FEDERAL ENERGY REGULATORY COMMISSION
Washington, DC 20426
June 1, 2017

OFFICE OF ENERGY PROJECTS

Project No. 77-285 – California
Potter Valley Project
Pacific Gas & Electric Company

Subject: Scoping Document 1 for the Potter Valley Project

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document submitted by Pacific Gas & Electric Company (PG&E) for relicensing the 9.4-megawatt (MW) Potter Valley Project (FERC No. 77). The proposed project is located on the Eel and East Fork Russian Rivers, in Lake and Mendocino Counties, California. The project occupies lands owned by PG&E and National Forest System Lands administered by the United States Forest Service, Mendocino National Forest.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an Environmental Impact Statement (EIS), 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 EIS is thorough and balanced.

We invite your participation in the scoping process and are circulating the enclosed Scoping Document 1 (SD1) to provide you with information on the Potter Valley Project. We are also soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EIS. 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 EIS for the project.

We will hold two scoping meetings for the Potter Valley Project to receive input on the scope of the EIS. A daytime meeting will be held at 9:00 a.m. on Wednesday, June 28, 2017, at the Ukiah Valley Conference Center, 200 South School Street, Ukiah, California. An evening meeting will be held at 6:00 p.m. on the same day and at the same location. We will also visit the project facilities on Tuesday, June 27, 2017.

We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or both of these meetings. Further information on our scoping meetings and environmental site review is contained in the enclosed SD1.

SD1 is being distributed to both PG&E's Potter Valley Project's distribution list and the Commission's official mailing list (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 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 or emailed requests must specify your wish to be added to or removed from the mailing list and must clearly identify the following on the first page: **Potter Valley Project No. 77-285**.

Please review 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 EIS for this project, please contact John Mudre at (202) 502-8902 or john.mudre@ferc.gov. Additional information about the Commission's licensing process and the Potter Valley Project may be obtained from our website, www.ferc.gov, or PG&E's Potter Valley Project relicensing website at www.pge.com/pottervalley. The deadline for filing comments is **August 4, 2017**. The Commission strongly encourages electronic filings.

Enclosure: Scoping Document 1

cc: Mailing List
Public Files

SCOPING DOCUMENT 1

POTTER VALLEY PROJECT

CALIFORNIA

PROJECT NO. 77-285

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

June 2017

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1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),[1] may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On April 6, 2017, Pacific Gas & Electric Company (PG&E) filed a Pre-Application Document (PAD) and Notice of Intent to seek a new license for the Potter Valley Project (FERC Project No. 77).[2]

The Potter Valley Project (project) is located on the Eel and East Fork Russian Rivers, in Lake and Mendocino Counties, California. The project diverts water from the Eel River southward, through a series of tunnels, conduits and penstocks, to the project's powerhouse located in the headwaters of the Russian River Basin. Water not diverted remains in the Eel River, flowing northward about 150 miles to the Pacific Ocean near Fortuna. The project has a total installed capacity of 9.4 megawatts (MW) and, under current operation (since 2007), an average annual generation of 19,900 megawatt-hours (MWh).

Section 3.0 provides a detailed description of the project, and figure 1 shows the project location within the Eel and Russian River basins. The project occupies lands owned by PG&E and National Forest System Lands administered by the United States Forest Service, Mendocino National Forest.

The National Environmental Policy Act (NEPA) of 1969,[3] the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Potter Valley Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. At this time, we intend to prepare an 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 proposed action and alternatives. The EIS preparation will be supported by a scoping process to ensure identification and analysis of all pertinent issues.

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[1] 16 U.S.C. § 791(a)-825(r) (2012).

[2] The current license for the Potter Valley Project was issued with an effective date of October 1, 1983 and expires on April 14, 2022.

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

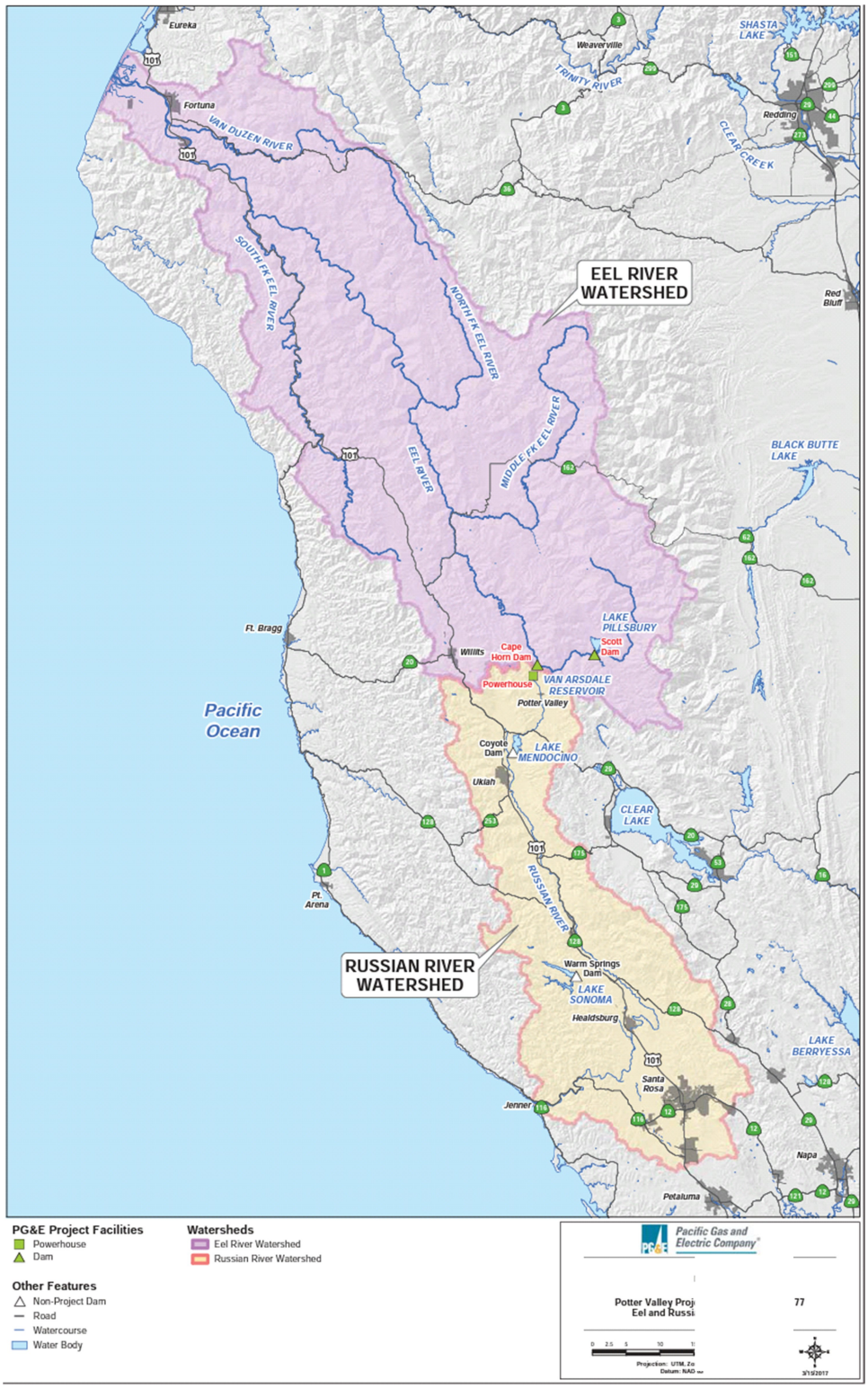

Figure 1. Location of the project (Source: PG&E).

