FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, DC 20426 January 12, 2018

OFFICE OF ENERGY PROJECTS

Project No. 1494-438 – Oklahoma Pensacola Hydroelectric Project Grand River Dam Authority

Subject: Scoping Document 1 for the Pensacola Hydroelectric Project

To the Parties Addressed:

Federal Energy Regulatory Commission (Commission) staff are currently reviewing the Pre-Application Document (PAD) filed on February 1, 2017, by Grand River Dam Authority (GRDA) for relicensing the Pensacola Hydroelectric Project No. 1494 (Pensacola Project). The project is located on the Grand (Neosho) River in Craig, Delaware, Mayes, and Ottawa Counties, Oklahoma. No federal lands have been identified within the project boundary.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an environmental document (environmental analysis or environmental impact statement), which will be used by the Commission to determine whether, and under what conditions, to issue a new license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed and that the NEPA document is thorough and balanced.

We invite your participation in the scoping process and are circulating the attached Scoping Document 1 (SD1) to provide you with information on the Pensacola Project. We are soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the NEPA document. We are also requesting that you identify any studies that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the NEPA document for the project.

We will hold four scoping meetings for the Pensacola Project to receive input on the scope of the NEPA document. The daytime meetings, focused on resource agencies', tribes', and non-governmental organizations' (NGOs) concerns, will begin at the times and locations listed below. The evening meetings, also listed below, are primarily for the public, but the public, agencies, Indian tribes and NGOs may attend either the daytime or evening scoping meetings. We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or more of these meetings. An environmental site review will be held on Wednesday, February 7, 2018 at 12:30 p.m. in Langley, Oklahoma. Further information on the scoping meeting and environmental site review is available in the enclosed SD1.

Scoping Meeting Date	Time	Location
Wednesday, February 7, 2018	9 a.m. to 12 p.m.	Langley, OK
Wednesday, February 7, 2018	6 p.m. to 9 p.m.	Grove, OK
Thursday, February 8, 2018	6 p.m. to 9 p.m.	Miami, OK
Friday, February 9, 2018	9 a.m. to 12 p.m.	Tulsa, OK

SD1 is being distributed to GRDA's distribution list and the Commission's official mailing list for the project (see section 10.0 of the attached SD1). If you wish to be added to or removed from the Commission's official mailing list, please send your request by email to FERCOnlineSupport@ferc.gov or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written or emailed requests must specify your wish to be removed from or added to the mailing list and must clearly identify the following on the first page: **Pensacola Hydroelectric Project P-1494-438**.

Please review the SD1 and, if you wish to provide comments, follow the instructions in section 6.0, *Request for Information and Studies*. If you have any questions about SD1, the scoping process, or how Commission staff will develop the NEPA document for this project, please contact Rachel McNamara at (202) 502-8340 or via email at: Rachel.McNamara@ferc.gov. Additional information about the Commission's licensing process and the Pensacola Project may be obtained from our website, www.ferc.gov or GRDA's website, http://www.grda.com/pensacola-hydroelectric-project-relicensing/. The deadline for filing comments is March 13, 2018. The commission strongly encourages electronic filings.

Enclosure: Scoping Document 1

SCOPING DOCUMENT 1

PENSACOLA HYDROELECTRIC PROJECT (FERC NO. 1494-438)

OKLAHOMA



Federal Energy Regulatory Commission Office of Energy Projects Division of Hydropower Licensing Washington, DC

January 2018

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APPENDIX A—STUDY PLAN CRITERIA APPENDIX B—PROCESS PLAN AND SCHEDULE

SCOPING DOCUMENT 1

Pensacola Hydroelectric Project No. 1494-438

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA), may issue new licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On February 1, 2017, Grand River Dam Authority (GRDA), licensee for the existing Pensacola Hydroelectric Project No. 1494 (Pensacola Project),² filed a Pre-Application Document (PAD) and Notice of Intent (NOI) to file an application for new license with the Commission. The project is located on the Grand (Neosho) River in Craig, Delaware, Mayes, and Ottawa Counties, Oklahoma (figure 1). No federal lands have been identified within the project boundary.³

As currently licensed, GRDA operates the project for multiple purposes, including hydropower generation, water supply, recreation, and wildlife enhancement. For purposes of flood control in the Grand River Basin, the U.S. Army Corps of Engineers (Corps) directs water releases from the Pensacola Dam for flood control as defined in the guiding protocol of a 1992 Letter of Understanding and Water Control Agreement between the Corps and GRDA.

The principle project works consist of a dam with a gated spillway, an auxiliary spillway, reservoir (Grand Lake), a powerhouse containing six turbine/generator units with a total installed capacity of 120 megawatts (MW), a tailrace, a spillway channel, an electrical substation, and transmission line. The average annual generation of the project from 2011 through 2015 was 343,113 megawatt-hours (MWh). A detailed description of

¹ 16 U.S.C. § 791(a)-825(r).

² The current license for the Pensacola Project was issued with an effective date of April 1, 1992 and expires on March 31, 2022.

³ On August 14, 2017, the Bureau of Indian Affairs (BIA), Eastern Oklahoma Regional Office filed a letter noting that several interested Indian tribes contend that contrary to the Commission's previous statements that the project does not occupy federal land, the project has caused backwater flooding of trust or restricted lands under BIA's jurisdiction. However, BIA states that it currently lacks sufficient information to make a definitive conclusion one way or the other.

the project is provided in section 3.0, *Proposed Action and Alternatives*.

At this time, GRDA proposes no changes to the project's operation or facilities, although during relicensing, GRDA proposes to investigate whether any changes to the project's seasonal rule curve, equipment replacements, or modernization activities or general operational or facility efficiency improvements are warranted.

The National Environmental Policy Act (NEPA) of 1969,⁴ the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Pensacola Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. We intend to prepare either an environmental assessment (EA) or environmental impact statement (EIS) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the licensee's proposed action and alternatives. Preparation of the NEPA document will be supported by this scoping process to ensure identification and analysis of all pertinent issues.

