FEDERAL ENERGY REGULATORY COMMISSION
Washington, DC 20426
December 4, 2020

OFFICE OF ENERGY PROJECTS

Project No. 553-235-Washington
Skagit River Hydroelectric Project
Seattle City Light

VIA FERC Service

Subject: Scoping Document 2 for the Skagit River Hydroelectric Project, P-553-235

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document submitted by Seattle City Light (City Light) for relicensing the Skagit River Hydroelectric Project, FERC No. 553 (Skagit Project or project). The project is located on the Skagit River, in Whatcom, Skagit, and Snohomish Counties, Washington. The project includes three hydroelectric developments: Ross, Diablo, and Gorge.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an environmental document (NEPA document) 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 conducting scoping to ensure that all pertinent issues are identified and analyzed, and that the environmental document is thorough and balanced.

Our preliminary review of the scope of environmental issues associated with the proposed licensing of this project was described in Scoping Document 1 (SD1), issued on June 26, 2020. We requested written comments on SD1 to hear the views of interested parties on the scope of issues that should be addressed in the NEPA document. Based on the comments filed, we have updated SD1 to reflect our current view of the issues and alternatives to be considered in the NEPA document. ***Key changes from SD1 to SD2 are identified in bold and italicized type***.

SD2 is being distributed to the Commission's official mailing list (see section 8.0 of the attached SD2). 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. In lieu of an email request, you may submit a paper request. Submissions sent via the U.S.

Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. 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: **Skagit River Hydroelectric Project No. 553-235**.

You may also register online at https://ferconline.ferc.gov/eRegistration.aspx 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.

SD2 is issued for informational use by all interested entities; no response is required. If you have any questions about SD2, the scoping process, or how Commission staff will develop the environmental analysis for this project, please contact Matt Cutlip at (503) 552-2762 or matt.cutlip@ferc.gov. Additional information about the Commission's licensing process and the Skagit Project may be obtained from our website, www.ferc.gov, or Seattle City Light's licensing website, http://www.seattle.gov/light/skagit/Relicensing/default.htm.

Enclosure: Scoping Document 2

SCOPING DOCUMENT 2

SKAGIT RIVER HYDROELECTRIC PROJECT

WASHINGTON

PROJECT NO. 553-235

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

December 2020

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Project No. 553-235

SCOPING DOCUMENT 2

Skagit River Hydroelectric Project, No. 553-235

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 27, 2020, Seattle City Light (City Light) filed a Pre-Application Document (PAD) and Notice of Intent to seek a new license for the Skagit River Hydroelectric Project, FERC No. 553 (Skagit Project or project).[2]

The Skagit Project is located on the Skagit River, in Whatcom, Snohomish, and Skagit Counties, Washington. The project includes three hydroelectric developments: Ross Development, Diablo Development, and Gorge Development and has a total installed capacity of 650.25 megawatts (MW).[3] The average annual generation of the Skagit Project from 2014 to 2018 was 2,503,955 megawatt-hours (MWh).

A detailed description of the project is provided in section 3.0. The location of the project is shown on figure 1. The Skagit Project occupies 19,281.93 acres of federal lands administered by the National Park Service (NPS) and the U.S. Department of Agriculture - Forest Service (Forest Service). Portions of the project, including all the generating facilities, are located within the Ross Lake National Recreation Area (Ross

[1] 16 U.S.C. §§ 791(a)-825(r).

[2] The current license for the Skagit Project was issued with an effective date of May 1, 1995, for a term of 30 years and expires on April 30, 2025.

[3] On April 1, 2020, City Light requested to amend Exhibit M of its license to increase the project's capacity to 700.27 MW. Because there are discrepancies between the existing authorized installed capacity values presented in the PAD, the proposed amended authorized installed capacity values as presented in the PAD, and values approved by the Commission in the July 23, 1997 order approving the revised Exhibit M (*see* 80 FERC ¶ 62,056), the authorized installed capacity values presented herein use the values approved by the July 23, 1997 Commission order. Should City Light's revised Exhibit M be approved by the Commission, it is expected that City Light will update the authorized installed capacity values in relevant licensing documents moving forward.

Lake NRA), which is managed by the NPS as part of the North Cascades National Park Complex. The remainder of the federal lands within the project boundary are administered by the Forest Service and are primarily located along the transmission line right of way.

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 Skagit Project as proposed, and consider reasonable alternatives to the licensee's proposed action. In SD1, Commission staff indicated its intent to prepare an Environmental Assessment (EA) for the project. However, based on the written comments received during the scoping process, Commission staff withdraws that intent. Commission staff has not determined whether an EA or an Environmental Impact Statement (EIS) will be used to describe and evaluate the effects of the proposed actions and the alternatives.[5] The scoping process will help determine the required level of analysis and satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

[4] 42 U.S.C. §§ 4321 *et seq*.

[5] The Council on Environmental Quality (CEQ) issued a final rule on July 15, 2020, revising the regulations under 40 C.F.R. Parts 1500 – 1518 that federal agencies use to implement NEPA (see *Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act*, 85 Fed. Reg. 43,304). The final rule became effective on September 14, 2020, and applies to any NEPA process begun after the effective date. However, an agency may apply the revised NEPA regulations to ongoing activities and environmental documents begun before September 14, 2020. Commission staff intends to conduct its NEPA review for the Skagit Project in accordance with CEQ's revised regulations.

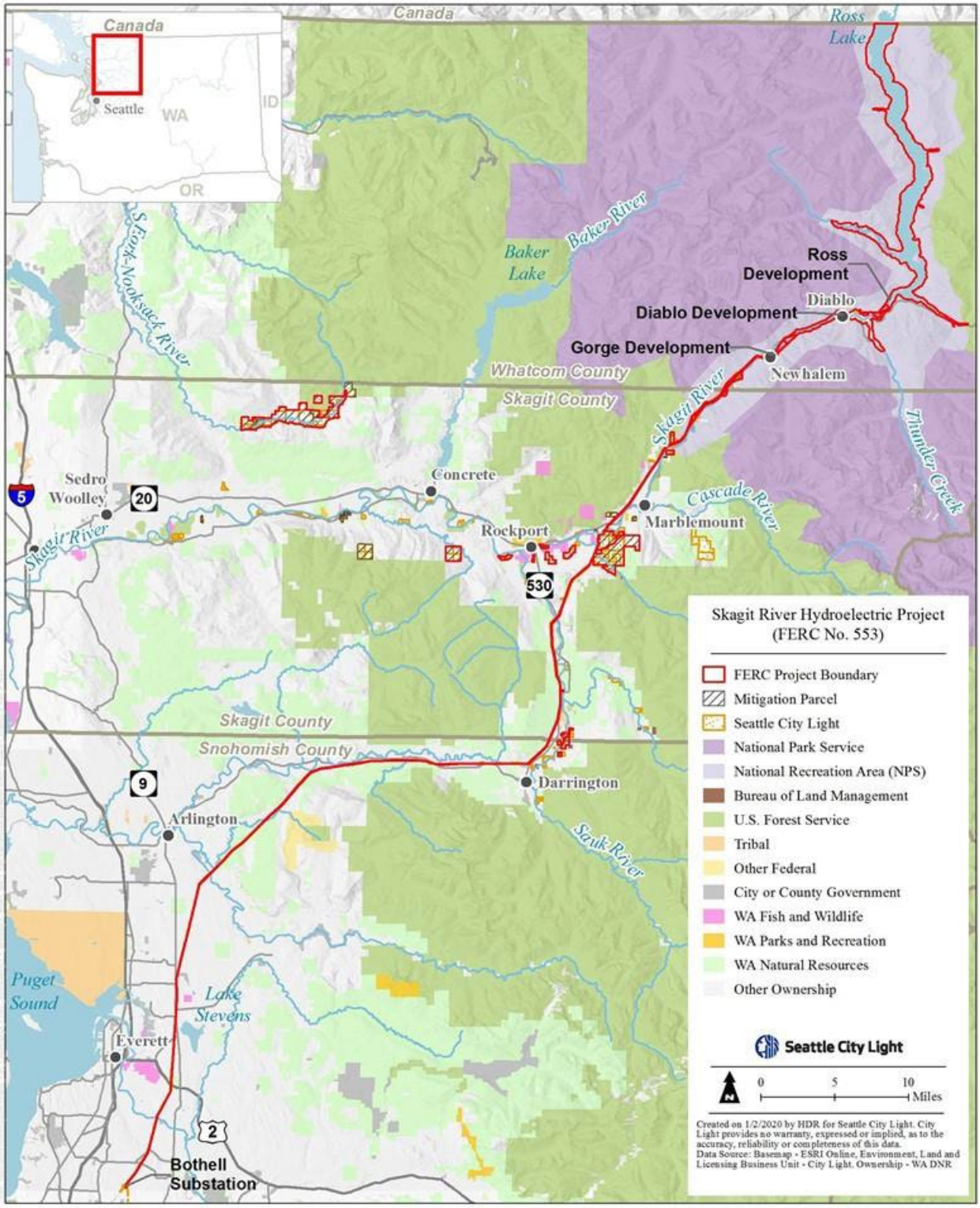

Figure 1. Location of the Skagit Project. (Source: PAD).