2.0 SCOPING

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EIS 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 EIS; (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 EIS outline; 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 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 EIS;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EIS;
- solicit from participants available information on the resources at issue, including existing information and study needs; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW

During preparation of the EIS, 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 EIS when we solicit written comments on the draft EIS.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and an environmental site review in the vicinity of the project. A daytime meeting will focus on concerns of the resource agencies, NGOs, and Indian tribes, and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or both of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the EIS. 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:

Daytime Scoping Meeting

Date and Time:	June 28, 2017, at 9:00 a.m.
Location:	Ukiah Valley Conference Center 200 South School Street Ukiah, CA
Phone Number:	(707) 463-6700

Evening Scoping Meeting

Date and Time:	June 28, 2017, at 6:00 p.m.
Location:	Ukiah Valley Conference Center 200 South School Street Ukiah, CA
Phone Number:	(707) 463-6700

Environmental Site Review

Date and Time:	June 27, 2017, time to be determined
Location:	To be Determined
Phone Number:	(415) 973-7202

Please RSVP to Ms. Susan Kester of PG&E at S1KV@pge.com (preferably) or (415) 973-7202 **on or before June 13, 2017,** if you would like to attend the

environmental site review. Due to safety concerns, space limitations around project facilities, and uncertainty concerning the number of participants, details concerning time and assembly location are under development and will be distributed shortly after the RSVP deadline. An additional tour may be added on June 29, if warranted, to safely accommodate everyone who would like to participate. Individuals attending the tour must wear long pants, long sleeve shirts and sturdy, closed-toe shoes

The scoping meetings will be recorded by a court reporter, and all statements (oral 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, along with other related information, are posted on the Commission's calendar located on the internet at www.ferc.gov/EventCalendar/EventsList.aspx.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Potter Valley 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-77, 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 also can be obtained from PG&E's Potter Valley Project website (https://www.pge.com/pottervalley) or can be inspected and reproduced, by appointment, at the following address: 245 Market St, 1114B, San Francisco, CA 94105. The public may contact Ms. Susan Kester by telephone at (415) 973-7202 to make an appointment to review the information.

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 EIS.

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 EIS 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) PG&E's proposed action, and (3) alternatives to the proposed action.

3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Potter Valley 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. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.1.1 Existing Project Facilities

Dams

Scott Dam

Scott Dam is a concrete, gravity-type, ogee-shaped structure having a maximum height of 130 feet and a total length of 805 feet. The ogee crest, which is at an elevation of 1,818.3 feet msl[4] is surmounted by five radial gates, each 32 feet wide by 10 feet high, and 26 steel slide gates, each 10 feet high and varying in width from 7.5 feet to 10.08 feet. The gates are manually operated with the exception of Gate 13 which is automated. Storage releases are made through a 72-inch-diameter, riveted-steel outlet pipe passing through the dam at invert elevation 1,730.3 feet, which is controlled by a 42-inch Lauren-Johnson needle valve. The needle valve is remotely operated.

Cape Horn Dam

Cape Horn Dam is 520 feet long and consists of an earthfill section and a concrete, gravity overflow spillway section. The earthfill section on the right side of the dam is approximately 237 feet long and has a 10-foot-wide crest at elevation 1,519 feet. The maximum height of the embankment is roughly 60 feet at the concrete retaining wall on the left side of the embankment. The embankment is comprised of earthfill with a concrete corewall. The concrete, gravity overflow spillway section forms the left side of the dam and has a maximum height of 63 feet. The spillway crest is at elevation 1,490.3 feet and is 283 feet long.

[4] All elevations included in this document are presented in feet above mean sea level (msl).

There is a 5-foot-diameter outlet through the spillway structure which was abandoned in place in 1987 due to an accumulation of sediment preventing its operation, and the construction of a weir associated with fish ladder improvements that flooded the downstream side of the outlet. Currently, water passing downstream of the dam flows through the east and west release gates at the center of the dam, through the fish ladder on river left, or over the length of the spillway crest.

A pool-and-weir-type fish ladder provides fish passage over Cape Horn Dam allowing fish access to the Eel River and its tributaries between Cape Horn and Scott Dams. The fish ladder is 434 feet long and rises a vertical distance of 40 feet. It is comprised of 49 pools, each measuring 8 feet long, 4 to 10 feet wide, and 3 to 4 feet deep. The path of the ladder is roughly u-shaped, with the entrance located approximately 80 feet downstream from the toe of the dam and the exit at the west end of the dam crest. The ladder passes through the Van Arsdale Fisheries Station, operated by the California Department of Fish and Wildlife (CDFW). The station is currently used to enumerate migrating salmon and steelhead and collect fish tissue for genetic analysis. Downstream migrant fish screened at the Van Arsdale Intake, located approximately 400 feet upstream of Cape Horn Dam, are introduced into the fish ladder just upstream of the counting station. A corrugated pipe along the ladder provides alternative upstream passage for adult lamprey.

Reservoirs

Lake Pillsbury

Lake Pillsbury, formed by the construction of Scott Dam on the Eel River, has a surface area of approximately 2,275 acres at the normal maximum water surface elevation of 1,828.3 feet and a current storage capacity of 76,876 acre-feet (ac-ft). Due to concerns of bank instability in the reservoir and the potential for sloughing material to block the outlet needle valve or be released downstream creating high turbidity and streambed sedimentation, the reservoir is operated to maintain a minimum reservoir storage of at least 10,000 ac-ft, resulting in a normal usable storage of 66,876 ac-ft.

Van Arsdale Reservoir

Van Arsdale Reservoir was formed by the construction of Cape Horn Dam on the Eel River. The reservoir has a surface area of approximately 106 acres at the normal maximum water surface elevation of 1,494.3 feet. The gross storage capacity of Van Arsdale Reservoir was originally 1,457 ac-ft with a usable capacity of 1,140 ac-ft. Accumulation of sediment over time has resulted in significant loss of reservoir capacity. Based on the most recent bathymetric and topographic surveys conducted in 2002 and 2006, the current reservoir capacity is less than 390 ac-ft.

Diversion System

Van Arsdale Intake

Van Arsdale Intake diverts water upstream of Cape Horn Dam and conveys it to the Potter Valley Powerhouse, approximately 9,257 feet to the south. The intake structure, located on the southwest bank of Van Arsdale Reservoir, is approximately 400 feet upstream from Cape Horn Dam. At the entrance to the diversion tunnel, the intake consists of two fish screen bays, an inclined plane screen in each bay, an Archimedes screw pump, and a fish return channel.

The fish return channel leads to a secondary fish screen which reduces the fish return flow from 4 cubic feet per second (cfs) to 2 cfs. This reduced flow carries screened fish and debris through a series of fish return pipes to a half-round ogee spillway and a baffled flume, where it discharges into the fish ladder just upstream of CDFW's Van Arsdale Fisheries Station.

Each of the inclined plane fish screens is approximately 82 feet long and 8 feet wide, and is comprised of wedge wire screening material with 1/8-inch slotted openings. The screens are cleaned by an automated compressed air sparging system that blows debris off the screens from below. The debris is then carried by water flowing over the top of the screens to the fish bypass system. A series of flow and fish passage acceptance tests of the screens were conducted to determine if the screens satisfied specific and general guidelines that had been developed by PG&E, California Department of Fish and Game (CDFG) (now CDFW), National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). The results of the tests indicated that the screens met the majority of the acceptance criteria. Issues that were identified as needing attention to fully meet the acceptance criteria were later addressed.

The fish screens and fish return system remain in continuous operation from October through July, except during periods of storm runoff when flows are 7,000 cfs or greater, at which time diversion is ceased to avoid damage to the screens. During August and September, the fish screens and the return system may be taken out of service for maintenance as long as entrainment below the powerhouse is monitored 1 day (24-hour duration) per week when the diversion is unscreened to document the absence of fish. Typically, one screen is taken off-line to be cleaned at a time, allowing diversion to occur through the other screen, and thus avoiding fish entrainment. Each screen is designed to pass 240 cfs with an approach velocity of 0.4 foot per second (i.e., 600 square feet of screen). However, the screens have been derated to 50 percent capacity due to current mechanical limitations, and so only 240 cfs total can be diverted through the screens.