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⁴ National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2012).

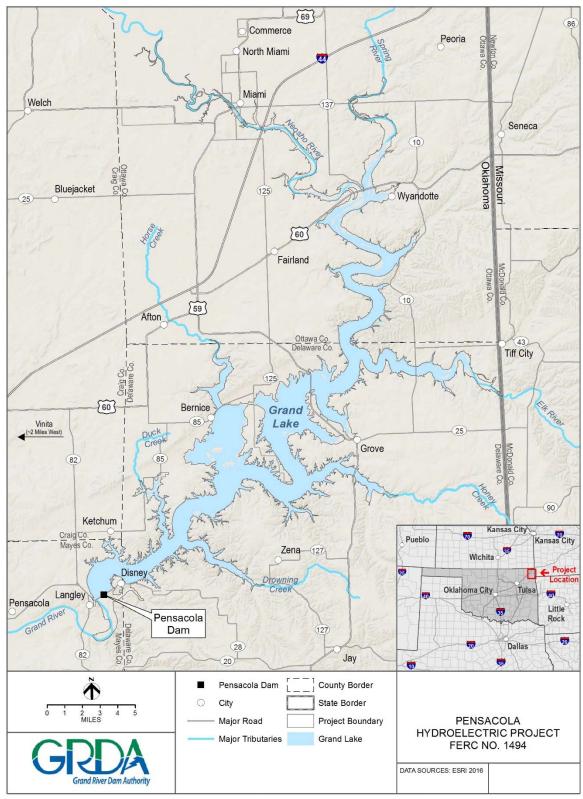


Figure 1. Project Location Map (Source: PAD)

2.0 SCOPING

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the NEPA document and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the NEPA document; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues and proposed studies; (4) a request for comments and information; (5) a proposed outline for the environmental document; and (6) a preliminary list of comprehensive plans that are applicable to the project.

2.1 PURPOSES OF SCOPING

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. In general, scoping should be conducted during the early planning stages of a project. The purposes of the scoping process are as follows:

- invite the participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the NEPA document;
- identify how the project would or would not contribute to cumulative effects;
- identify reasonable alternatives to the proposed action that should be evaluated in the NEPA document:
- solicit, from participants, available information on the resources at issue, including existing information and study needs; and
- determine whether there are resource areas and/or potential issues that do not require a detailed analysis during review of the project.

2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW

During preparation of the NEPA document, there will be several opportunities for the resource agencies, Indian tribes, NGOs, and the public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding the scope of issues and analysis for the EIS;
- in response to the Commission's notice that the project is ready for environmental analysis; and
- after issuance of the draft NEPA document.

In addition to written comments solicited by this SD1, we will hold four public scoping meetings in the vicinity of the project. The two daytime meetings will focus on concerns of the resource agencies, NGOs, and Indian tribes, and the two evening meetings will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or more of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the environmental document. All interested parties are also invited to participate in the environmental site review. The times and locations of the meetings and environmental site review are as follows:

<u>Daytime Scoping Meeting – Langley, Oklahoma</u>

Date & Time: Wednesday, February 7, 2018 at 9 a.m. Location: GRDA Ecosystems and Education Center

420 E. Highway 28

Langley, Oklahoma 74350

(918) 256-0723

For a map and directions to the GRDA Ecosystem and Education Center, please visit: https://goo.gl/maps/hTdFWHkDoS82.

Evening Scoping Meeting – Grove, Oklahoma

Date & Time: Wednesday, February 7, 2018 at 6 p.m.

Location: Grove City Hall

104 W. 3rd Street

Grove, Oklahoma 74344

(918) 786-6107

For a map and directions to Grove City Hall, please visit: https://goo.gl/maps/UExixtC3ezK2.

Evening Scoping Meeting – Miami, Oklahoma

Date & Time: Thursday, February 8, 2018 at 6:00 p.m. Location: Northeastern Oklahoma A&M College

Fine Arts Center Performance Hall

200 I St., NE

Miami, Oklahoma 74354

(918) 540-6203

For a campus map, including the location of the Fine Arts Center and Parking, please visit: http://www.neo.edu/wp-content/uploads/2017/03/Campus-Directory-Map-2017-03.02.17.pdf.

Daytime Scoping Meeting – Tulsa, Oklahoma

Date & Time: Friday, February 9, 2018 at 9 a.m.

Location: GRDA Engineering and Technology Center

9933 E. 16th Street Tulsa, Oklahoma (918) 256-5545

Please RSVP to Jacklyn Jaggars, (918) 256-0723 or <u>jjaggars@grda.com</u>, on or before **January 31, 2018** if you plan to attend the scoping meeting in Tulsa. A map of the scoping venue can be found here: http://www.grda.com/electric/facilities/engineering-technology-center.

Environmental Site Review

GRDA and Commission staff will conduct an Environmental Site Review (site visit) of the project on Wednesday, February 7, 2018, starting at 12:30 p.m., and ending at or about 4:30 p.m. All participants should meet at the GRDA Ecosystems and Education Center located at 420 E. Highway 28, Langley, Oklahoma 74350. Participants must notify Jacklyn Jaggars at (918) 256-0723 or jjaggars@grda.com, on or before January 31, 2018, if they plan to attend the environmental site review.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the project. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0. These meetings are posted on the Commission's calendar located on the

internet at <u>www.ferc.gov/EventCalendar/EventsList.aspx</u>, along with other related information.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Pensacola Project. It is advised that participants review the PAD in preparation for the scoping meetings. Copies of the PAD are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (www.ferc.gov), using the "eLibrary" link. Enter the docket number, P-1494, to access the documents. For assistance, contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. A copy of the PAD can be inspected and reproduced during regular business hours at the following address: GRDA Ecosystems and Education Center, 420 E. Highway 28, Langley, Oklahoma 74350.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made as to the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the NEPA document.