2.0 SCOPING

This Scoping Document 2 (SD2) is intended to advise participants as to the proposed scope of the NEPA document (i.e., the EA or EIS). This document contains: (1) a description of the scoping process and current processing schedule for the development of the license application, (2) a description of the proposed action and alternatives, (3) a preliminary identification of environmental issues and proposed studies, and (4) 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 NEPA document;

- 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 the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 SCOPING COMMENTS

Commission staff issued SD1 on June 26, 2020, to enable resource agencies, Indian tribes, NGOs, and the public to more effectively participate in and contribute to the scoping process. In SD1, we requested clarification of preliminary issues concerning the Skagit Project and identification of any new issues that need to be addressed in the NEPA document. We revised SD1 based on the comments received

during the scoping period, which ended October 26, 2020. SD2 presents our current view of issues and alternatives to be considered in the NEPA document. To facilitate review, key changes to issues from SD1 are identified in bold and italicized type.

Written comments were received from the following entities:

COMMENTING ENTITY	***FILING DATE***
Skagit County Board of Commissioners	***September 16, 2020***
Skagit County Drainage and Irrigation Special Purpose Districts	***September 21, October 19, and October 21, 2020***
National Marine Fisheries Service	***October 22, 2020***
U.S. Forest Service	***October 23, 2020***
National Park Service	***October 23, 2020***
Skagit County	***October 23, 2020***
Seattle City Light	***October 23, 2020***
American Rivers and Trout Unlimited	***October 23, 2020***
National Parks Conservation Association	***October 23, 2020***
North Cascades Conservation Council	***October 26, 2020***
Washington Department of Ecology	***October 26, 2020***
Access Fund and Washington Climbers Coalition	***October 26, 2020***
U.S. Fish and Wildlife Service	***October 26, 2020***
Upper Skagit Indian Tribe	***October 26, 2020***
Swinomish Indian Tribal Community	***October 26, 2020***
American Whitewater	***October 26, 2020***
Nlaka'pamux Nation Tribal Council	***October 26, 2020***
U.S. Bureau of Indian Affairs	***October 26, 2020***
Washington Department of Fish and Wildlife	***October 26, 2020***
Sauk-Suiattle Indian Tribe	***October 26, 2020***
U.S. Army Corps of Engineers	***October 26 and 27, 2020***
Stillaguamish Indian Tribe	***October 28, 2020***

All comments received are part of the Commission's official record for the project. Information in the official file is available for review on the Commission's website at http://www.ferc.gov using the "eLibrary" link. At this time, the Commission has suspended access to the Commission's Public Reference Room due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19) issued by the President on March 13, 2020. For assistance, please contact FERC at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY).

2.2.1 Issues Raised During Scoping

The issues raised by participants in the scoping process are summarized and addressed below. Because the purpose of scoping is to identify issues to be analyzed in the environmental analysis, revisions to SD1 address only those comments related directly to the scope of the environmental issues. For example, we do not address comments that are recommendations for license conditions (e.g., development of long-term adaptive management and monitoring measures, resource management plans, etc.) and the future license term as the need for such environmental measures will be analyzed in the environmental analysis and the license term will be determined in any license order that is issued for the project. We also do not address comments or recommendations that are administrative in nature, such as requests for changes to the mailing list. Lastly, we do not address comments on the need for environmental studies. The need for studies will be addressed during the ILP study planning process.

General Comments

Comment: Multiple commenters state that, although the SD1 indicates that the Commission intends to waive the requirements for scoping meetings due to the Covid-19 pandemic, these meetings are of critical importance to the relicensing process and every effort should be made to replace them with a virtual meeting. Accordingly, the commenters encourage the Commission to hold virtual public scoping meetings or make other arrangements to hold scoping meetings and the site visit at the earliest possible time.

Response: As indicated in the SD1, in-person scoping meetings and a site visit were waived due to restrictions on large public gatherings; however, we would be open to holding a site visit for all licensing participants at a later point in time when it is safe to do so. Nonetheless, there has been ample opportunity, especially considering the 60-day extension of the scoping comment period and the extensive comments that have been filed, for all interested stakeholders to comment on the scope of environmental issues for the project. Conducting virtual scoping meetings now would unduly delay the study planning process. Therefore, we do not intend to hold virtual or in-person scoping meetings.

Comment: Multiple commenters disagree that an EA is appropriate for the project and instead believe that the Commission should prepare an EIS.

Response: Commission staff will decide whether to prepare an EA or EIS after the

license application is filed and we fully understand the scope of effects and measures under consideration.

Comment: The Sauk-Suiattle Indian Tribe (Sauk-Suiattle Tribe) recommends that the pre-project conditions that existed at the time of the signing of the 1855 Point Elliott Treaty as well as the existing condition of the project area be considered in staff's analysis of project effects.

Response: The baseline that the Commission uses to evaluate project effects at relicensing is the project as it exists today, not pre-project conditions. The Commission's choice of current environmental conditions as the baseline for environmental analysis in relicense cases was affirmed in American Rivers v. FERC, 187 F.3d 1007, amended and rehearing denied, 201 F.3d 1186 (9th Cir., 1999); Conservation Law Foundation v. FERC, 216 F.3d 41 (D.C. Cir. 2000).

Comment: The Swinomish Indian Tribal Community (Swinomish Tribe) states that "the FPA does not recognize or adequately provide for the co-management authority that the Tribe shares with the Washington Department of Fish & Wildlife pursuant to U.S. v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974)." For example, the tribe states that, even though it is considered a co-manager of environmental resources, it is not afforded the same section 10(j) authority under the FPA as Washington Department of Fish and Wildlife. Accordingly, the Swinomish Tribe states that in order for FERC to fulfill its trust responsibility, it should treat the Tribe's section 10(a) recommendations for fish, wildlife, and other resources subject to the Tribe's treaty rights, "on par legally" as section 10(j) recommendations submitted by state and federal resource agencies. The Swinomish Tribe requests that FERC agree to engage in government-to-government consultation prior to making any findings or determinations on recommendations submitted under section 10(a) by the Tribe for protection, mitigation, and enhancement of fishery, aquatic, wildlife, or other environmental resources.

Response: Section 10(j) of the FPA requires the Commission to: include license conditions for the protection, mitigation, and enhancement of fish and wildlife resources based on the recommendations of fish and wildlife agencies and to attempt to resolve inconsistencies between agency recommendations and applicable law, giving due weight to the recommendations, expertise, and statutory responsibilities of the fish and wildlife agencies. A fish and wildlife agency "means the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the state agency in charge of administrative management over fish and wildlife resources of the state in which a proposed hydropower project is located" [18 CFR § 4.30(b)(9)(i)]. Although Indian

tribes and land management agencies (such as Forest Service) also have management authority over fish and wildlife resources, these entities are not considered 10(j) agencies, and therefore, are not subject to the provisions of section 10(j). However, as articulated in the Commission's Policy Statement on Consultation with Indian Tribes, the Commission is committed to promoting a government-to-government relationship between itself and federally recognized Indian tribes to assure tribal issues and interests are considered in making decisions (18 C.F.R. § 2.1c). To that end, Commission staff will endeavor to engage in consultation with such tribes, subject to the Commission's rules regarding off-the-record communications, applicable statutes, and licensing processes.