Tunnels/Conduits

A trans-basin diversion system comprised of tunnels, steel pipes, and wood stave conduits passes through two ridges transporting water from Van Arsdale Reservoir to Potter Valley Powerhouse. The first ridge is crossed by a 5,826-foot-long underground tunnel (Tunnel No. 1). The second ridge is crossed by an 807-foot-long underground tunnel (Tunnel No. 2). Tunnel No. 1 and Tunnel No. 2 are connected by an approximately 457-foot-long aboveground conduit which crosses the valley between the two ridges (Conduit No. 1). A second aboveground conduit section (Conduit No. 2), approximately 367 feet in length, connects the downstream end of Tunnel No. 2 to Penstock No. 1 (1,793 feet long) and Penstock No. 2 (1,812 feet long).

Penstocks and Penstock Bypass

Penstock No. 1

Penstock No. 1 is a 1,793-foot-long, riveted-steel pipe varying in diameter from 62 inches at the gate valve to 48 inches at the Potter Valley Powerhouse. Penstock No. 1 supplies water to Unit No. 1.

Penstock No. 2

Penstock No. 2 is a 1,812-foot-long, riveted-steel pipe varying in diameter from 62 inches at the gate valve to 48 inches at the Potter Valley Powerhouse. A 30-inch-diameter wye branch from Penstock No. 2 supplies water to Unit No. 3 and Unit No. 4.

Penstock Bypass Channel and Powerhouse Bypass System

A butterfly valve house is located at the junction of Tunnel No. 1 and Conduit No. 1. Beginning near the butterfly valve house and terminating in the discharge canal downstream of the powerhouse, a seasonal creek is used as a penstock bypass channel to maintain flows in the East Fork Russian River during powerhouse outages that include dewatering of the entire penstock system. The capacity of the penstock bypass channel is approximately 25 cfs.

PG&E constructed a powerhouse bypass system in November 2009 with a capacity of 140 cfs. This is a fully automated system that is used to maintain required flow releases through the powerhouse as measured at gage E-16. The powerhouse bypass system can only be used when the penstock is in service (the limited-capacity penstock bypass channel is still used when the penstock is taken out of service).

Powerhouse, Switchyard, and Tailrace

Potter Valley Powerhouse

The 9.4-MW Potter Valley Powerhouse has three generating units. Water surface at Van Arsdale Reservoir at spill crest elevation (1,490.3 feet), yields a static powerhouse head equal to 475.5 feet. The powerhouse is a steel-frame structure approximately 101 feet long by 53 feet wide.

The three generating units are Francis turbines and are further described below.

- Unit No. 1[5] is a 6,500-horsepower, single horizontal reaction turbine operating at 720 revolutions per minute (RPM) that is directly connected to a 4,400-kilowatt (kW) generator rated at 5,500 kilovolt-amperes (kVA).
- Unit 3 is a 4,000-horsepower, single horizontal reaction turbine operating at 450 RPM that is directly connected to a 2,559-kW generator rated at 3,187 kVA.
- Unit 4 is a 4,000-horsepower, single horizontal reaction turbine operating at 450 RPM that is directly connected to a 3,060-kW generator rated at 3,400 kVA.

Potter Valley Switchyard

The Potter Valley Switchyard, located adjacent to the powerhouse, contains a main transformer bank with a total capacity of 12,000 kVA and steps up the powerhouse output from 2.4 kilovolts (kV) to 60 kV. The bank consists of four 4,000-kVA, single-phase, 60-cycle, air-cooled, outdoor-type transformers with one used as a spare. One station service transformer bank provides station light and power to the powerhouse. Three transformer banks (one is a backup) and related facilities associated with PG&E's 12-kV distribution system, are non-project.[6]

Potter Valley Tailrace

The three generating units discharge water into the Potter Valley Powerhouse tailrace. The tailrace is comprised of three individual concrete channels which join together into a common channel approximately 60 feet downstream from the

[5] Original Units Nos. 1 and 2 were replaced in 1939 as Unit No. 1.

[6] Transmission lines are not part of the project. Power is fed directly to PG&E's interconnected transmission system which passes through the powerhouse switchyard.

powerhouse. This common channel continues another 25 feet to the 12-foot by 6-foot tailrace radial gate, and forms the head works for the Potter Valley Irrigation District (PVID) East and West Canals. Water not diverted to the PVID canals flows into a 60-foot-long Venturi flume which discharges into the 6,325-foot-long Powerhouse Discharge Canal. Water from the Powerhouse Discharge Canal flows into the East Fork Russian River.

Project Recreation Facilities

A variety of developed project recreation facilities are located in the immediate vicinity of the project. The developed project recreation facilities include family campgrounds, group campgrounds, and day use facilities that are open to the public.

Five family campgrounds and one group campground are located along the shoreline of Lake Pillsbury. In addition, one campground with both family and group capacity is located along the Eel River upstream of Van Arsdale Reservoir. Developed day use facilities in the vicinity of Lake Pillsbury include a visitor information kiosk, three day use areas, three boat launches, and associated parking and picnic areas.

A variety of non-project private recreation facilities, including recreational resorts, private camps, and private residence tracts are also located around Lake Pillsbury. With the exception of Westshore Camp, all of the private recreation facilities in the vicinity of Lake Pillsbury are located on NFSL and therefore operated under long-term lease agreements with the USFS. The Westshore Camp is located on PG&E land and operated by the Westshore Campers Association under a long-term lease agreement with PG&E. The owners of the private recreation facilities around Lake Pillsbury maintain boat docks and/or launches along the shoreline. These boat docks and launches are located within the FERC project boundary, on land owned by PG&E, and are therefore operated under long-term agreements with PG&E.

3.1.2 Existing Project Operation

The project is operated in compliance with existing regulatory requirements, agreements, and water rights to generate power and deliver consumptive water to local water users. The following sections summarize water management, regulatory requirements, water rights, and water supply agreements associated with the project.

Water Management

The project began operating in 1908. As environmental values have evolved, so too has PG&E's operation of the project. Historically (i.e., prior to 1979), PG&E was required by the Federal Power Commission, FERC's predecessor, to maintain a minimum year-round streamflow of 2 cfs in the Eel River below Cape Horn Dam. However, beginning in the fall of 1979, minimum streamflow requirements were increased

substantially to mimic the pattern and timing of the natural hydrograph of the Upper Eel River. Over the years since then, the flow regime has been modified periodically based on the results of extensive fisheries studies and water modeling efforts, but has continued to mimic the natural hydrograph.

Beginning in 2004, a flow regime prescribed by NMFS (the federal agency under the Endangered Species Act [ESA] with jurisdiction over listed anadromous fish species) was incorporated into PG&E's FERC license via a license amendment. The flow regime was included in the Reasonable and Prudent Alternative (RPA) of the Biological Opinion prepared by NMFS in 2002 for project operations, and is designed to protect salmon and steelhead populations in the Upper Eel River Watershed. The flow regime was developed based on data from years of study conducted by PG&E and others, including: an initial 3-year relicensing study (1979–1982); a 10-year license compliance study (1985–1996); input from many stakeholders, including federal and state resource agencies, Native American tribes, water supply and agricultural interests, and non-governmental organizations. It remains the currently required flow regime.

Today, NMFS continues to closely evaluate flows in the Eel and Russian Rivers, seeking to balance the benefits to salmon and steelhead in both rivers while considering other beneficial uses. PG&E continues to conduct annual fisheries monitoring studies in the Eel River and closely communicates with NMFS, CDFW, and Native American tribes regarding the protection of salmon and steelhead populations.