If we receive no substantive comments on SD1, then we will not prepare a Scoping Document 2 (SD2). Otherwise, we will issue SD2 to address any substantive comments received. The SD2 will be issued for informational purposes only; no response will be required. The NEPA document will address recommendations and input received during the scoping process.

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Pensacola Project would continue to operate as required by the current project license (i.e., there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures would be implemented. This alternative is the baseline environmental conditions for comparison with other alternatives.

3.1.1 Existing Project Facilities

The existing Pensacola Project includes: (1) a reinforced-concrete dam consisting of a 4,284-foot-long, multiple arch section, an 861-foot-long spillway containing

21 Tainter or radial gates, a 451-foot-long, non-overflow gravity section, and two non-overflow abutments having an overall length of 5,950 feet and a maximum height of 147 feet; (2) two auxiliary spillways, which are located about 1 mile east of the main dam, having a total length of 886 feet and containing 21 Tainter gates; (3) a reservoir—known as Grand Lake O' the Cherokees (Grand Lake)—with a surface area of 46,500 acres and a storage capacity of 1,680,000 acre-feet at a water surface elevation of 745 feet Pensacola Datum; (4) six 15-foot-diameter and one 3-foot-diameter steel penstocks supplying flow to six turbine-generators of 17,446-kilowatt capacity each and one turbine-generator of 500-kilowatt capacity located in a powerhouse immediately downstream from the dam; (5) an approximate 300-foot-wide tailrace and an 850-foot-wide spillway channel, both about 1.5 miles long; (6) six 450 to 650-foot-long, 13.8-kV generator leads connecting the turbine-generator units in the powerhouse to the project switching station; and (7) appurtenant facilities.

3.1.2 Existing Project Operation

As licensed, the project serves multiple purposes, including hydropower generation, water supply, public recreation, and wildlife enhancement. To balance the multiple uses of the reservoir, GRDA operates the project to target reservoir surface elevations known as the project's rule curve. The Commission approved a revised rule curve on August 15, 2017.⁷ Table 1 presents the target elevations during the year per the revised rule curve.

⁵ Pensacola Datum is 1.07 feet higher than National Geodetic Vertical Datum (NGVD), which is a national standard for measuring elevations above sea level.

⁶ GRDA updated the units between 1999 and 2003. This number represents the current Commission-authorized installed capacity of the upgraded units.

⁷ 160 FERC ¶ 61,001 (2017).

Table 1. Target Elevations for the Pensacola Project

Period	Reservoir Elevation (feet)
January 1 through April 30	Maintain elevation at 742
May 1 through May 31	Raise elevation from 742 to 744
June 1 through July 31	Maintain elevation at 744
August 1 through August 15	Lower elevation from 744 to 743
August 16 through September 15	Maintain elevation at 743
September 16 through September 30	Lower elevation from 743 to 742
October 1 through April 30	Maintain elevation at 742

For purposes of flood control in the Grand River Basin, the Corps, Tulsa District, manages an expansive system of 11 large reservoirs, of which Grand Lake is one located in the middle of the flood control system. Upstream of the Pensacola Project, the Corps manages three federal reservoirs—Marion, Council Grove, and John Redmond—with a combined storage capacity of approximately 465,000 acre-feet. Downstream of Grand Lake and GRDA's Lake Hudson (Markham Ferry Hydroelectric FERC Project No. 2183), the Corps manages Fort Gibson Reservoir (919,000 acre-feet) on the Grand River prior to its confluence with the Arkansas River.

The flood control pool associated with Grand Lake consists of the storage volume available between the target pool elevation, which varies seasonally between 741 and 744 feet, and the upper elevation of 755 feet. As part of its flood control operations, the Corps holds flowage easements between the elevations of 755 and 760 feet. These easements are in the process of being transferred to GRDA. When reservoir elevations are either within the flood control pool (i.e., above elevation 745 feet) or projected to rise into the flood control pool, the Corps directs the water releases from the dam under the terms of section 7 of the Flood Control Act of 1944, as defined in the guiding protocol of the 1992 Letter of Understanding and Water Control Agreement between GRDA and the Corps. When directed by the Corps to make lake releases, GRDA first discharges as much water as possible through the project's hydropower units. Once the project has reached the powerhouse's maximum hydraulic capacity, the Corps may direct GRDA to

⁸ Section 1321 of the Water Infrastructure Improvements for the Nation Act, Pub. L. No. 114-322, 130 Stat. 1705 (2016).

⁹ Pub. L. No. 78-534, 58 Stat. 890, 33 U.S.C. § 709 (2012).

open one or more spillway gates if the conservation pool is still rising, but typically not unless the water surface elevation exceeds or is projected to exceed 745 feet. The Corps will then determine whether additional gates need to be opened. The target discharge rate at any time is based on the current Grand Lake water surface elevation, the current estimated Grand Lake inflow rate, and the amount of projected flooding downstream in the Grand or Arkansas River Basins.

The operating goal of the project is to use any water in the project's flood control pool for power generation, up to the maximum hydraulic capacity of the turbines, whenever possible. Typically, GRDA does not operate the project's hydropower units when the Grand Lake water surface elevation is below target.

GRDA also manages environmental resources at the project pursuant to plans for: dissolved oxygen monitoring and enhancement, gray bat compliance, fish and waterfowl habitat management, vegetation management, recreation management, and shoreline management.

3.2 LICENSEE'S PROPOSALS

3.2.1 Proposed Project Facilities and Operation

GRDA proposes to continue to operate and maintain the project as required by its existing license. GRDA does not propose to construct any new project facilities or to modify any existing project facilities at this time. GRDA proposes to use pre-filing ILP to evaluate the need for modifications to project facilities or operations.