Proposed Action and Alternatives

Comment: The Upper Skagit Indian Tribe (Upper Skagit Tribe) states that it is unclear whether the no-action alternative includes the High Ross project or the 2013 license amendment to construct a second power tunnel at the Gorge Development. The Nlaka'pamux Nation Tribal Council (Nlaka'pamux Nation) states that the High Ross Treaty is in effect until January 1, 2066, but could expire during the term of the next license depending on the length of the license term. The Nlaka'pamux states that raising Ross Dam would have significant impacts on its interests, and therefore, the EA should consider the potential effects of the expiration of the High Ross Treaty.

Response: On April 2, 1984, President Reagan signed "A Treaty Between the United States and Canada Relating to the Skagit River and Ross Lake in the State of Washington, and the Seven Mile Reservoir on the Pend D'Oreille River in the Province of British Columbia" (High Ross Treaty). The primary purpose of the treaty was to provide the necessary legal bases for an arrangement whereby City Light would refrain from raising Ross Dam in return for a guaranteed long-term supply of electrical power from the Province of British Columbia (British Columbia). The treaty authorizes City Light to raise Ross Dam only if British Columbia discontinues its obligation, undertaken in a separate agreement between British Columbia and City Light, to deliver an equivalent amount of power to City Light. There is no reason to believe that the agreement between British Columbia and City Light will be discontinued. Therefore, the no-action alternative will reflect the project as currently constructed and operated. Any proposals to modify the treaty or raise Ross Dam over the term of any new license issued for the project would be considered by the Commission if and when they are proposed.

City Light indicates in the PAD that, although the Gorge second power tunnel project was authorized in a 2013 license amendment, it has not constructed the project

due to economic reasons and it is currently evaluating whether it will continue to propose the project moving forward. Therefore, the no-action alternative will not include the Gorge second power tunnel. We expect City Light to explain its plans for the second power tunnel in the license application and any effects of such construction would be considered in light of the relicensing proposal

Comment: The Upper Skagit Tribe disagrees with the SD1 proposal to eliminate a non-power license or project decommissioning as reasonable alternatives. The Upper Skagit Tribe states that the extensive direct and cumulative effects of operating Gorge Dam on fish passage, the recovery of listed salmon and steelhead, and wildlife connectivity cannot be mitigated and therefore the Gorge Development should be decommissioned. American Whitewater states that it would like to include Gorge Dam removal as a reasonable alternative to be evaluated during relicensing.

Response: As the Commission has previously held in its policy statement on the matter, decommissioning is not a reasonable alternative to relicensing in most cases, when appropriate protection, mitigation, and enhancement measures are available. In their scoping comments and study requests, the Upper Skagit Tribe identifies a number of measures that could be included in a new license to address fish passage, promote the recovery of salmon and steelhead, and improve wildlife habitat at the project. Examples of these include: installing fish passage, providing instream flows in the Gorge bypass, providing geomorphological process flows and downstream fish migration flows, installing measures to reduce entrainment and spill, altering ramping rates and reservoir drawdowns to ensure ecological integrity, and implementing beaver relocation programs and improving wildlife habitat connectivity around the project. Because there are numerous potential measures that could be implemented at the Gorge Development to protect and enhance fish and wildlife resources, including the recovery of listed salmon and steelhead, we do not consider Gorge Development decommissioning as a reasonable alternative to relicensing.

<u>Project Facilities</u>

Comment: FWS states that the project description shown in figure 1 and described on page 8 of SD1 does not show or describe the full geographic extent of project effects that should be included in the NEPA analysis. FWS believes that the project affects the Skagit River from the headwaters in Canada downstream to the estuary, and therefore, the project description and figure should be revised to show this entire area. The North Cascades Conservation Council (Council) comments that the analysis of effects should not be confined to the project boundaries.

Response*: *The project description and figure 1 only describe the licensed project facilities and show their general location. These sections of the scoping document are not intended to describe the extent of project effects on environmental resources; therefore, there is no reason to modify the project description or figure 1 in SD2. As discussed further below, the analysis of project effects is not constrained by the project's boundaries.

Comment: The Council states that the description of project facilities in section 3.1 does not mention that the project includes more than 3,000 acres of wildlife mitigation lands that will continue to be owned and managed as part of the new license. The Council requests that section 3.1 be modified to include these lands. The Upper Skagit Tribe states that City Light is currently acquiring more mitigation lands under the existing license and the SD2 should clarify which parcels of the fish and wildlife mitigation lands and recreation sites are included in the no-action alternative.

Response: Section 3.1.1 already describes the licensed project recreation facilities; however, we have updated this description based on City Light's comments on SD1. The project recreation facilities described in section 3.1.1 of SD2 are part of the no-action alternative.

The project currently includes 9,300 acres of fish and wildlife mitigation lands that City Light has acquired and are currently included in the project boundary. These lands will be included in the no-action alternative, and we have revised section 3.1.1 to include these acreages. All project lands and mitigation parcels are shown on maps in Appendix B of the PAD. The maps also show mitigation parcels that City Light has recently acquired, but are not currently in the approved project boundary.[6] The maps in Appendix B of the PAD sufficiently identify which parcels are currently in the project boundary and we see no reason to include the maps or to attempt to describe the parcels in the text of SD2.

Should the Commission approve City's Light's changes to the project boundary, we expect City Light to reflect those changes in all relevant licensing documents moving forward. Any modifications to the approved project boundary that occur between now and the filing of the final license application would also be part of the no-action alternative.

---

[6] On April 30, 2020, City Light filed an amendment to the project boundary to incorporate newly acquired fish and wildlife mitigation lands. Commission action on the amendment is still pending.

Comment: The Forest Service states that it is unclear why City Light proposes to prepare management plans as environmental measures and why the content of the plans is not currently considered a change to project operations. The Forest Service asserts that management plan activities to be implemented on National Forest System lands that differ from normal project operation and maintenance activities might require evaluation in accordance with NEPA and should be disclosed and evaluated during the licensing process.

Response: It is common for licensees of hydroelectric projects to propose developing or modifying resource management plans as environmental measures to protect, mitigate, or enhance resources affected by the project. Commission staff encourages licensees to file such plans with the license application so stakeholders can review and comment on the proposed plans and the Commission can evaluate the environmental effects, benefits, and costs of the plans.

Cumulative Effects

Comment: Several entities recommend expanding the cumulative effects analysis to include geology, soils, water quality and quantity, terrestrial, recreation, and cultural resources. For example, the Stillaguamish Indian Tribe requests that the geographic scope of analysis for cumulative effects on aquatic resources be expanded to include the Stillaguamish River Basin because the transmission line corridor is also located in that basin. The Upper Skagit Tribe requests that SD2 include water quality and terrestrial resources as cumulatively affected resources. The Upper Skagit Tribe states that clean, pure water is required for the practice of Upper Skagit Tribe spiritual life, and that the project dams and operations obstruct flow and degrade shorelines, which affects water purity. The Upper Skagit Tribe states that mining in the Canadian portion of the Skagit River has caused metals to accumulate and cumulatively affect water quality in the project reservoirs.

Response: As discussed above, CEQ issued a final rule on July 16, 2020, revising the regulations under 40 C.F.R. Parts 1500 – 1518 that federal agencies use to implement NEPA. The revised regulations repealed the definition of cumulative effects and provides a new definition for effects to be considered in the environmental analysis. Accordingly, we have removed the discussion of cumulative effects from section 4.0 of SD2. Consistent with CEQ's revised regulations, Commission staff will consider and evaluate effects from the proposed action and alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. As noted below, the environmental analysis will assess the effects of project facilities and their operation and maintenance, which would include evaluating

the effects of the proposed action or alternatives on the environmental resources along the transmission line corridor in the Stillaguamish River Basin, and on water quality and terrestrial resources within and adjacent to the project reservoirs.