The current Eel River flow schedule below Cape Horn Dam is very complex and is designed to mimic the natural hydrograph. For example, minimum summer flow requirements in the Eel River below Cape Horn Dam range from 3 to 5 cfs in very dry years, 9 to 20 cfs in dry years, 15 to 25 cfs in wet years, and 30 to 35 cfs in very wet years. During the fall through spring period, the flow schedule incorporates natural flow variability, by adjusting flows *on a daily basis*, based on natural inflows to the project. During years of moderate to high inflows, minimum flow requirements increase during the fall to 140 cfs, increase in early spring to 200 cfs, and then decrease back to the summer flow minimums during late spring and early summer. During years of low inflow, minimum flow requirements increase during the early fall to 25 cfs, increase in late fall to 100 cfs, and then decrease back to summer minimums during spring. This highly complex flow schedule evolved from a prior study flow schedule initiated in late 1979 and later modified based on the results of extensive fisheries studies. Salmon and steelhead habitat was substantially enhanced through implementation of the current flow schedule.

Minimum flow requirements in the East Fork Russian River below the powerhouse are also specified in the RPA. These minimum flows range from 5 to 75 cfs between May 15 and September 15, and range from 5 to 35 cfs between September 16 and May 14 depending on water year classification. Releases for PVID are subject to a

flow cap. During the growing season, defined as April 15 to October 15, the maximum release to PVID is 50 cfs. During the rest of the year, the maximum release to PVID is 5 cfs. Brief exceptions to this flow cap are allowed for frost protection purposes. As specified in the RPA, diversions from the Eel River to the East Fork Russian River are limited to the amounts set out in the RPA when the actual amount of water stored in Lake Pillsbury ("storage") is below a particular threshold, which changes daily. The storage thresholds for limiting diversions are referred to as the Target Storage Curve. When the amount of water stored in Lake Pillsbury exceeds the Target Storage Curve value on a given day, PG&E can divert water above and beyond the minimum releases to East Fork Russian River plus PVID's allotment. However, when the amount of water stored in Lake Pillsbury is below the Target Storage Curve, PG&E's diversion is capped at making the minimum releases to East Fork Russian River and delivering PVID's required allotment. To ensure that every possible effort was made to maximize the amount of water stored during the important pre-dry-season period, Target Storage Curve values were set at levels higher than can be attained during the spring.

Regulatory Requirements

Project operations are regulated by requirements contained in: (1) the existing 1983 FERC license; (2) the 2004 license amendment, which incorporated the terms of NMFS' RPA; and (3) a 2007 operational "reinterpretation" of the terms of the 2002 RPA. The project is further limited by PG&E's existing water rights and water supply agreement with PVID.

Water Rights

PG&E holds water rights for both power and consumptive uses. Water is diverted from the Eel River for generation at Potter Valley Powerhouse in the East Fork Russian River Watershed. After passing through the Potter Valley Powerhouse, a portion of the powerhouse outflow is diverted via canals to PVID for consumptive use. The remaining outflow is abandoned to the East Fork Russian River. This abandoned water from powerhouse operations adds significant inflow to Lake Mendocino and benefits downstream users.

PG&E has three licensed water rights for project diversions and two pre-1914 water rights. License 1424, with a priority date of March 12, 1920, allows PG&E to divert and store up to 102,366 acre-feet per annum (afa) at Lake Pillsbury for the beneficial uses of hydropower generation and incidental Fish and Wildlife Protection and Enhancement. License 1199, with a priority date of August 15, 1927, allows PG&E to divert and store up to 4,500 afa at Lake Pillsbury for irrigation purposes within the PVID service area. License 5545, with a priority date of March 11, 1930, allows PG&E to divert to storage up to 4,908 afa of water at Lake Pillsbury and to directly divert up to 40

cfs from the Eel River for irrigation purposes within the PVID service area in the Russian River Watershed.

PG&E claims a pre-1914 water right to directly divert up to 340 cfs from the Eel River, as specified in Statement of Water Diversion and Use (SWDU) 1010, for power generation and irrigation use. PG&E also claims a pre-1914 water right to store up to 1,457 afa in Van Arsdale Reservoir, as specified in SWDU 4704, for power, irrigation and domestic use.

Water Supply Agreement

PG&E has a contract to sell and deliver water to PVID at the tailrace of the Potter Valley Powerhouse. PG&E's obligation under the current contract is to deliver up to 19,000 ac-ft of water to PVID at a rate not to exceed 50 cfs, provided the water is available and permitted per PG&E's applicable water rights

3.2 APPLICANTS' PROPOSAL

3.2.1 Proposed Project Facilities and Operations

PG&E proposes to continue to operate and maintain the Potter Valley Project as required by its existing license. PG&E does do not propose any new development or changes in project operation at this time.

The PAD states that PG&E proposes to modify the existing project boundary to: (1) include all facilities necessary for operation and maintenance of the project; and (2) exclude lands within the current FERC project boundary not necessary for the operation and maintenance of the project. However, the PAD does not specify which lands it proposes to add to, or subtract from, the existing project boundary.

3.2.2 Proposed Environmental Measures

The existing environmental measures implemented at the Potter Valley Project are described in section 4.6 of the PAD. PG&E does not propose any additional PM&E measures at this time. The PAD states that additional PM&E measures may be developed by PG&E during the preparation of the Preliminary Licensing Proposal and/or License Application after a thorough evaluation of any new resource issues identified and following a rigorous examination of the appropriateness, potential benefit, and cost-effectiveness of any new measure.

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 applicants 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 all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement 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 EIS.

3.5.1 Federal Government Takeover

In accordance with § 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.[7] 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 Potter Valley Project should no longer be used to produce

[7] 16 U.S.C. §§ 791(a)-825(r).

power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

3.5.2 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 and consumptive water to the 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 Potter Valley Project, and preliminary staff analysis, we have identified water quality (dissolved oxygen and water temperature) and fisheries as resources that could be cumulatively affected by the proposed continued operation and maintenance of the Potter Valley Project in combination with other activities in the Eel 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

Eel River Basin and Russian River Basin. We have identified the geographic scope for water quality to include the Eel River from Lake Pillsbury to its confluence with the Middle Fork Eel River, and the East Fork Russian River from the Potter Valley powerhouse to Lake Mendocino. We chose this geographic scope because the operation and maintenance of the Potter Valley Project, in combination with other water development activities in these drainages may cumulatively affect water quality through the geographic reaches identified. We have identified the geographic scope for fishery resources to include the Eel River from Lake Pillsbury to its mouth and the East Fork Russian River from the Potter Valley powerhouse to Lake Mendocino. We chose these geographic scopes because the operation and maintenance of the Potter Valley Project, in combination with other activities in these drainages may cumulatively affect water quality and fishery resources through the geographic reaches identified.

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 Potter Valley 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 EIS. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects.

4.2.1 Geologic and Soils Resources

- None.

4.2.2 Aquatic Resources

- Effects of continued project operation on dissolved oxygen and water temperature in the Eel River and East Fork Russian River.*****

- Effects of continued project operation on streamflow and aquatic habitat in The Eel River and East Fork Russian Rivers on salmon, resident and special status fishes, amphibians, and benthic macroinvertebrates.*****

- Effects of continued project operation and related recreational use on the introduction and spread of aquatic invasive species.

4.2.3 Terrestrial Resources

- Effects of project operation and maintenance activities on riparian habitat.

- Effects of project maintenance activities and recreational use on the spread of non-native invasive plant species.

- Effects of project operation, maintenance activities, and recreational use on special-status plant species.

- Effects of project operation, maintenance activities, and recreational use on special-status wildlife species, including the foothill yellow-legged frog, western pond turtle, northern goshawk, and bald eagle.

4.2.4 Threatened and Endangered Species

- Effects of continued project operation, maintenance, and recreational use on federally listed and proposed endangered, threatened, and candidate species.