3.2.2 Proposed Environmental Measures

GRDA is currently proposing to continue operating the project with the environmental protection, mitigation, and enhancement (PM&E) measures described in the following section. The potential need for additional PM&E measures will be evaluated during the relicensing process.

Geological and Soil Resources

- Continue to implement the Shoreline Management Plan to control erosion and sedimentation within the project boundary.
- Continue to implement the Vegetation Management Plan to control erosion and sedimentation within the project boundary.

Water Resources

• Continue to operate the project for maintenance of water supply, to the extent practicable.

Fish and Aquatic Resources

• Continue to implement the existing Fish and Waterfowl Habitat Management Plan.

Terrestrial Resources

- Continue to implement the Vegetation Management Plan to preserve and protect botanical resources in the project area.
- Continue to implement the Shoreline Management Plan to preserve and protect terrestrial resources in the project area.
- Continue to implement the existing Fish and Waterfowl Habitat Management Plan.

Threatened and Endangered Species

• Continue to implement the Gray Bat Compliance Plan and cave monitoring to protect the endangered gray bat.

Recreation Resources

• Continue to implement the Recreation Management Plan for management of the project's five formal recreation sites and informal public access at the project.

Land Use

• Continue to implement the project's Shoreline Management Plan to manage land use and protect resources within the project boundary.

3.3 DAM SAFETY

It is important to note that dam safety constraints may exist and should be taken into consideration in the development of proposals and alternatives considered in the pending proceeding. For example, proposed modifications to the dam structure, such as the addition of flashboards or fish passage facilities, could impact the integrity of the dam structure. As the proposal and alternatives are developed, the applicant must evaluate the effects and ensure that the project would meet the Commission's dam safety criteria found in Part 12 of the Commission's regulations and the Engineering Guidelines (http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide.asp).

3.4 ALTERNATIVES TO THE PROPOSED ACTION

Commission staff will consider and assess alternative recommendations for operational or facility modifications, as well as PM&E measures identified by the

Commission, the agencies, Indian tribes, NGOs, and the public.

3.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

At present, we propose to eliminate the following alternatives from detailed study in the NEPA document.

3.5.1 Federal Government Takeover

In accordance with section 16.14 of the Commission's regulations, a federal department or agency may file a recommendation that the United States exercise its right to take over a hydroelectric power project with a license that is subject to sections 14 and 15 of the FPA.¹⁰ We do not consider federal takeover to be a reasonable alternative. Federal takeover of the project would require congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed interest in operating the project.

3.5.2 Non-power License

A non-power license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this time, no governmental agency has suggested a willingness or ability to take over the project. No party has sought a non-power license, and we have no basis for concluding that the project should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

3.5.3 Project Decommissioning

Decommissioning of the project could be accomplished with or without dam removal. Either alternative would require denying the relicense application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and/or removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the

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¹⁰ 16 U.S.C. §§ 791(a)-825(r).

region. With decommissioning, the project would no longer be authorized to generate power.

No party has suggested project decommissioning would be appropriate in this case, and we have no basis for recommending it. Thus, we do not consider project decommissioning a reasonable alternative to relicensing the project with appropriate environmental measures.

4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES

4.1 CUMULATIVE EFFECTS

According to the Council on Environmental Quality's regulations for implementing NEPA (40 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

4.1.1 Resources that could be Cumulatively Affected

Based on information in the PAD for the Pensacola Project, and preliminary staff analysis, we have identified geology and soils, water quantity, land use, and cultural resources as resources that could be cumulatively affected by the proposed continued operation and maintenance of the Pensacola Project in combination with other hydroelectric projects and other activities in the Grand River Basin.

4.1.2 Geographic Scope

Our geographic scope of analysis for cumulatively affected resources is defined by the physical limits or boundaries of: (1) the proposed action's effect on the resources, and (2) contributing effects from other hydropower and non-hydropower activities within the Grand River Basin. Because the proposed actions would affect the resources differently, the geographic scope for each resource may vary.

We have tentatively identified the geographic scope for geology and soils to include the Grand River Basin, which extends approximately 66 miles upstream from the Pensacola Dam, to the Markham Ferry Project, located approximately 30 river miles downstream of the Pensacola Project. We chose this geographic scope because the collective operation and maintenance of the project, in combination with other developmental and non-developmental uses of the Grand River Basin, may cumulatively

affect geology and soil resources in the Grand River.

We have tentatively identified the geographic scope for water quantity to include the system of 11 dams managed by the Corps for the purposes of flood control. This system extends upstream from the Pensacola Project, in include Marion, Council Grove, and John Redmond Reservoirs and downstream from Grand Lake to Fort Gibson Reservoir on the Grand River prior to its confluence with the Arkansas River. We have chosen this geographic scope of analysis because it includes the entirety of the Grand River Basin that is managed for flood control purposes. The Corps' flood control operations in the Basin have the potential to both directly and cumulatively affect water quantity at Grand Lake.

We have tentatively identified the geographic scope for land use and cultural resources as the Grand Lake Reservoir, to elevation 760, as well as any adjacent upland areas that are periodically inundated by Grand Lake. We have chosen this geographic scope for land use and cultural resources because existing operation and maintenance of the project, in combination with other developmental and non-developmental activities within the Grand River Basin, may cumulatively affect use of lands adjacent to the reservoir or cultural resources located on lands adjacent to the reservoir, including by flooding of adjacent lands.

4.1.3 Temporal Scope

The temporal scope of our cumulative effects analysis in the EIS will include a discussion of past, present, and reasonably foreseeable future actions and their effects on each resource that could be cumulatively affected. Based on the potential term of a new license, the temporal scope will look 30 to 50 years into the future, concentrating on the effect on the resources from reasonably foreseeable future actions. The historical discussion will, by necessity, be limited to the amount of available information for each resource. The quality and quantity of information, however, diminishes as we analyze resources further away in time from the present.