Comment: NPS states that it recognizes that SD1 was issued prior to CEQ revising the NEPA regulations and that its comments are intended to be consistent with the new regulations. NPS states that "what previously were considered cumulative impacts are recognized in these comments as reasonably foreseeable and having a reasonably close causal relationship to the proposed action or alternatives." Specifically, the NPS states that "the entrapment of sediment, the blocking of large woody debris, and the disruption to the natural hydrography of the Skagit River has resulted in substantial modifications to the physical dimensions of the Skagit River watershed below the hydro-project to Puget Sound. The impacts of the hydro-project coupled with reasonably foreseeable impacts that have a reasonably close causal relationship to the project stemming from road and railroad construction and maintenance, timber harvest, agriculture, and floodplain development give rise to an additional level of analysis as outlined in CEQ guidance found at Sec 1508.1."

Response: The specific project effects of sediment entrapment, blocking of woody debris, and modifications of stream flow on aquatic habitat conditions in the Skagit River are already included in the aquatic resource issues in section 4.1.4 of SD2. There is insufficient information at this time to determine to what extent project operation affects these resources downstream of the project and to what extent the non-project actions might interact with project-related effects. As indicated above, Commission staff's environmental analysis will identify those effects for each resource that are reasonably foreseeable and have a reasonably close causal relationship to the project.

Comment: The Nlaka'pamux Nation requests that cumulative effects on cultural resources, including Traditional Cultural Properties (TCPs), be assessed in the EA, including the incremental impacts that have occurred over time to cultural sites due to gradual erosion from reservoir operation at Ross Lake. In addition, the Nlaka'pamux Nation requests that the direct effects of the project, such as shoreline erosion from project operations and project-related road erosion, combined with erosion related to NPS facilities and roads and mining operations should be addressed in a cumulative effects analysis.

Response: Section 4.1.9 of the SD1 already includes the effects of project-related erosion on TCPs and cultural sites. In SD2, we have added project-related recreation and sedimentation impacts on TCPs and cultural sites. As explained above, we have

not determined to what extent the effects of non-project actions will be considered in the environmental analysis.

Climate Change

Comment: Multiple commenters state that the EA should include an analysis of climate change effects on water availability and other climate-change related impacts.

Response: The environmental analysis will consider recent versus historical records of stream flows and reservoir levels to determine if there are any trends in water availability that should be factored into the analysis of project operation (e.g., fisheries flows, reservoir levels for recreation, flood control). Currently, there are three operating stream gages on the Skagit River near the project. One is installed in the Upper Skagit River upstream of Ross Lake and began operating in 2019. The other two are located downstream of the Gorge Powerhouse at Newhalem and Marblemount. There are 111 consecutive years of flow records available for the Newhalem gage and 76 consecutive years of flow records for the Marblemount gage, which can be used in the analysis.

Geographic Scope of Project Effects

Comment: Multiple commenters request clarification of the Commission's geographic scope of analysis for all project effects. Some commenters specifically request that the geographic scope of project effects for all resource issues include all or portions of: (1) the entire Skagit River mainstem from the headwaters in Canada to the estuary, including all of the project reservoirs, (2) the estuary and marine environment in Puget Sound, (3) the 100-year floodplain along the river, (4) the affected areas of adjacent tributaries, (5) the transmission line corridor, and (6) the project mitigation lands.

Response: As stated above, the effects analysis will be limited to those changes to the environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. Therefore, the environmental analysis will consider the effects of project operation and management of project lands (including mitigation lands and the transmission line corridor) and waters (including the project reservoirs), and some portion of the Skagit River downstream of the project. While we have yet to determine just how far downstream the effects of project operation extend, the analysis of project effects would not likely include the entire length of the Skagit River from the headwaters to the estuary, the estuary and marine environment, and all adjacent tributaries because some of these areas are either too geographically remote or any effects occurring there

are the product of a lengthy causal chain making any such analysis meaningless.

Comment: Multiple commenters state that because the project is located in the middle of the Skagit River Watershed and Ross Lake extends into Canada, the Commission should coordinate with Canada and the Province of British Columbia through the development of a memorandum of understanding to assess transboundary issues and effects on environmental resources in Canada. For example, the FWS states that bull trout within Ross Lake migrate back and forth between the U.S. and Canada to spawn, rear, forage, and overwinter; and resources in both countries are affected by project operation.

Response: At this point, no Canadian governmental entity has expressed a desire to participate in the Skagit Project relicensing process. However, should they elect to do so, they would be welcomed to participate.

Proposed Modifications to Project Facilities and Operations

Comment: Multiple commenters assert that City Light's potential proposals for adding pumped storage at Ross Lake, dredging the Diablo tailwater, and constructing a new tour dock at Diablo Lake lack sufficient detail to determine their potential effects, environmental issues, and study needs. Therefore, the Commission should remove these future potential actions from consideration in the SD2 and conduct additional NEPA scoping if they are proposed. FWS requests that the list of resource issues in the SD2 be modified to specifically include the effects of these three potential actions on all applicable resources, including: water quality, fisheries and aquatic resources, terrestrial resources, and threatened and endangered species. The Nlaka'pamux Nation and the Upper Skagit Tribe recommend that the EA assess the effects of pumped storage on cultural resources and shoreline erosion and mass wasting patterns. The Upper Skagit Tribe also recommends assessing the effects of the proposed Diablo tailwater dredging on historical and culturally significant resources that exist in the area.

Response: If City Light proposes to include any of these actions as part of its relicensing proposal, then it would need to describe the actions and any associated environmental effects in detail in the license application as required by sections 5.18(b)(4) and 5.18(b)(5)(ii)(B) of the Commission's regulations. Consequently, as explained in SD1, staff expects City Light to collect any information necessary during pre-filing to evaluate the environmental effects of these actions, should they be proposed in the license application. In addition, all applicable resource issues in SD2 already specify that the environmental analysis would assess the effects of any potential

changes in project facilities or operations, which includes adding pumped storage at Ross Lake, dredging the Diablo tailwater, and constructing a new tour dock at Diablo Lake. Therefore, there is no need to modify the resource issues in SD2 to specifically include these actions. For these reasons, we did not remove the description of these potential actions from SD2, and we do not intend to conduct additional NEPA scoping for these actions should they be definitively proposed in the license application.

Geology and Soils

Comment: FWS states that the EA should analyze the range of flow scenarios and reservoir elevations where aggradation and degradation of in-channel substrates, shorelines, and streambanks occurs in response to flow and reservoir management. FWS indicates that it will need this information to understand where there are issues with fish passage and habitat degradation in relationship to native fish species and their food sources (including macroinvertebrates).

Response: We have added this issue to section 4.1.1 of the SD2.

Comment: The Forest Service states that the EA should address the effects of project operation and maintenance within the transmission line corridor, access roads, and other project areas on soil erosion and sedimentation.

Response: We have added this issue to section 4.1.1 of the SD2.

Water Quantity and Quality

Comment: FWS states that project operation and maintenance can affect Skagit River water quality and compliance with state water quality criteria. Additionally, water storage and spill can affect water levels and quantities in reservoirs and different stream and river reaches across the watershed. Therefore, FWS requests that the environment analysis considers both water quality and quantity.

The U.S. Army Corps of Engineers states that, although City Light is not currently proposing any changes to project operation, preliminary studies of anticipated changes in the future flow regime of the Skagit River indicate that high flow events will become more frequent and occur earlier in the year. The U.S. Army Corps of Engineers states that observed and predicted flood timing on reservoir operations should be evaluated in the EA.

Response: The SD1 already includes a water quality section that addresses the effects

of project construction, operation, and maintenance activities on water quality in the Skagit River including the project's three reservoirs. The water quality analysis will compare state water quality standards to water quality conditions under existing conditions, the proposed action, and alternatives to the proposed action.

Although the effects of project storage and spill operations on stream flows and reservoir levels would be assessed as part of the aquatic resource issues identified in section 4.1.4, we have added a water quantity section to SD2 to consider the effects of reservoir operations on flood control.

