification no promise to complete.”

Response: Comment noted

Paul and Laurie Ross

Comment: Paul and Laurie Ross state the Commission is already aware of the damage this will do to Davis Cove; aquatically, environmentally, traffic related, not to mention safety issues and personal investment that the homeowners of Davis Cove have within Grand Lake. The responses written by these law firms are stating the changes in Davis Cove will not adversely affect us. These changes will greatly affect all homeowners in

this cove in a negative way!

Response: These issues have been addressed in the EA.

Comment: Paul and Laurie Ross stat there is no way this project will be in compliance with existing GRDA's rules, Draft shoreline management plan, and FERC's guidelines without making improper allowances for this politically connected investment group. As a government body, protecting and overseeing the lake for all, we hope you, unlike those pursuing this venture, will govern in a clear and concise manner.

Response: Comment noted.

Comment: Regarding the traffic count supposedly conducted on Memorial weekend –we were at our lake house and did not see anyone at the mouth of Davis Cove counting boats. I highly doubt that on a major holiday weekend, GRDA would have the time or staff to conduct this count when safety and patrolling the lake would be a much higher priority. Regardless, whether the count occurred, we can confirm that the traffic count is low in Davis Cove, which is why we bought there. During these counts, do they take into consideration the weather (not as busy on rainy days) or if fishing tournaments are going on? During these tournaments, the traffic was much higher because the fishermen seem to like Davis Cove.

Response: Boating traffic and navigation related issues have been addressed in the EA.

Comment: The recent real estate transaction mentioned in the response leaves out pertinent information like Pete Boylan, with Shangri-La Marina Group, LLC, we believe, was the top bidder. As of this letter, the closing of that sale has not occurred and that price cannot be used as a comp. I question his motives on why he is attempting to purchase that property in Davis Cove?

Response: Comment noted.

Comment: Concerning the frequent use of the words 'excavating' vs. dredging – the law firms stated no dredging will go on, yet GRDA has used the words dredging in their last Board meeting. Dredging requires permission from land owners which will not consent to; therefore they can call it excavating and get away with it? Even with the high water due to rains we've recently had, the depth near the dike is still extremely shallow. It would definitely require dredging.

Response: Comment noted.

Comment: We question the labeling of residential dock usage instead of the original use which was for commercial. They state the cove will be used for golf traffic by boat,

which would not be residential. The amount of docks they are requesting is way beyond residential use.

Response: Comment noted.

Comment: It has come to our attention as the summer has begun that we are finding more owners in Davis Cove that we were not able to reach during winter months, that are shocked that this is even being attempted by GRDA and Shangri-La Marina Group, LLC.

Response: The Commission issued its Draft EA for the proposed non-project use of project lands application on April 2, 2007. The Commission requested comments be filed by May 1, 2007.

Comment: We will continue to question what they consider legal property lines regarding the dike and our home.

Response: Comment noted.

Donald D. Dill

Comment: There is very small circulation of water in Davis Cove. For example, there hasn't been any water flow from the ponds this year until the month of May. I retired here in 1981 and my dock has been completely on the ground twice, which further indicates how shallow this cove is. If this project is approved, on extremely dry years, the boats in the new area would be marooned.

Response: Issues related to water quality are addressed in the EA.

Comment: “The 340 homes in this area is very doubtful and most of these homes are not on water frontage and do not have a boat, and even some of the homes on the water front does not have a dock or a boat.”

Response: Issues related to land use are addressed in the EA.

Comment: “Davis cove where they propose their new marina is also on their golf course, but they don't mention that their other golf course is only approximately 200 yards from the end of the island, where they propose the other docks, so they do have an alternative.”

Response: The Staff Identified Alternative is described in Section 5.3 of the EA.