4.2.5 Recreation Resources

- Effects of project operation and maintenance on recreational access and use in the project area.

- Adequacy of existing recreational access and facilities to meet current and future recreation demand.

- Effects of project operation and maintenance on recreational whitewater boating use on the Eel River, within the project area.

- Effects of continued project operation and maintenance on the aesthetic quality of the project area.

4.2.6 Cultural Resources

- Effects of continued project operation and maintenance on historic or archeological resources, or traditional cultural properties that may be eligible for inclusion in the National Register of Historic Places.

4.2.7 Developmental Resources

- Economics of the project and the effects of any recommended environmental measures on the project's economics.

5.0 PROPOSED STUDIES

Section 6.2 of PG&E's PAD identifies a number of potential studies and analyses that could be used to address data gaps identified by the review of existing information. Each identified potential study includes the following subsections: (1) Potential Resource Issue; (2) Project Nexus; (3) Relevant Information; (4) Potential Information Gaps; and (5) Potential Studies to Address Identified Significant Information Gaps. Table 1 identifies PG&E's initial study proposals by resource area; the PAD contains detailed information on the study proposals. Further studies may be needed based on comments provided to the Commission and PG&E from interested participants, including Indian tribes.

Table 1. PG&E's initial study proposals for the Potter Valley Project. (Source: Potter Valley Project PAD)

Resource Area	Proposed Study
Aquatic Resources	
	Study AQ 1 – Hydrology and Project Operations Modeling
	Study AQ 2 – Water Temperature
	Study AQ 3 – Water Quality
	Study AQ 4 – Geomorphology
	Study AQ 5 – Instream Flow
	Study AQ 6 – Lake Pillsbury Fish Habitat
	Study AQ 7 – Fish Passage
	Study AQ 8 – Fish Entrainment
	Study AQ 9 – Fish Populations

Resource Area	Proposed Study
	Study AQ 10 – Special-Status Amphibians and Aquatic Reptiles
	Study AQ 11 – Macroinvertebrates and Special-Status Mollusks
Terrestrial Resources	
	Study TERR 1 – Botanical Resources
	Study TERR 2 – Wildlife Resources
Recreation, Land Use, and Aesthetics	
	Study REC 1 – Recreation Facility Assessment
	Study REC 2 – Reservoir Recreation Opportunities
	Study REC 3 – Whitewater Boating Flow Assessment
	Study LAND 1 – Project Roads and Trails Assessment
	Study LAND 2 – Visual Resource Assessment
Cultural Resources	
	Study CUL 1 – Cultural Resources
	Study CUL 2 – Tribal Resources

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 Potter Valley 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 EA, EIS, or similar environmental study (previous, ongoing, or planned) relevant to the proposed relicensing of the Potter Valley 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 EIS 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 **August 4, 2017**. All filings must clearly identify the following on the first page: **Potter Valley Project (P-77-285)**. 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.mailto:ferconlinesupport@ferc.gov.

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to John Mudre at (202) 502-8902 or john.mudre@ferc.gov. Additional information about the Commission's licensing process and the Potter Valley Project may be obtained from the Commission's website, www.ferc.gov.

7.0 EIS PREPARATION

At this time, we anticipate the need to prepare a draft and final EIS. The EIS will be sent to all persons and entities on the Commission's service and mailing lists for the Potter Valley Project. The EIS will include our recommendations for operating procedures, as well as environmental protection and enhancement measures that should be part of any license issued by the Commission. All recipients will then have 45 days to review the EIS and file written comments with the Commission.

The major milestones, with pre-filing target dates, are as follows:

Major Milestone	Target Date
Scoping Meetings	June 2017
Applicants file Final License Application	April 2020
Ready for Environmental Analysis Notice Issued	-
Deadline for Filing Comments, Recommendations, and-Agency Terms and Conditions/Prescriptions	-
Draft EIS Issued	-
Comments on draft EIS Due	-
Deadline for Filing Modified Agency Recommendations	-
Final EIS Issued	-
Order Issued	-

Post-filing milestones will be established following the applicants' filing of the final license application. A copy of the applicants' process plan and schedule, which has a complete list of pre-filing relicensing milestones for the Potter Valley Project, including those for developing the license application, is attached as appendix B to this SD1.

8.0 PROPOSED EIS OUTLINE

The preliminary outline for the Potter Valley EIS is as follows:

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EXECUTIVE SUMMARY

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- 1.2 Purpose of Action and Need for Power
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  - 1.3.1 Federal Power Act
    - 1.3.1.1 Section 18 Fishway Prescriptions
    - 1.3.1.2 Section 10(j) Recommendations
  - 1.3.2 Clean Water Act
  - 1.3.3 Endangered Species Act
  - 1.3.4 Coastal Zone Management Act
  - 1.3.5 National Historic Preservation Act
  - Other statutes as applicable
- 1.4 Public Review and Comment
  - 1.4.1 Scoping
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- 2.1 No-action Alternative
  - 2.1.1 Existing Project Facilities
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  - 2.2.1 Proposed Project Facilities
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- 2.3 Staff Alternative
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- 2.5 Other Alternatives (as appropriate)
- 2.6 Alternatives Considered but Eliminated from Detailed Study
  - 2.6.1 Federal Government Takeover of the Project
  - 2.6.2 Issuing a Nonpower License

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. PG&E has preliminarily identified and reviewed the plans listed below that may be relevant to the Potter Valley Project. 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 Potter Valley Project.

LIST OF QUALIFYING FEDERAL AND STATE COMPREHENSIVE PLANS POTENTIALLY RELEVANT TO THE PROJECT

Resource Area(s)*	Comprehensive Plans
WL, BR, R&L	Bureau of Land Management. Forest Service. 1994. Standards and Guidelines for Management of Habitat for Late-successional and Old-growth Forest-related Species within the Range of the Northern Spotted Owl. Washington, D.C. April 13, 1994.
F&A	California Department of Fish and Game. U.S. Fish and Wildlife Service. 2010. Final Hatchery and Stocking Program Environmental Impact Report/Environmental Impact Statement. Sacramento, California. January 2010.
WL	California Department of Fish and Game. 2007. California Wildlife: Conservation Challenges, California's Wildlife Action Plan. Sacramento, California. 2007.
F&A	California Department of Fish and Game. 1996. Steelhead Restoration and Management Plan for California. Sacramento, California. February 1996.
F&A	California Department of Fish and Game. 2003. Strategic Plan for Trout Management: A Plan for 2004 and Beyond. Sacramento, California. November 2003.
F&A	California Department of Fish and Wildlife. 2008. California Aquatic Invasive Species Management Plan. Sacramento, California. January 18, 2008.
R&L	California Department of Parks and Recreation. 1998. Public Opinions and Attitudes on Outdoor Recreation in California. Sacramento, California. March 1998.
R&L	California Department of Parks and Recreation. 1980. Recreation Outlook in Planning District 2. Sacramento, California. April 1980.
R&L	California Department of Parks and Recreation. 1980. Recreation Outlook in Planning District 3. Sacramento, California. June 1980.
R&L	California Department of Parks and Recreation. California Outdoor Recreation Plan (SCORP). Sacramento, California. April 1994.

LIST OF QUALIFYING FEDERAL AND STATE COMPREHENSIVE PLANS POTENTIALLY RELEVANT TO THE PROJECT

Resource Area(s)*	Comprehensive Plans
WR, F&A	California Department of Water Resources. 1994. California Water Plan Update. Bulletin 160-93. Sacramento, California. October 1994. Two volumes and executive summary.
WR, F&A	California State Water Resources Control Board. 1995. Water Quality Control Plan Report. Sacramento, California. Nine volumes.
WR, F&A	California State Water Resources Control Board. 2011. Water Quality Control Plan for the North Coast Region. Sacramento, California. May 2011.
G&S, WR, F&A, WL, BR, R&L, AE, CU, SE	Forest Service. 1995. Mendocino National Forest Land and Resource Management Plan. Department of Agriculture, Willows, California.
G&S, WR, F&A, WL, R&L, AE	National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
WR, F&A	State Water Resources Control Board. 1999. Water Quality Control Plans and Policies Adopted as Part of the State Comprehensive Plan. April 1999.
F&A	U.S. Fish and Wildlife Service. 2001. Final Restoration Plan for the Anadromous Fish Restoration Program. Department of the Interior, Sacramento, California. January 9, 2001.
F&A, R&L	U.S. Fish and Wildlife Service. Undated. Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, DC.