Comment: Multiple commenters request that the EA analyze additional water quality parameters including: (1) water temperatures in all project reservoirs, (2) nutrients in the project reservoirs and in the Skagit River below Gorge Dam, and (3) metals concentrations in the project reservoirs. The commenters also recommend that the EA evaluate the effects of mining and forest practices on water quality in the Upper Skagit River upstream of Ross Lake. The Council states that the environmental analysis should consider the effects of potential releases of toxic chemicals from mining waste in Canada into project waters, including consideration of any contingency plans needed to respond to a chemical release.

Response: We have added the additional water quality parameters to section 4.1.2 of SD2. The affected environment for water quality in the environmental assessment will describe existing water quality conditions in the project reservoirs, which would be indicative of any adverse water quality conditions originating in the Skagit River upstream. Assessing water quality conditions or a future potential release of toxic chemicals in the Canadian portion of the Skagit River is unrelated to project effects, speculative, and beyond the scope of the environmental analysis.

Fisheries and Aquatic Resources

Comment: The Upper Skagit Tribe requests that the EA evaluate the effects of project operation, specifically drawdowns in Gorge, Diablo, and Ross Reservoirs, on fish stranding and entrapment in the reservoirs.

Response: We have added this issue to section 4.1.4 of SD2.

Comment: The Upper Skagit Tribe requests that the EA evaluate the effects of project operation on backwater effects within reservoir tributaries, which can cause sediment accumulation and obstruct fish access to the tributaries.

Response: This issue is generally included in section 4.1.4 of SD2.

Comment: Multiple commenters request that the EA evaluate the effects of project operation on floodplain connectivity and determine the benefits of providing dedicated process flows to restore aquatic habitat and ecological processes in the Skagit River downstream of Gorge Dam.

Response: We have added these issues to section 4.1.4 of SD2.

Comment: The Upper Skagit Tribe requests that the EA evaluate the effects of the project on chum salmon spawning and rearing channels in the Skagit River downstream of Gorge Dam.

Response: This issue is generally included in section 4.1.4 of SD2.

Comment: Multiple commenters request that the EA address the effects of project operation, including ramping rates, on aquatic benthic macroinvertebrates in the Skagit River downstream of Gorge Dam.

Response: We have added this issue to section 4.1.4 of SD2.

Comment: Multiple commenters request that the EA analyze the effects of discharging cold water on macroinvertebrate and fish productivity in the Skagit River downstream of Gorge Dam.

Response: This issue is generally included in sections 4.1.2 and 4.1.4 of the SD2. The EA will evaluate the effects of the project on water temperatures in the Skagit River and compare those temperatures to state water quality criteria and the temperature tolerances of fish and other aquatic organisms.

Comment: The Upper Skagit Tribe requests that the EA analyze the effects of project operation (e.g., reservoir level fluctuations and drawdowns) on macroinvertebrate production in the project reservoirs.

Response: We have added this issue to the section 4.1.4 of SD2.

Comment: The Upper Skagit Tribe requests that we add the effects of sediment deposition in project reservoirs on primary and secondary production in the reservoirs as an issue in the SD2.

Response: The Upper Skagit Tribe provides no specific information or justification to explain why this is an issue that warrants analysis and we are not aware of any way to evaluate such an effect, nor do we understand how this issue relates to project operation. Therefore, we have not included this as an issue in SD2.

Comment: Multiple commenters request that the EA assess the effects of the project dams on the obstruction of large woody debris and sediment (including spawning gravel) transport, and the effects of such obstruction on aquatic habitat and the geomorphic and ecological processes of the Skagit River downstream of Gorge Dam.

Response: These issues are already included in section 4.1.4.

Comment: FWS requests that the aquatic resources issues be modified to include ongoing and future effects from the project on all aquatic species in the project area, including all native fish (not just resident and anadromous salmonids) and their food resources as well as amphibians, birds, etc.

Response: Section 4.1.4 already specifies that the environmental analysis will analyze project effects on all resident and anadromous fish species, which includes all native fish species and is not specific to salmonids. Project effects on amphibians and birds will be analyzed within the terrestrial resources section of the NEPA document.

Comment: FWS requests that SD2 include effects of project recreation on fisheries resources due to trampling of fish spawning redds or sedimentation of aquatic habitat. FWS also requests that SD2 include the effects of project lighting and noise on fish habitat and fish populations.

Response: We added these issues to section 4.1.4 of SD2.

Comment: FWS requests that SD2 include the effects of continued operation and maintenance of the three dams without fish passage on bull trout genetic diversity and potential bottlenecks that exist or may evolve in the future. FWS also requests that the EA analyze how bull trout and other fish species use the Gorge bypassed reach and other habitats such as tributary mouths and springs that are affected by project operation and maintenance.

Response: These issues are generally included in section 4.1.4.

Comment: FWS requests that the SD2 include the effects of implementing the Fisheries Settlement Agreement (FSA) Flow Plan (including any potential changes to

the flow plan) on bull trout both upstream and downstream of the dams.

Response: We have modified section 4.1.4 to clarify that the environmental analysis will assess the effects of the FSA Flow Plan on both resident and anadromous fish species (which includes bull trout) in the Skagit River. This would include how storage and release operations to implement the FSA Flow Plan affect bull trout upstream of the dams.

Terrestrial Resources

Comment: FWS recommends that the terrestrial resources section of SD2 include the following: "the current and future (30-50 years) effects associated with the Project being within key connectivity corridors for amphibians, birds (loons, migratory songbirds, owls, raptors, and other Pacific Flyway species), carnivores (e.g., wolf, bear, lynx, etc.) and their prey species (e.g., elk, deer, etc.)." The Sauk-Suiattle Tribe recommends the EA evaluate wildlife habitat connectivity and migration corridors and their relationship to project mitigation lands.

Response: We modified section 4.1.5 to include the effects of project operation and management of project lands on wildlife habitat connectivity and wildlife migration and movement.

Comment: The Sauk-Suiattle Tribe, FWS, and the National Park Conservation Association request that the environmental analysis examine how well project mitigation lands acquired under the 1991 mitigation package and settlement agreement achieved their desired goals and obligations and whether additional measures are needed.

Response: This issue is already included in section 4.1.5.

Comment: The Sauk-Suiattle Tribe states the EA should study and identify the current status of vegetation, terrestrial habitat, and wildlife species in the transmission line corridor.

Response: The Terrestrial Resources section of the environmental analysis will describe existing vegetation, terrestrial habitat, and wildlife species on project land, including the transmission line corridor.

Comment: The Forest Service recommends that the EA address the effects of flow regulation on the pattern, recruitment, and species diversity of aquatic and riparian

vegetation communities along the shoreline of the Skagit River from the project downstream to the Sauk River confluence.

Response: Section 4.1.5 already addresses effects of continued or modified project operations on littoral, wetland, emergent, and riparian habitats, which includes the riparian zone of the Skagit River. The downstream extent of that analysis has yet to be determined. For clarity, we modified section 4.1.5 to clarify the analysis would include the pattern, recruitment, and species diversity of the riparian communities.

Comment: FWS recommends that the EA analyze effects of project operation and maintenance on the introduction and spread of invasive weeds and the effects of invasive species on native plants.

Response: Section 4.1.5 already includes the effects of project operation and maintenance on the introduction and spread of invasive plants.

Threatened and Endangered Species

Comment: The Upper Skagit Tribe states that the EA should address all species listed under the Endangered Species Act (ESA).

Response: The environmental analysis will address all ESA-listed species and critical habitats that occur at the project. The preliminary list of species included in section 4.1.6 of SD2 is based on the FWS's Information for Planning and Consultation (IPaC) species list included in the PAD; however, section 4.1.6 excludes two species (i.e., North American wolverine and gray wolf) that were recently withdrawn from protection under the ESA. Commission staff will request updated species lists from FWS and NMFS at the time of the NEPA analysis.

Recreation

Comment: NPS comments that many NPS facilities within the project boundary are affected by the presence and on-going operation of the project and recommends that staff's environmental analysis consider project effects on the recreation experience of those who use NPS facilities within the project boundary, as well as the NPS facilities themselves. To ensure that these potential impacts are adequately addressed, NPS recommends the following modifications to the recreation resources section of SD1:

- ***Modify Bullet 1 of Section 4.26 to include effects on NPS recreation facilities in the Ross Lake NRA and the adequacy of recreational access and facilities in***

meeting current and future demand.