4.2 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the EIS. We identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the Pensacola Project. This list is not intended to be exhaustive or final, but contains the issues raised to date. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects.

4.2.1 Geology and Soil Resources

- Effects of project operation and maintenance on soil erosion and shoreline erosion.*
- Effects of project operations on sedimentation within the project boundary.*

4.3.2 Water Resources

- Effects of project operation for both power generation and flood control on water quantity, including its relationship to reservoir level, flooding upstream and downstream of the Pensacola Dam, and drought/low flow periods.*
- Effects of project operations on water quality, particularly on dissolved oxygen and temperature.

4.3.3 Fish and Aquatic Resources

- Effects of project operations (including fluctuations in water levels, and downstream releases) on aquatic habitat and resources in the project's vicinity (e.g., resident and migratory fish populations; fish spawning, rearing, feeding, and overwintering habitats; mussels and macroinvertebrate populations and habitat).
- Effects of entrainment on fish populations at the project.
- Effects of project operation and maintenance activities and project-related recreation on non-native invasive aquatic species, including zebra mussels (*Driessena polymorpha*) and Asian clams (*Corbicula fluminea*).

4.3.4 Terrestrial Resources

- Effects of the frequency, timing, amplitude, and duration of reservoir fluctuations and flow releases from the project on riparian, wetland, and littoral vegetation community types.
- Effects of project operation and maintenance activities (e.g., road and facility maintenance) and project-related recreation on wildlife and wildlife habitat.
- Effects of project operation and maintenance on avian species, including avian electrocution and collision with project generator leads.

• Effects of project operation and maintenance activities and project-related recreation on non-native invasive botanical and wildlife species.

4.3.5 Threatened and Endangered Species¹¹

- Effects of project operation and maintenance on federally listed endangered, threatened, and candidate fish and aquatic species including: Neosho madtom (*Noturus placidus*), Ozark cavefish (*Amblyopsis rosea*), Neosho mucket (*Lampsilis rafinesqueana*), rabbitsfoot mussel (*Quadrula cylindrica*), winged mapleleaf (*Quadrula fragosa*), and Arkansas darter (*Etheostoma cragini*).
- Effects of project fluctuations and flow releases from the project on federally listed endangered and threatened wildlife and plant species including: western prairie fringed orchid (*Planthera praeclara*), gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodali*), northern long-eared bat (*Myotis septentrionalis*), Ozark big-eared bat (*Corynorhinus townsendii ingens*), piping plover (*Charadrius melodus*), rufa red knot (*Calidris canutus rufa*), and American burying beetle (*Nicrophorus americanus*).

4.3.6 Recreation

- Whether existing recreation facilities and public access are adequate to meet current and future recreation demand.
- Effects of project operation (reservoir fluctuation) on access to existing recreation facilities.
- Adequacy of the existing Recreation Management Plan to manage development and use of the project's recreation facilities.

4.3.7 Land Use

• Adequacy of existing Shoreline Management Plan to control non-project use of project lands (e.g., permitting piers, boat docks, and other facilities).

¹¹ With the exception of the Arkansas darter and western prairie fringed orchid, all of the species listed in this section were included in the U.S. Fish and Wildlife Service's (FWS) official species list for the Pensacola Project generated on FWS's ECOS-IPaC website (https://ecos.fws.gov/ipac/) on January 10, 2018, and filed on January 11, 2018. The Arkansas darter and western prairie fringed orchid were identified by GRDA in its PAD.

- Adequacy of the existing Shoreline Management Plan to protect environmental and cultural resources at the project.
- Effects of project operations on adjacent tribal lands.*

4.3.8 Aesthetic Resources

• At this time we have not identified any aesthetic resource issues.

4.3.9 Socioeconomic Resources

• Effects of any proposed changes in project operation or maintenance on socioeconomic resources.

4.3.10 Cultural Resources

- Effects of the project operation and maintenance on historic and archeological resources that may be eligible for inclusion in the National Register of Historic Places.*
- Effects of project operation and maintenance on properties of traditional religious and cultural importance to Indian tribes.*

4.3.11 Developmental Resources

• Effects of potential operational changes on the energy and capacity benefits of the projects, and effects of protection, mitigation, and enhancement measures on the cost of project power.

5.0 PROPOSED STUDIES

Initial study proposals from GRDA are identified by resource area, below in Table 2, and in the PAD. Further studies may need to be added to this list based on comments provided to the Commission and the licensees from agencies, Indian tribes and interested parties during the study planning process.

Table 2. Initial Study Proposals by Project Applicant (Source: PAD)

Resource Area and Issue	GRDA's Proposed Study
Geologic and Soil Resources	Incorporate and supplement existing
	information into a comprehensive hydraulic
	model to evaluate issues of sedimentation
	in the flood inundation area.

Recreation Conduct a recreation facilities inventory

and use survey.

Cultural Resources Conduct a Phase 1 cultural resources

background study to determine locations within the project boundary that may experience project-related effects and to identify specific targeted areas for

additional investigation.

Developmental Resources Develop an operations model to describe

and assess the extent of any water storage and generation changes considered during

the relicensing process.

6.0 REQUEST FOR INFORMATION AND STUDIES

We are asking federal, state, and local resource agencies; Indian tribes; NGOs; and the public to forward to the Commission any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with relicensing the Pensacola Project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed relicensing of the Pensacola Project;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber

harvest activities, or fish management programs), along with any implementation schedules);

- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public;
- documentation showing why any resources should be excluded from further study or consideration; and
- study requests by federal and state agencies, local agencies, Indian tribes, NGOs, and the public that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the NEPA document for the project.

All requests for studies filed with the Commission must meet the criteria found in Appendix A, *Study Plan Criteria*.