Source: FERC Revised List of Comprehensive Plans, December 2016

*Resource Areas

AE = Aesthetic Resources
BR = Botanical Resources
CU = Cultural Resources
F&A = Fish and Aquatic
G&S = Geology and Soils
R&L = Recreation and Land Use
SE = Socioeconomics
WL = Wildlife Resources
WR = Water Resources

10.0 MAILING LIST

The list below is the Commission's official mailing list for the Potter Valley Project (FERC No. 77). If you want to receive future mailings for the Potter Valley 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: Potter Valley Project No. 77-285. You may use the same method if requesting removal from the mailing list below.

Register online at http://www.ferc.gov/esubscribenow.htm 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 Potter Valley Project

Amador Water Agency c/o Joshua Horowitz, Attorney Bartkiewicz, Kronick & Shanahan 1011 22nd Street Sacramento, CA 95816-4907	Steve Rothert California Director American Rivers 120 Union St. Nevada City, CA 95959
Kevin Richard Colburn National Stewardship Director American Whitewater 1035 Van Buren Street Missoula, MT 59802	Calif. Sportfishing Protection Alliance c/o Stephan Volker Law Offices of Stephan C. Volker 436 14th Street Oakland, CA 94612
Nancee M. Murray, Senior Staff Counsel California Dept. of Fish and Wildlife Office of General Counsel 1416 Ninth St., 12th Floor Sacramento, CA 95814	Michael R. Valentine, ESQ General Counsel California Department of Fish and Wildlife 1416 Ninth Street, Room 1335 Sacramento, CA 95814
Gary Stacey, Regional Manager California Dept. of Fish and Wildlife Northern Region 601 Locust Street Redding, CA 96001	Mark Stopher Habitat Cons. Program Manager California Department of Fish and Wildlife Northern Region 601 Locust Street Redding, CA 96001

Donna L. Cobb Senior Environmental Scientist California Dept. of Fish and Wildlife Northern Region 601 Locust Street Redding, CA 96001	Stephen Puccini Senior Staff Counsel California Department of Fish and Wildlife Office of the General Counsel 1416 Ninth Street, 12th Floor Sacramento, CA 95814
Ryan Broddrick, Director California Dept. of Fish and Wildlife 1416 Ninth Street 12th Floor Sacramento, CA 98514	Carl Wilcox Acting Chef, Water Branch California Department of Fish and Wildlife 830 S Street Sacramento, CA 95814
Jim Canaday Senior Environmental Scientist California Dept. of Water Resources 1001 I St Sacramento, CA 95814	Dana Heinrich Senior Staff Counsel California Department of Water Resources 1001 I Street Sacramento, CA 94816
Camilla Williams California Department of Water Resources PO Box 2000 Sacramento, CA 95812	California Hydro. Reform Coalition c/o Richard Roos-Collins Director, Legal Services Natural Heritage Institute 2140 Shattuck Avenue, Ste. 801 Berkeley, CA 94704-1229
California Public Utilities Comm. 505 Van Ness Ave San Francisco, CA 94102-3214	Arocles Aguilar, ESQ California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102
Andrew Barnsdale California Public Utilities Comm. 505 Van Ness Ave San Francisco, CA 94102-3214	Peter V Allen California Public Utilities Commission 505 Van Ness Ave., Rm 5130 San Francisco, CA 94102-3214
Traci Bone California Public Utilities Comm. 505 Van Ness Avenue, 5th Floor San Francisco, CA 94102	Margaret J Kim California Resources Agency 1416 9th St., Ste 1311 Sacramento, CA 95814-5509
California Trout, Inc. c/o Richard Roos-Collins Director, Legal Services Natural Heritage Institute 2140 Shattuck Avenue, Ste. 801 Berkeley, CA 94704-1229	Grant M. W. Kolling, ESQ Senior Assistant City Attorney City of Palo Alto, California PO Box 10250 Palo Alto, CA 94303-0862

Jane Ratchye Asst. Director of Utilities City of Palo Alto, California 250 Hamilton Ave Palo Alto, CA 94301	Eric R Klinkner Deputy General Manager City of Pasadena Dept. of Water & Power 150 S. Los Robles Suite 200 Pasadena, CA 91101
Legal Department Director City of Santa Clara, California 1500 Warburton Ave Santa Clara, CA 950503713	City of Ukiah, CA c/o David Rapport Rapport and Marston 405 West Perkins Street Ukiah, CA 95482
John Wanger, City Engr. City of Cloverdale 126 N Cloverdale Blvd Cloverdale, CA 95425-3352	Cameron L. Reeves County of Lake 255 N Forbes St Lakeport, CA 95453-4759
Shanda M. Harry County of Lake 255 North Forbes St. Lakeport, CA 95453	County of Sonoma c/o Michael Swiger, Partner 1050 Thomas Jefferson Street, NW 7th Floor Washington, DC 20007
County of Sonoma Mr. Steven Shupe 575 Administration Drive, Room 105A Santa Rosa, CA 95403	Friends of the Eel River c/o Michael Jackson 178 Lee Way Quincy, CA 95971
Friends of the Eel River c/o Stephan Volker Law Offices of Stephan C. Volker 436 14th Street Oakland, CA 94612	Friends of the Eel River Ellison Folk, Attorney Shute, Mihaly & Weinberger 396 Hayes St. San Francisco, CA 94102
Friends of the Eel River Amy Bricker, Attorney Shute, Mihaly & Weinberger 396 Hayes St. San Francisco, CA 94102	Jennifer Carville P. Advocate Friends of the River 1418 20th St; Ste A Sacramento, CA 95811-5206
Joan Vilms, President Friends of the Russian River 1217 14th St Santa Rosa, CA 95404-3916	Steven G Lins Assistant City Attorney Glendale, City of 613 E Broadway Ste 220 Glendale, CA 91206-4308

Ken Thompson Lake Pillsbury CRMP 137 Vinecrest Cir Windsor, CA 95492-9198	Cameron L Reeves Lake, County of 255 N Forbes St Lakeport, CA 95453-4759
Los Angeles Dept. of Water & Power c/o Norman Pedersen, Attorney Hanna and Morton LLP 444 South Flower Street, Suite 1500 Los Angeles, CA 90071-2916	Candace Horsley, Staff Mendocino Co. Inland Water & Power Comm. P.O. Box 1247 Ukiah, CA 95482
H. Peter Klein Mendocino, County of Office Of County Counsel-Admin. 501 Low Gap Rd Rm 1030 Ukiah, CA 95482-3738	Mendocino County FERC Documents 890 North Bush St. Ukiah, CA 95482
Clerk of the Board Mendocino, County of Board of Supervisors 501 Low Gap Rd Ukiah, CA 95482-3738	Board of Supervisors Mendocino, County of County Administration Center 501 Low Gap Rd Rm 1090 Ukiah, CA 95482-3738
Ernest Hahn Sr. Resource Specialist Metropolitan Water District of Southern California 700 N. Alameda St., Box 54153 Los Angeles, CA 90054-0153	Chet Wystepek City Manager Healdsburg, City of 401 Grove St Healdsburg, CA 954484723
Gregory Pohl Modesto Irrigation District PO Box 4060 Modesto,CA 95352-4060	Martin R Hopper General Manager M-S-R Public Power Agency PO Box 4060 Modesto,CA 95352-4060
Nevada Irrigation District c/o Jeffrey Meith, Partner Meith, Soares & Sexton, LLP 1681 Bird Street Oroville, CA 95965	Les Nicholson Hydro Manager Nevada Irrigation District 28311 Secret Town Rd Colfax, CA 95713-9473
Dick Butler National Marine Fisheries Service Habitat Conservation Branch 777 Sonoma Ave., Ste 325 Santa Rosa, CA 95404-6515	North Coast Rivers Alliance c/o Stephan Volker Law Offices of Stephan C. Volk 436 14th Street Oakland, CA 94612