- ***Modify Bullet 3 of Section 4.26 to include NPS recreation facilities both within and adjacent to the project boundary in addressing reservoir-level fluctuations and other project effects.***
- ***Modify Bullet 4 of Section 4.26 to include the effects of project improvements on NPS lands and management.***
- ***Add three new issues to Section 4.26 that include: (1) the effects of continued and proposed project operation and maintenance on recreational access and use, including river-based recreation opportunities downstream of the Gorge Powerhouse within the project area; (2) the effects of continuing project operation and proposed project changes, including sediment management and sedimentation, on access to recreation facilities in the Ross Lake NRA; and (3) the effects of recreation on natural and cultural resources.***

Response: We have incorporated the recommended modifications to section 4.1.7 of SD2; the effects of recreation visitors on cultural resources is included in section 4.1.9.

Comment: The Upper Skagit Tribe states that the project transmission line runs parallel to and crosses the Sauk River, which is federally designated as a Wild and Scenic River. Therefore, SD2 should include the effects of the transmission line on the Sauk Wild and Scenic River corridor.

Response: The project transmission line existed prior to the Sauk River being designated as a Wild and Scenic River. Therefore, the existence of the transmission has no effect on the values for which the segment was designated. We modified section 4.1.7 to include the effects of any proposed changes to the project transmission line and rights-of-way maintenance on the Sauk Wild and Scenic River corridor.

Comment: City Light recommends the following corrections to the description of existing project recreation facilities: (1) the West and East Boat Launches are not open to the public as stated in the SD1, but only support generation operations; (2) at the Diablo Townsite, trailhead parking and signage for Sourdough Mountain and Stetattle Creek Trails are operated and maintained by the NPS, and City Light only maintains the trailhead parking areas insofar as they are part of the project road network and are not required by the license to provide parking for trailheads since the trailheads do not provide access to project-related recreational opportunities; and (3) while City Light provided funds for the construction of the Sauk and Skagit River Boat Launches as a requirement of the existing license, City Light is not required to operate and maintain these sites that are owned and managed by the Forest Service, and therefore, City Light does not fund the operation or maintenance of these facilities as

indicated in the SD1.

Response: We made these corrections in section 3.1.1 of SD2.

<u>Aesthetic Resources</u>

Comment: The NPS recommends modifying bullet 4 in section 4.2.7 of SD1 to include the effects of recreational boating on noise levels within the Ross Lake NRA.

Response: We added this issue to section 4.1.8 of SD2.

Comment: The Forest Service states that the EA should address the effects of the flow management on shoreline vegetation and the effects of vegetation management along the transmission line on the visual quality of the Skagit Wild and Scenic River corridor from Bacon Creek to the confluence with the Sauk River, and all sections of the powerline visible from the Sauk Wild and Scenic River corridor.

Response: As noted above, the project and its transmission line existed prior to the Sauk River being designated as a Wild and Scenic River. Therefore, the existence of the project and its transmission line has no effect on the values for which these segments were designated. Section 4.1.5 already addresses effects of continued or modified project operations on littoral, wetland, emergent, and riparian habitats, which includes the riparian zone of the Skagit River within the wild and scenic river segment. We modified section 4.1.7 to include the effects of any proposed changes to the project transmission line and rights-of-way maintenance on the Sauk Wild and Scenic River corridor.

<u>Cultural Resources</u>

Comment: The Nlaka'pamux Nation recommends that staff's environmental analysis include an assessment of continuing project impacts on Nlaka'pamux Nation TCPs that are eligible for listing in the National Register of Historic Places (National Register). The Nlaka'pamux Nation specifically states that Ross Lake fluctuations cause erosion that threatens and reduces access to important Nlaka'pamux Nation cultural sites and lowers the water table thereby impacting culturally important plants. The Nlaka'pamux Nation adds that project recreation-related impacts include increased use and maintenance activities that compact the soil causing run off and erosion of cultural sites; increased use of upland areas by hikers and NPS personnel that disturb Nlaka'pamux Nation resources and traditional practices; the possible construction of new trails over indigenous trails; and increased access to previously-

secluded sacred sites.

Response: Section 4.1.9 already includes the effects of reservoir fluctuations on cultural resources, including TCPs. We have added the effects of maintenance activities and recreational use on cultural resources and TCPs.

Comment: The Nlaka'pamux Nation and Upper Skagit Tribe recommend that the EA assess the impacts of transmission line corridors on cultural resources, including the ability to exercise tribal treaty rights.

Response: Sections 4.1.9 already includes an assessment of project effects on cultural resources and TCPs, and section 4.1.7 includes the effects of project operation on access and use of project lands, which would include an assessment of any proposed changes to the transmission line or their rights-of-way management on the tribe's ability to exercise hunting, fishing, plant gathering, and other traditional practices.

<u>Socioeconomic Resources</u>

Comment: The Swinomish Tribe requests that the EA include an Environmental Justice analysis because they are concerned that the project could disproportionately affect tribal communities, especially regarding treaty fishing, hunting and gathering rights, and cultural and spiritual resources and practices.

Response: We have added project effects on environmental justice communities to section 4.1.10 of SD2 (Socioeconomics).

Comment: The Swinomish Tribe and the Upper Skagit Tribe request that the environmental analysis assess the economic effects from the decline of Skagit River salmon and steelhead populations and habitat on tribal well-being, particularly in regard to treaty rights and subsistence, ceremonial and commercial fishing, and other activities that support the tribe's economy.

Response: The environmental analysis will assess the effects of the project on salmon and steelhead populations and habitat. However, in addition to any potential effects attributed to the project, there are numerous other non-project factors that have affected salmon and steelhead populations in the Skagit River over time, including, but not limited to: fish harvest, predation, droughts, floods, disease, road construction, water withdrawals, agriculture and forest practices, fisheries management practices, fish hatchery production, estuary development, and ocean productivity/marine survival rates. Attempting to determine whether and to what extent the project contributed to

the decline of anadromous fish populations relative to other non-project factors, and developing an economic cost for such declines, would be speculative and beyond the scope of the NEPA analysis. For these reasons, the environmental analysis will not assess the effects of any decline of salmon and steelhead populations in the Skagit River Basin on the tribe's economy.

Comment: The Skagit Board of Commissioners requests that the EA address the effects on the local economy of City Light's acquisition of about 11,000 acres of project fish and wildlife mitigations lands under the existing license due to removal of these lands from the county tax base and agricultural production. The Skagit Board of Commissioners also requests that the EA evaluate the need for additional local government funding to deal with inadequate management of the lands, including problems such as invasive weeds, illegal dumping, and illegal drug activity on project lands.

Response: We modified section 4.1.10 to include the effects of any proposed modifications to the project on the local economy and the demand placed on government services. The effects of management of the lands on invasive species and other terrestrial resources is included in section 4.1.5. However, the environmental analysis will not consider the effects of any reduction in tax revenues from lands being withdrawn from the county tax base because the tax impacts of a hydroelectric project are a matter of state law, and are not within the Commission's jurisdiction.[7]

Developmental Analysis

Comment: The Council states that if there is to be a comparison of alternatives in section 4.2 of SD1 then there should be estimates of the environmental benefits as well as costs in section 4.3.

Response: The developmental analysis will summarize the costs of implementing proposed and/or recommended measures. The environmental analysis will assess the environmental benefits and costs of the no-action alternative, proposed action, and alternatives to the proposed action. Both the developmental and environmental costs

---

[7] ***See, e.g., New York Power Auth., 118 FERC ¶ 61,206, at P 87 (2007) (citing City of Tacoma, 84 FERC ¶ 61,037, at 61,142, reh'g denied, 85 FERC ¶ 61,020 (1998) (declining to require licensee to compensate county for lost tax revenues); FPL Energy Maine Hydro, LLC, 106 FERC ¶ 61,038, at P 58 (2004) (rejecting request that local government be compensated for loss of future tax revenues upon cessation of operations of project)).***

and benefits will be summarized in the Comprehensive Development section of the environmental analysis.

<u>Comprehensive Plans</u>

Comments: NMFS requests that the list of comprehensive plans in SD1 be updated to include the recent plans it submitted to the Commission.