The requested information, comments, and study requests should be submitted to the Commission no later than March 13, 2018. All filings must clearly identify the following on the first page: Pensacola Hydroelectric Project (P-1494-483). Scoping comments may be filed electronically via the Internet. See 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website http://www.ferc.gov/docs-filing/efiling.asp. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at http://www.ferc.gov/docs-filing/ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, please send a paper copy to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426.

Register online at http://www.ferc.gov/esubscription.asp to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov.

Any questions concerning the scoping meetings, site visit, or how to file written comments with the Commission should be directed to Rachel McNamara at (202) 502-8340 or Rachel.McNamara@ferc.gov. Additional information about the Commission's

licensing process and the Pensacola Project may be obtained from the Commission's website, www.ferc.gov.

7.0 PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a draft and final NEPA document. The draft NEPA document will be sent to all persons and entities on the Commission's service and mailing lists for the project. The NEPA document will include our recommendations for operating procedures, as well as PM&E measures that should be part of any license issued by the Commission. All recipients will then have 30 days to review the EA, or 60 days to review the EIS, and file written comments with the Commission. All comments on the draft NEPA document filed with the Commission will be considered in preparation of the final NEPA document.

The major milestones, including those for preparing the NEPA document, are as follows:

Major Milestone	Target Date
Scoping Meetings	February 2018
License Application Filed	March 2020
Ready for Environmental Analysis Notice Issued	May 2020
Deadline for Filing Comments, Recommendations, and	
Agency Terms and Conditions/Prescriptions	July 2020
Draft NEPA Document Issued	January 2021
Comments on Draft NEPA Document Due	February 2021
Deadline for Filing Modified Agency Recommendations	April 2021
Final NEPA Document Issued	July 2021

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for the licensee to respond to the Commission's request. A copy of the process plan, which has a complete list of the relicensing milestones for the Pensacola Project, including those for developing the license application, is attached as Appendix B to this SD1.

8.0 PROPOSED NEPA DOCUMENT OUTLINE

The preliminary outline for the Pensacola Project's NEPA document is as follows:

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9.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The staff has initially identified the plans listed below that may be relevant to the projects. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR 2.19 of the Commission's regulations. Please follow

the instructions for filing a plan at http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Pensacola Project.

- Department of the Army, Corps of Engineers. Little Rock District and Tulsa District. 1991. Arkansas River Basin, Arkansas and Oklahoma, feasibility report. Little Rock, Arkansas, and Tulsa, Oklahoma. May 1991.
- National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
- Oklahoma Department of Wildlife Conservation. U.S. Fish and Wildlife Service. 1985. Bottomland hardwoods of eastern Oklahoma. Oklahoma City, Oklahoma. December 1985.
- Oklahoma Department of Wildlife Conservation. U.S. Fish and Wildlife Service. 1989. Eastern Oklahoma wetlands plan: Lower Mississippi Valley joint venture North American waterfowl management plan. Oklahoma City, Oklahoma. August 1989.
- Oklahoma Water Resources Board. 1997. Update of the Oklahoma comprehensive water plan. Publication Number 139. Oklahoma City, Oklahoma. February 1997.
- Oklahoma Water Resources Board. 2002. Oklahoma's water quality standards and implementation of Oklahoma's water quality standards. Oklahoma Administrative Code, Title 785, Chapters 45 and 46 effective July 1, 2002. Oklahoma City, Oklahoma.
- Oklahoma Tourism & Recreation Department. 2001 Statewide Comprehensive Outdoor Recreation Plan (SCORP): The public recreation estate. Oklahoma City, Oklahoma.
- U.S. Fish and Wildlife Service. 1979. Unique wildlife ecosystems of Oklahoma. Department of the Interior, Albuquerque, New Mexico. May 18, 1979.
- U.S. Fish and Wildlife Service. 1985. Land protection plan for Texas/Oklahoma bottomland hardwoods and migratory waterfowl. Department of the Interior, Albuquerque, New Mexico. January 15, 1985.
- U.S. Fish and Wildlife Service. 1986. Whooping Crane Recovery Plan. Department of the Interior, Albuquerque, New Mexico. December 23, 1986.

U.S. Fish and Wildlife Service. 1989. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.

10.0 MAILING LIST

The list below is the Commission's official mailing list for the Pensacola Project. If you want to receive future mailings for the Pensacola Project and are not included in the list below, please send your request by email to efiling@ferc.gov or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the mailing list must clearly identify the following on the first page: **Pensacola Hydroelectric Project No. 1494-438**. You may use the same method if requesting removal from the mailing list below.

Register online at https://www.ferc.gov/docs-filing/esubscription.asp to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1 866-208-3676, or for TTY, (202) 502-8659.

Official Mailing List for the Pensacola Project

Milwaukee, WI 53202-4618

Director

Bureau of Indian Affairs

P.O. Box 368

P.O. Box 8002

Anadarko, OK 73005-0368

Muscogee, OK 74401-6201

Bureau of Land Management
P.O. Box 27115
Santa Fe, NM 87502-0115
Field Manager
Bureau of Land Management
626 E. Wisconsin Ave., Ste. 200

Bureau of Reclamation
P.O. Box 36900
Department of the Interior
Billings, MT 59107-0600
Portland, OR 97213

Alan Woodcock
Department of the Interior
Office of the Solicitor
Tulsa Field Office
7906 East 33rd Street
Tulsa, OK 74145

U.S. Army Corps of Engineers Southwestern Division 1114 Commerce St. Dallas, TX 75242-1024

Paul Mace, Chief U.S. Army Corps of Engineers Tulsa District 1645 S. 101st E. Ave. Tulsa, OK 74128 Scott A. Henderson U.S. Army Corps of Engineers Tulsa District 1645 S. 101st E. Ave. Tulsa, OK 74128

U.S. Environmental Protection Agency Compliance & Enforcement Division 1445 Ross Ave., Ste. 1200 Dallas, TX 75202-2750 Field Supervisor U.S. Fish and Wildlife Service 9014 E. 21st St. Tulsa, OK 74129