Chris Degabriele General Manager North Marin Water District PO Box 146 Novato,CA 94948-0146	Craig Bell Executive Director Northern California Assn. of River Guides PO Box 1256 Gualala,CA 95445-1256
Pacific Coast Federation of Fishermen's Associations c/o Stephan Volker Law Offices of Stephan C. Volk 436 14th Street Oakland, CA 94612	Neil Wong License Coordinator Pacific Gas and Electric Company PO Box 770000 San Francisco,CA 94177-0001
Debbie Powell License Coordinator Pacific Gas and Electric Company PO Box 770000 San Francisco,CA 94177-0001	PG&E Law Dept., FERC Cases Pacific Gas and Electric Company 77 Beale Street San Francisco, CA 94105
Stephen Phillips Pacific States Marine Fisheries Comm. 205 SE Spokane St Ste 100 Portland, OR 97202-6487	Janet Pauli Potter Valley Irrigation Distr P.O. Box 186 10170 Main St. Potter Valley, CA 95469
Potter Valley Project LLC c/o John Whittaker Winston & Strawn LLP 1700 K St. N.W. Washington, DC 20006-3817	David Arthur Redding Electric Utility PO Box 496071 Redding, CA 96049-6071
William Koehler, General Manager Redwood Valley Co. Water District P O Box 399 2370 Webb Ranch Road Redwood Valley, CA 95470	Lon W House Regional Council of Rural Counties 4901 Flying C Rd Cameron Park, CA 95682
John Flitner Rohnert Park, City of Cith Hall of Rohnert Park 130 Avram Ave Rohnert Park, CA 94928-2485	Linda Spiro Rohnert Park, City of City Hall of Rohnert Park 130 Avram Ave Rohnert Park, CA 94928-2486
Round Valley Indian Tribes c/o Jacquelyn Jampolsky Berkey Williams LLP 2030 Addison St., Suite 410 Berkeley, CA. 94704	Norman Whipple, President Round Valley Tribe 77826 Covello Rd Covelo, CA 95428-9552

Michael Pretto Silicon Valley Power 1500 Warburton Ave Santa Clara, CA 95050-3713	Raymond C Camacho Assistant Director of Electric Silicon Valley Power 1500 Warburton Ave. Santa Clara, CA 95050
Solano Irrigation District c/o Jeffrey Meith, Partner Meith, Soares & Sexton, LLP 1681 Bird Street Oroville, CA 95965	Judy James Ex. Director Sonoma County Farm Bureau 970 Piner Rd Santa Rosa, CA 954031988
Sonoma County Water Agency c/o Michael Swiger, Partner Van Ness Feldman, LLP 1050 Thomas Jefferson Street, NW 7th Floor Washington, DC 20007	Steven Woodside, Esquire Sonoma, County of Sonoma County Water Agency 575 Administration Dr Rm 105A Santa Rosa, CA 95403-2815
Cory O'Donnell Sonoma County Water Agency Deputy County Counsel 575 Administration Drive, Room 105 Santa Rosa, CA 95403	South Feather Water & Power Agency c/o Jeffrey Meith, Partner Meith, Soares & Sexton, LLP 1681 Bird Street Oroville, CA 95965
Kelly Henderson, Attorney Southern California Edison Company PO Box 800 Rosemead,CA 91770-0800	Amber Villalobos State Water Resources Control Board (CA) 1001 I Street Sacramento, CA 95814
Michael Ishizue, PE Stetson Engineers Inc. Suite K 2171 Francisco Blvd E San Rafael, CA 94901-5542	Sweetwater Springs Water District c/o Michael Gogna, Attorney Meyers, Nave, Riback, Silver & Wilson 401 Mendocino Avenue, Suite 100 Santa Rosa, CA 95401
Rick Coleman General Manager Trinity PUD 26 Ponderosa Lane Weaverville, CA 96096-1216	Michael T. Brommer Turlock Irrigation District PO Box 949 Turlock,CA 95381-0949
Commander U.S. Army Corps of Engineers San Francisco District Office 1455 Market St, #1760 San Francisco, CA 94103	U.S. Bureau of Land Management PO Box 2965 Portland,OR 97208-2965

Blaine Baker District. Ranger Upper Lake Ranger District 10025 Elk Mountain Rd Upper Lake, CA 95485-9500	Daniel Chisholm Supervisor Mendocino National Forest 825 N Humboldt Ave Willows, CA 95988-9783
Dawn R Andrews U.S. Dept. Of Commerce, NOAA Office Of General Counsel 501 W Ocean Blvd Ste 4470 Long Beach, CA 90802-4221	Regional Environ. Officer U.S. Department of Interior 333 Bush St, Ste 515 San Francisco, CA 94104
Denis O'Halloran FERC Coordinator U.S. Department of Interior 6000 J. Street, Placer Hall Sacramento, CA 95819	Stephen M. Bowes U.S. Department of Interior 333 Bush St Ste 500 San Francisco, CA 94104-2828
Kerry O'Hara Assistant Regional Solicitor U.S. Department of Interior 2800 Cottage Way, Rm. E-1712 Sacramento, CA 95825	USFWS Field Supervisor 2800 Cottage Way, W2605 Sacramento, CA 95825
Erica Niebauer Office of Regional Solicitor U.S. Department of Interior 2800 Cottage Way, W2605 Sacramento, CA 95825	John Bezdek U.S. Department of Interior 1849 C Street Washington, DC 20240
Martin Bauer U.S. Department of Interior Bureau Of Reclamation 3310 El Camino Ave Ste 300 Sacramento, CA 95821-6377	Chris Watson Attorney-Advisor U.S. Department of Interior 1849 C St, NW - MS 6513 Washington, DC 20240
Russell W Pittman, Chief U.S. Department of Justice 555 4th St NW Washington, DC 20530-0001	Bob Anderson Ex. Director United Winegrowers of Sonoma County 731 S Fitch Mountain Rd Healdsburg, CA 95448-4600
Jim Fenwood USDA Forest Service Mendocino National Forest 825 N Humboldt Ave Willows, CA 95988-9783	Greg Dills West Lake Resource Conservation District 883 Lakeport Blvd Lakeport, CA 95453-5405

Yuba County Water Agency c/o Joshua Horowitz, Attorney Bartkiewicz, Kronick & Shanahan 1011 22nd Street Sacramento, CA 95816-4907	Curt Aikens General Manager Yuba County Water Agency 1220 F Street Marysville, CA 95901

APPENDIX A
STUDY PLAN CRITERIA
18 CFR 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
POTTER VALLEY PROJECT PROCESS PLAN AND SCHEDULE
(SOURCE: PAD)