Response: We have updated the SD2 to include the plans that were recently submitted by NMFS and approved by the Commission as comprehensive plans under section 10(a)(2)(A) of the FPA.

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 Skagit Project would continue to operate as required by the current project license. 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

The project consists of three hydroelectric developments, about 135 miles of transmission line, two company towns (i.e., Newhalem and Diablo),[8] and numerous recreation and interpretive facilities. ***The project also includes 9,300 acres of fish and wildlife mitigation land.[9] These lands are located within the Skagit, Sauk, and South Fork Nooksack River watersheds***.

Ross Development

The Ross Development is located at river mile (RM) 105.3 on the Skagit River and consists of: (1) a 540-foot-high, 1,300-foot-long concrete arch and gravity dam with two spillways, each of which has six 20-foot-high, 19.5-foot-wide radial tainter gates, two butterfly valves at an elevation of 1,340 feet, and two jet valves at elevations of 1,269 and 1,254 feet;[10] (2) the 11,680-surface-acre Ross Lake with a storage capacity of 1,435,000 acre-feet at normal maximum water surface elevation of 1,602.5 feet; (3) two

[8] The towns, supported and maintained by City Light, include office buildings, housing, and a meeting/conference center for City Light staff, but they also include additional facilities for the public such as museums, restrooms, interpretive sites, artwork, etc.

[9] ***On April 30, 2020, City Light filed a proposed amendment to the project boundary to include about 1,500 acres of additional fish and wildlife mitigation lands it has recently acquired.***

[10] Unless otherwise noted, elevations are referenced to City of Seattle Datum.

bifurcated intake structures with four 20-foot-wide, 198.13-foot-long openings and trashracks; (4) one 1,800-foot-long and one 1,634-foot-long, 24.5-foot-diameter concrete-lined power tunnels; (5) four 16-foot-diameter, 350-foot-long penstocks; (6) a powerhouse containing four generating units with a total authorized installed capacity of 338.625 MW; (7) two 230-kilovolt (kV), 3.8-mile-long transmission lines extending from the power plant to Diablo Switchyard; and (8) appurtenant facilities.

Diablo Development

The Diablo Development is located at RM 101 on the Skagit River and consists of: (1) a 389-foot-high, 1,180-foot-long concrete arch and gravity dam, with a northern spillway that has 12 19-foot-tall, 20-foot-wide radial tainter gates and a southern spillway with seven 19-foot-high, 20-foot-wide radial tainter gates, and a valve house containing three butterfly valves and one Larner Johnson type valve at an elevation of 1,047 feet; (2) the 770-surface-acre Diablo Lake with a gross storage capacity of 50,000 acre-feet at normal maximum water surface elevation of 1,205 feet; (3) two bifurcated intake structures with four approximately 16.75- to 18.75-foot-wide, 153.71-foot-long openings and trashracks; (4) a 19.5-foot-diameter, 1,990-foot-long power tunnel, of which 1,800 feet is concrete-lined and the other 190 feet is steel-lined; (5) two 15-foot-diameter penstocks and two 5-foot-diameter penstocks each 290 feet long; (6) a surge tank; (7) a powerhouse containing four generating units with a total authorized installed capacity of 152.8 MW; (8) a switchyard; (9) a 230-kV, 5.8-mile-long transmission line extending from Diablo Switchyard to the Gorge Switchyard; (10) three 230-kV, 87.5-mile-long transmission lines running from Diablo Switchyard to Bothell Substation; and (11) appurtenant facilities.

Gorge Development

The Gorge Development is located at RM 96.5 on the Skagit River and consists of: (1) a 300-foot-high, 670-foot-long combination concrete arch and gravity dam with a 94-foot-wide spillway that has two 50-foot-high, 47-foot-wide fixed wheel gates and a log chute; (2) the 240-surface-acre Gorge Lake with a gross storage capacity of 8,500 acre-feet at normal maximum water surface elevation of 875 feet; (3) a bifurcated intake structure with two 20-foot-wide, 88.9-foot-long openings and trashracks; (4) a 20.5-foot-diameter, 11,000-foot-long concrete-lined power tunnel; (5) three 10-foot-diameter penstocks and one 15-foot-diameter penstock, each 1,600 feet long and each fitted with a 10-foot-diameter butterfly biplane and relief valves; (6) a surge tank with riser; (7) a powerhouse containing four generating units with a total authorized installed capacity of 158.825 MW; (8) a switchyard; (9) a 230-kV, 36.8-mile-long transmission line extending from Gorge Switchyard to North Mountain Substation; and (10) appurtenant facilities.

Project Boundary

The existing project boundary encompasses 31,451 acres[11] and includes all project facilities, including the dams, powerhouses, reservoirs, power tunnels, switchyards, transmission lines, the towns of Newhalem and Diablo, as well as most of the fish and wildlife mitigation lands and several ***project and non-project*** recreation sites. The project boundary does not include all of the lands and waters around and within Ross Lake because the project boundary terminates at the U.S.-Canada border, thus excluding the portion of the reservoir within Canada. The Skagit Project boundary encompasses 19,281.93 acres of federal lands administered by NPS and the Forest Service.

Recreation Facilities

In addition to the power generation facilities, City Light operates and maintains several licensed recreation and interpretive facilities as part of the Skagit Project. Most of these facilities are located around the Diablo and Gorge Development reservoirs and along the Skagit River near the town of Newhalem.

North Cascades Environmental Learning Center

The North Cascades Environmental Learning Center (Environmental Learning Center) is a 16-building educational complex on the north shore of Diablo Lake which includes classrooms, a library, labs, lodging and housing facilities, a recycling and composting center, an outdoor amphitheater, outdoor shelters, a canoe and kayak dock, and various trails and paths.

Diablo Recreation and Visitor Facilities

Recreation and visitor facilities at Diablo Lake include the Skagit Tour Dock, the West Ferry Landing and the East Ferry Landing. The Skagit Tour Dock is located on the north shore of Diablo Lake and provides public boat tours of Diablo Lake during the

[11] City Light is currently amending the project boundary to include additional fish and wildlife mitigation lands that it has recently acquired under ongoing implementation of the existing license. The fish and wildlife mitigation land acreages presented herein are based on the project boundary described in the PAD and approved by the Commission's July 17, 2013 Order Amending License (*see* 144 FERC ¶ 62,044). It is expected that, as additional lands are incorporated into the project boundary, City Light will update the land acreages in relevant licensing documents moving forward.

summer months. The West Ferry Landing is located on the west end of the north shore of Diablo Lake and provides public access via ferry to the east end of the lake from June to the end of October. The East Ferry Landing is the eastern terminal for the Diablo Lake Ferry on the south shore of Diablo Lake with an attached canoe and kayak dock.

Newhalem Town Site and Gorge Lake and Powerhouse Facilities

Recreation facilities at the Newhalem Town Site and Gorge Lake and Powerhouse Facilities include the Gorge Lake Boat Launch, the Gorge Inn Museum, the Gorge Powerhouse Visitor Gallery, the Skagit Information Center, the Ladder Creek Falls Trail and Garden, and the Trail of the Cedars. The Gorge Lake Boat Launch is a paved launch site with a dock located adjacent the National Park Service-managed Gorge Lake Campground just downstream of the mouth of Stetattle Creek. The Gorge Inn Museum is located in the town of Newhalem and presents a social history of the Upper Skagit River Valley and the project. The Gorge Powerhouse Visitor Galley is located above the Gorge Powerhouse floor and offers views of the project generators and other equipment below as well as photographs and exhibits about the Skagit River Project to members of the public. The Skagit Information Center is located just off of SR-20 on Main Street in Newhalem providing restrooms, indoor and outdoor interpretive displays, art exhibits, and an information desk. The Ladder Creek Falls Trail and Garden is a loop trail originating at the Gorge Powerhouse that follows Ladder Creek through a hillside garden to Ladder Creek Falls. The trail includes interpretive signs and locations to view Ladder Creek Falls and colored lights illuminate the falls at night. The Trail of the Cedars is an interpretive trail providing pedestrian access from the town of Newhalem to Newhalem Powerhouse and a trail leading to the National Park Service-managed Newhalem Campground.