Regional Director U.S. Fish and Wildlife Service P.O. Box 1306 Albuquerque, NM 87102-1306 Senator James M. Inhofe U.S. Senate 205 Russell Senate Office Bldg. Washington, DC 20510

Director Office of the State Fire Marshall 2401 NW 23rd St., Ste. 4 Oklahoma City, OK 73107-2442 Robert Brooks Oklahoma Archaeological Survey 111 Chesapeake St., Bldg. 134 Norman, OK 73019-5110

Mike Thralls Oklahoma Conservation Commission 2800 N. Lincoln Blvd., Ste. 160 Oklahoma City, OK 73105 Jacqueline T. Miller Oklahoma Corporation Commission 2101 N. Lincoln Blvd. Oklahoma City, OK 73105

Director
Oklahoma Department of Wildlife
Conservation
P.O. Box 53465
Oklahoma City, OK 73152-3465

David Freede
Oklahoma Department of Environmental
Quality
P.O. Box 1677
Oklahoma City, OK 73101-1677

Attorney General Oklahoma Office of the Attorney General 313 NE 21st St. Oklahoma City, OK 73105-3207 Director
Oklahoma State Board of Agriculture
2800 N. Lincoln Blvd.
Oklahoma City, OK 73105-4201

Rocky McElvany Environmental Health Coordinator Oklahoma State Department of Health 1000 NE 10th St. Oklahoma City, OK 73117

Derek Smithee Chief, Water Quality Division Oklahoma Water Resources Board 3800 N. Classen Blvd. Oklahoma City, OK 73118-2862

Director University of Oklahoma 830 Van Vleet Oval, Rm. 163 Norman, OK 73019-0001

City Clerk City of Miami 129 5th Ave., NW Miami, OK 74354-4601

Mayes County Board of Commissioners 1 Court Pl., Ste. 140 Pryor, OK 74361

Town of Langley Langley, OK 74350 Melvena Heisch Oklahoma State Historic Preservation Office 800 Nazih Zuhdi Dr. Oklahoma City, OK 73105-7917

Ken Morris Oklahoma Water Resources Board 3800 N. Classen Blvd. Oklahoma City, OK 73118-2862

Town Clerk City of Grove 104 W. 3rd St. Grove, OK 74344-3201

Craig County, Oklahoma Vinita, OK 74301

Town of Ketchum Ketchum, OK 74349

Town of Wyandotte Wyandotte, OK 74370

Rodger Tucker, President Cobblestone Homes, Inc. P.O. Box 471040 Tulsa, OK 74147-1040

James Vaisle Davis Wright Tremaine, LLP 1919 Pennsylvania Ave., NW, Ste. 800 Washington, DC 20006

Gregg Ottinger, Attorney Duncan & Allen 1730 Rhode Island Ave., NW, Ste. 700 Washington, DC 20036-3115

J. Barry Epperson, Attorney Epperson and Johnson Williams Center Town One One West Third St., Suite 1010 Tulsa, OK 74103-4230

N. Larry Bork GSEP 515 S. Kansas Ave. Topeka, KS 66603

Phillip Mahowald
Jacobson, Magnuson, Anderson &
Halloran, P.C.
180 East 5th Street, Ste. 940
Saint Paul, MN 55101

Tim Toohey Pelican Landing, Inc. P.O. Box 658 Ketchum, OK 74349-0658

Charles Brown 30701 S. 600 Rd. Grove, OK 74344-7846 Carlos Gutierrez
Davis Wright Tremaine, LLP
1251 Avenue of the Americas, 21st Fl
New York, NY 10020

Mike A. Brady, President Dominion Equipment Co. P.O. Box 1276 Jenks, OK 74037-1276

Donald Clarke Duncan, Weinberg, Genzer & Pembroke 1615 M Street, NW, Ste. 800 Washington, DC 20036

Phil Frazier, Chairman Frazier, Smith & Phillips 1424 Terrace Dr. Tulsa, OK 74104-4626

Joseph Halloran
Jacobson, Magnuson, Anderson &
Halloran, P.C.
180 East 5th Street, Ste. 940
Saint Paul, MN 55101

Richard Lowry Logan & Lowry, LLP P.O. Box 558 Vinita, OK 74301-0558

Paul Flynn Wright & Talisman, PC 1200 G St., NW, Ste. 600 Washington, DC 20005

Alden Burege 3405 Arbor Rd. Joplin, MO 64804

Cheryl Beth Creekmore 9906 E. 55th Pl. Tulsa, OK 74146

Ed Goodwin 5014 E. 2nd St. Tulsa, OK 74112

Jot Hartley P.O. Box 553 Vinita, OK 74301-0553

Charles F. Kircher 30820 S. 596 Ln. Grove, OK 74344

Jack and Cheryl Lenhart 6257 S. Knoxville Ave. Tulsa, OK 74136-1430

Robert & Yana Livesay 58990 E. 290 Rd. Grove, OK 74344-7712

Jack E. Massey 501 Lakeshore Drive Vinita, OK 7430

Robert C. Rowe 59850 E. 304 Rd. Grove, OK 74344-7860

Jim Thompson 59697 E. 307 Ln. Grove, OK 74344 Bill & Netta Ferguson 3700 W 30th St., S Wichita, KS 67217-1018

Melody L. Harris P.O. Box 364 Afton, OK 74331-0364

Carolyn Lane Johnson 733 Laurel Street Edmonds, WA 98020

Janette O. Layne 450712 E. 317 Rd. Afton, OK 74331-5582

Jack Lenhart 4200 E. Skelly Drive #610 Tulsa, OK 74135

John Lopes P.O. Box 834 Joplin, MO 64807-0834

Lewis Perrault 35634 S. 4467 Rd. Vinita, OK 74301-6664

Lewis & Charlene Souders 245 Anchor Rd. Grove, OK 74344-5412

Peggy Ziegler 515 S. Kansas Avenue Topeka, KS 66603

APPENDIX A

STUDY PLAN CRITERIA 18 C.F.R. Section 5.9(b)

Any information or study request must contain the following:

- 1. Describe the goals and objectives of each study proposal and the information to be obtained;
- 2. If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
- 3. If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
- 4. Describe existing information concerning the subject of the study proposal, and the need for additional information;
- 5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
- 6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate filed season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge; and
- 7. Describe considerations of level of effort and cost, as applicable, and why proposed alternative studies would not be sufficient to meet the stated information needs.