Table 2-1 Process Plan and Schedule

FERC 18 CFR §	Relicensing Activity	Responsible Party	Activity Time Frame	Deadline[1]
Initiation of Relicensing Process				
5.5 5.5(d)	**Filing of Notification of Intent (NOI)**	Licensee	Five to five and one half years prior to existing license expiration. Filed concurrent with Pre-application Document.	4/6/2017
5.5(e)	Request to be non-Federal representative under Section 7 of the Endangered Species Act (ESA)	Licensee	Provide simultaneously with filing of NOI.	4/6/2017
5.5(e)	Request to initiate consultation under Section 106 of the National Historic Preservation Act (NHPA)	Licensee	Provide simultaneously with filing of NOI.	4/6/2017
5.6 5.6(a)	**Filing of Pre-application Document (PAD)**	Licensee	Five to five and one half years prior to existing license expiration. Filed concurrent with NOI.	4/6/2017
FERC Scoping				
5.7	**Initial Tribal Consultation Meeting**	FERC	Within 30 days following filing of NOI/PAD.	5/6/2017
5.8 5.8(a)	**Notice of Commencement of Proceeding and Scoping Document**	FERC	Within 60 days of filing NOI/PAD.	6/5/2017
5.8(a)(b) 5.8(b)(iv)	Issue notice of NOI/PAD and request for comments	FERC	Included in notice of commencement of proceeding.	6/5/2017
5.8(b)(2)	Decision regarding licensee request to initiate informal consultation under Section 7 of the ESA, or Section 106 of the NHPA	FERC	Included in notice of commencement of proceeding.	6/5/2017
5.8(c)	Issue Scoping Document 1 (SD1)	FERC	Concurrent with notice of commencement of proceeding.	6/5/2017
5.8(b)(3)(viii)	**Conduct public scoping meeting and site visit**	FERC	Within 30 days of the notice of commencement of proceeding.	7/5/2017
5.9(a)	File comments on NOI/PAD and SD1, and provide study requests	Participants	Within 60 days following the notice of commencement of proceeding.	8/4/2017

Table 2-1 Process Plan and Schedule

FERC 18 CFR §	Relicensing Activity	Responsible Party	Activity Time Frame	Deadline[1]
5.10	Issue Scoping Document 2 (if necessary)	FERC	Within 45 days following the deadline for filing of comments on SD1.	9/18/2017
Study Plan Development				
5.11 5.12	**Proposed Study Plan and Study Requests**			
5.11(a)	**File Proposed Study Plan**	Licensee	Within 45 days following the deadline for filing of comments on the PAD and providing study plan requests.	9/18/2017
5.11(e)	File proposal for conducting study plan meeting(s) during 90-day Proposed Study Plan review period.	Licensee	Concurrent with Proposed Study Plan	9/18/2017
5.11(e)	**Conduct initial study plan meeting**	Licensee	No later than 30 days after the deadline date for filing the Proposed Study Plan.	10/18/2017
5.12	File comments on Proposed Study Plan or submit revised study requests	Participants	Must be filed within 90 days after the Proposed Study Plan is filed.	12/17/2017
5.13	**Revised Study Plan and Study Plan Determination**			
5.13(a)	File Revised Study Plan	Licensee	Within 30 days following the deadline for filing comments on the Proposed Study Plan.	1/16/2018
5.13(b)	File comments on Revised Study Plan	Participants	Within 15 days following filing of the Revised Study Plan.	1/31/2018
5.13(c)	**Issue Study Plan Determination**	FERC	Within 30 days following filing of the Revised Study Plan.	2/15/2018
5.13(d) 5.14(a)	File notice of study dispute	Mandatory Conditioning Agencies	Within 20 days of the Study Plan Determination.	3/7/2018
5.13(d)	Study Plan approved, if no notice of study dispute is filed	FERC	Twenty days following the notice of study dispute filing period.	3/7/2018
5.14	**Formal Study Dispute Resolution Process**			
5.14(d)	Convene Dispute Resolution Panel, if notice of Study Plan dispute is filed	FERC	Within 20 days of the notice of study dispute.	3/27/2018
Study Plan Development (continued)				
5.14(i)	File with Commission and serve upon panel members comments and information regarding dispute	Licensee	No later than 25 days following the notice of study dispute.	4/1/2018
5.14(k)	Issue findings and recommendations regarding the study plan dispute to Director of	Dispute Resolution	No later than 50 days following the notice of study dispute.	4/26/2018

Table 2-1 Process Plan and Schedule

FERC 18 CFR §	Relicensing Activity	Responsible Party	Activity Time Frame	Deadline[1]
	the Office of Energy Projects	Panel		
5.14(l)	**Issue written determination on study plan dispute**	FERC	No later than 70 days from the date of filing of the notice of study dispute.	5/16/2018
Conduct Studies				
5.15(a)	Conduct First Year Studies (for study plans not under dispute)	Licensee	March–December 2018	
5.15(b) 5.15(c)(1)	File progress report and Initial Study Report	Licensee	Within one year after Commission approval of the study plan.	2/15/2019
5.15(c)(2)	Conduct Initial Study Report Meeting	Licensee	Within 15 days of filing the Initial Study Report.	3/2/2019
5.15(c)(3)	File Initial Study Report Meeting Summary, including any study modifications or new studies	Licensee	Within 15 days following the Initial Study Report Meeting.	3/17/2019
5.15(c)(4)	File disagreement with Initial Study Report Meeting Summary	FERC and Participants	Within 30 days following the filing of the Initial Study Report Meeting Summary.	4/16/2019
5.15(c)(7)	If no disagreements are filed, approve Initial Study Report Meeting Summary and any proposed study plan amendments	FERC	Thirty days following the filing of the Initial Study Report Meeting Summary.	4/16/2019
5.15(c)(5)	If disagreements are filed, file responses to disagreement with Initial Study Report Meeting Summary	FERC, Licensee and Participants	Within 30 days of the filing of a disagreement with Initial Study Report Meeting Summary	5/16/2019
5.15(c)(6)	Resolve disagreement and amend approved study plan	FERC	Within 30 days following the due date for responses to disagreement.	6/15/2019
5.15(f)	Conduct Second Year Studies (for study plans not under dispute)	Licensee	January–December 2019	
Conduct Studies (continued)				
5.15(f)	File progress report and Updated Study Report	Licensee	Within two years after Commission approval of the study plan.	2/15/2020
5.15(c)(2)	Conduct Updated Study Report Meeting	Licensee	Within 15 days of filing the Updated Study Report.	3/1/2020
5.15(c)(3)	File Updated Study Report Meeting Summary, including any study modifications or new studies	Licensee	Within 15 days following the Updated Study Report Meeting.	3/16/2020
5.15(c)(4)	File disagreement with Updated	FERC and	Within 30 days following the	4/15/2020

Table 2-1 Process Plan and Schedule

FERC 18 CFR §	Relicensing Activity	Responsible Party	Activity Time Frame	Deadline[1]
	Study Report Meeting Summary	Participants	filing of the Updated Study Report Meeting Summary.	
5.15(c)(7)	If no disagreements are filed, approve Updated Study Report Meeting Summary and any proposed study plan amendments	FERC	Thirty days following the filing of the Updated Study Report Meeting Summary.	4/15/2020
5.15(c)(5)	If disagreements are filed, file responses to disagreement with Updated Study Report Meeting Summary	FERC, Licensee and Participants	Within 30 days of the filing of a disagreement with Updated Study Report Meeting Summary.	5/15/2020
5.15(c)(6)	Resolve disagreement and amend approved study plan	FERC	Within 30 days following the due date for responses to disagreement.	6/14/2020
Filing of License Application				
5.16(a)	**File Preliminary Licensing Proposal or Draft Application**	Licensee	No later than 150 days prior to the deadline for filing a new license application.	11/15/2019
5.16(e)	File comments on Preliminary Licensing Proposal or Draft License Application	FERC and Participants	Within 90 days of the filing date of the Preliminary Licensing Proposal or Draft Application.	2/13/2020
5.17(a)	**File License Application**	Licensee	No later than 24 months before the existing license expires.	4/14/2020

- Notes:
- [1]Dates indicate the day or timeframe within which an activity must occur. If the deadline falls on a weekend or holiday, the deadline is the following business day.

Document Content(s)