APPENDIX B

REVISED PROCESS PLAN AND SCHEDULE FOR THE ILP RELICENSING OF THE PENSACOLA HYDROELECTRIC PROJECT

This process plan replaces the process plan issued August 24, 2017.

(shaded milestones are unnecessary if there are no study disputes; if due date falls on a weekend or holiday, the due date is the following business day)

18 C.F.R.	18 C.F.R. Lead		Timeframe	Deadline
§ 5.5(a)	GRDA	Filing of NOI and PAD	Actual filing date	2/1/2017
§ 5.7	FERC	Initial Tribal Consultation Meeting	Waived	12/13/2018
§5.8	FERC	FERC Issues Notice of Commencement of Proceeding and Scoping Document (SD1)	Waived	1/12/2018
§5.8 (b)(3)(viii)	FERC/ Stakeholders	Public Scoping Meetings and Environmental Site Review	Within 30 days of NOI and PAD notice and issuance of SD1	Week of 2/5/2018
§ 5.9	Stakeholders/ FERC	File Comments on PAD, SD1, and Study Requests	Within 60 days of NOI and PAD notice and issuance of SD1	3/13/2018
§5.10	FERC	FERC Issues Scoping Document 2 (SD2), if necessary	Within 45 days of deadline for filing comments on SD1	4/27/2018
§5.11(a)	GRDA	File Proposed Study Plans	Within 45 days of deadline for filing comments on SD1	4/27/2018
§5.11(e)	GRDA/ Stakeholders	Study Plan Meetings	Within 30 days of deadline for filing proposed Study Plans	Week of 5/21/2018
§5.12	Stakeholders	File Comments on Proposed Study Plan	Within 90 days after proposed study plan is filed	7/26/2018
§5.13(a)	GRDA	File Revised Study Plan	Within 30 days following the deadline for filing comments on proposed Study Plan	8/25/2018
§5.13(b)	Stakeholders	File Comments on Revised Study Plan (if necessary)	Within 15 days following Revised Study Plan	9/9/2018
§5.13(c)	FERC	FERC Issues Study Plan Determination	Within 30 days following Revised Study Plan	9/24/2018
§5.14(a)	Mandatory Conditioning Agencies	Notice of Formal Study Dispute (if necessary)	Within 20 days of Study Plan determination	10/14/2018

Project No. 1494-438

18 C.F.R.	Lead	Activity	Timeframe	Deadline
§5.14(l)	FERC	Study Dispute Determination	Within 70 days of notice of formal study dispute	12/23/2018
§5.15(a)	GRDA	Conduct First Season Field Studies	October 2018 – August 2019	
§5.15(c)(1)	GRDA	File Initial Study Reports	No later than one year from Study Plan approval	9/24/2019
§5.15(c)(2)	GRDA	Initial Study Results Meeting	Initial Study Results Meeting Within 15 days of Initial Study Report 10	
§5.15(c)(3)	GRDA	File Study Results Meeting Summary	Within 15 days of Study Results Meeting	10/27/2019
\$5.15(c)(4)	Stakeholders/ FERC	File Meeting Summary Disagreements/Modifications to Study/Requests for New Studies	Within 30 days of filing Meeting Summary	11/26/2019
§5.15(c)(5)	GRDA	File Responses to Disagreements/Modifications/ New Study Requests	Within 30 days of disputes	12/28/2019
§5.15(c)(6)	FERC	Resolution of Disagreements/ Study Plan Determination (if necessary)	Within 30 days of filing responses to disputes	1/27/2020
§5.15	GRDA	Conduct Second Season Field Studies	October 2019 – August 2020	
§5.15 (f)	GRDA	File Updated Study Reports	No later than two years from Study Plan approval	9/24/2020
§5.15(c)(2)	GRDA	Second Study Results Meeting	Within 15 days of Updated Study Report	10/11/2020
§5.15(c)(3)	GRDA	File Study Results Meeting Summary	With 15 days of Study Results Meeting	10/26/2020
§5.15(c)(4)	Stakeholders/ FERC	File Meeting Summary Disagreements/ Modifications to Study Requests/Requests for New Studies	Within 30 days of filing Meeting Summary	11/25/2020
§5.15(c)(5)	GRDA/ Stakeholders	File Responses to Disagreements/Modifications/ New Study Requests	Within 30 days of disputes	12/27/2020
§5.15(c)(6)	FERC	Resolution of Disagreements/ Study Plan Determination (if necessary)	Within 30 days of filing responses to disagreements	1/26/2021
§5.16(a)	GRDA	File Preliminary Licensing Proposal (or Draft License Application) with the FERC and distribute to Stakeholders	Not later than 150 days before final application is filed	11/3/2019*

18 C.F.R.	Lead	Activity	Timeframe	Deadline
§5.16 (e)	FERC / Stakeholders	Comments on GRDA Preliminary Licensing Proposal, Additional Information Request (if necessary)	Within 90 days of filing Preliminary Licensing Proposal (or Draft License Application)	2/3/2020*
§5.17 (a)	GRDA	License Application Filed		3/31/2020*

^{*} Because of the prior ILP abeyance, these deadlines fall before completion of the ILP pre-filing milestones required by section 5.15 of the Commission's regulations.