3.1.2 Existing Project Operation

The three project developments are hydraulically coordinated to operate as a single project. Project operation under the existing license is designed to meet four objectives, which are prioritized as follows: (1) flood control, (2) salmon and steelhead protection flows downstream of Gorge Powerhouse, (3) recreation, and (4) power generation. To achieve these goals, City Light must adhere to specific license requirements for Ross Lake levels and for stream flows and ramping rates downstream of Gorge Powerhouse.

City Light's typical operation of each project development is described below.

Ross Development

Ross Lake, the impoundment created by Ross Dam, is the largest of the three project reservoirs with a useable storage capacity of 1,052,000 acre-feet. City Light operates Ross Lake for storage for energy generation for the entire project as well as for providing downstream flood control and recreation at the lake.

Under existing operations, Ross Lake is drawn down on a yearly basis during winter to capture flows from spring runoff and to provide for downstream flood control. The drawdown typically begins after Labor Day and continues until the lake reaches its lowest level in late March or early April. The current license requires City Light to draw down Ross Lake to a level that provides 60,000 acre-feet of storage for flood control by November 15 and 120,000 acre-feet by December 1 and to maintain this available storage through March 15.

Ross Lake levels are also managed to meet recreational needs during the summer months. The current license requires City Light to fill Ross Lake as soon as possible after April 15, achieve full pool depth by July 31, and maintain full pool depth through Labor Day.[12]

City Light typically operates the Ross Powerhouse continuously to pass flow downstream, although it occasionally increases and decreases generation for short periods to help meet load-following demand or other project purposes.

Spills over Ross Dam are infrequent due to the large reservoir storage capacity. Spill is typically associated with gate testing and is usually short in duration and averages only a few cubic feet per second of flow per event.

Diablo Development

The Diablo Development is operated primarily to regulate flow between the Ross and Gorge Developments. Under normal operation, the reservoir level typically fluctuates between 4 and 5 feet per day. Because of its limited useable storage (8,860 acre-feet) relative to Ross Lake, the reservoir cannot absorb large fluctuations in flow under normal operations. Therefore, the Diablo Development spills much more frequently than the Ross Development, averaging about 30 days of spill per year. Spill generally occurs during periods of high runoff in the spring or early summer, or when the

[12] Reservoir elevation limits are subject to adequate runoff, anadromous fish protection flows downstream of the project, flood protection, spill minimization, and firm power generation needs.

powerhouse units are offline or additional flow is needed to meet fish protection flows downstream of the Gorge Powerhouse.

Like the Ross Powerhouse, City Light typically operates the Diablo Powerhouse continuously to pass flow downstream, although it occasionally increases and decreases generation for short periods to help meet load-following demand or other project purposes.

Gorge Development

The Gorge Development is operated primarily to regulate flows downstream of the powerhouse for salmon and steelhead protection in the upper Skagit River. The fish protection flow requirements are specified in the Revised FSA Flow Plan that was approved by a July 17, 2013 Commission order amending license. The fish protection flows are generally designed to: (1) limit maximum flows when salmon and steelhead are spawning to prevent redd building along the margins of the river where they could be subject to flow fluctuations or dewatering if flows are reduced, (2) maintain minimum flows throughout the incubation period to prevent dessication of redds, and (3) limit ramping to protect sensitive life stages of salmon and steelhead from rapid increases or decreases in river flows.

In order to comply with the requirements of the FSA Flow Plan, City Light operates Gorge Reservoir and Powerhouse to provide a continuous, stable flow regime in the upper Skagit River. City Light typically limits reservoir fluctuations to about 3 to 5 feet and does not typically operate the powerhouse to meet load-following demand.

The Gorge Development creates a 2.5-mile-long bypassed reach of the Skagit River between the dam and powerhouse. There are no minimum flow requirements in the existing license for the Gorge bypassed reach. Therefore, except during spill events at Gorge Dam, bypassed reach flow is limited to accretion flow, spill-gate seepage, tributary input, and precipitation runoff.

Spill at Gorge Dam into the 2.5-mile-long Gorge bypassed reach occurs any time that inflow exceeds the generating capacity of the powerhouse, or if additional flow is needed to meet fisheries protection flows in the upper Skagit River. These spill events typically occur between 14 and 61 days per year.

3.2 APPLICANT'S PROPOSAL

3.2.1 Proposed Project Facilities and Operations

City Light proposes to continue to operate and maintain the Skagit Project as is required in its existing license. City Light does not propose any new development or changes in project operation at this time. However, City Light is considering[13] several changes to project facilities and operations that it will evaluate during the licensing process. These include:

Diablo Tailwater Dredging

This activity would include dredging the main channel downstream of the confluence of Stetattle Creek to restore hydraulic head and associated hydroelectric generating capacity at the Diablo Powerhouse, which has been reduced by approximately three percent since original project construction due to sediment deposits from Stetattle Creek.

Diablo Lake Tour Dock

This activity would include constructing a new tour dock on the shoreline of Diablo Lake near the Environmental Learning Center. The current tour dock is located about one-half-mile from the check-in site for the tours and requires that participants either walk along a narrow road or take a shuttle bus. A new dock near the Environmental Learning Center would improve the tour experience for elderly and participants with disabilities by improving access and safety. City Light would remove the existing tour dock and repurpose or restore the existing site.

Ross Lake Pumped Storage

City Light is considering adding pumped storage capability at the Ross Development. This operational change would require installing new pumps directly below the existing low-level outlet, constructing a new single span of transmission line across the project tailrace, and deepening the Ross Powerhouse tailrace to provide sufficient depth for pump submergence. Under pumped storage operations, City Light would pump water from Diablo Reservoir into Ross Lake during periods of low energy demand and use the additional stored water in Ross Lake to generate electricity during periods of high demand. Pumped storage operations at the Ross Powerhouse would

[13] Although City Light is not currently proposing these activities, staff expects that City Light will collect any information necessary to evaluate the environmental effects of these actions in the license application, should they be proposed at that time.

cause greater daily fluctuations in Ross Lake and Diablo Reservoir levels than occurs under existing conditions.

The current license for the project expires on April 30, 2025.

3.2.2 Proposed Environmental Measures

The environmental measures that are currently proposed by City Light are described below.

Geology and Soils

- Update the existing Erosion Control Plan for reservoir shorelines and project roads.

- Develop a transmission line corridor management plan that includes best management practices to protect cultural and natural resources from the effects of soil erosion due to project operation and maintenance activities, and from indirect erosional effects of recreational use of roads and trails along the transmission line corridor.

Aquatic Resources

- Continue to implement the FSA Flow Plan and ramping rate limits to protect salmon and steelhead spawning, incubation, and rearing in the upper Skagit River downstream of Gorge Powerhouse.

- Develop an aquatic invasive species management plan.

Terrestrial Resources

- Develop vegetation management plans for townsites, transmission line corridors, and fish and wildlife mitigation lands to manage invasive species; protect rare, threatened, and endangered plant species; and protect streams, riparian areas, wetlands, and other priority habitats.

- Develop a wildfire management plan that includes fire prevention, response, and fuels management.

- Update the existing Wildlife Mitigation Lands Management Plan to incorporate newly acquired lands and include site-specific habitat management activities.

Recreation and Land Use

- Continue to provide Skagit tours and ferry services on Diablo Lake.

- Continue to operate the Environmental Learning Center and Skagit Information Center.

- Continue to maintain the Ladder Creek Falls Trail and Trail of the Cedars.

Aesthetic Resources

- Develop and implement a plan to reduce light pollution where safety considerations allow.

- Continue to consult with the National Park Service regarding visual impacts of project maintenance, lighting, and changes to project facilities within the Ross Lake NRA.

Cultural Resources

- Update and implement the Skagit Archaeological Resources Mitigation and Management Plan and the Historic Resources Mitigation and Management Plan.

3.3 PROJECT 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 all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement (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 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 Skagit 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.

3.5.2 Project Decommissioning

As the Commission has previously held, decommissioning is not a reasonable alternative to relicensing in most cases.[14] Decommissioning can be accomplished in different ways depending on the project, its environment, and the particular resource needs.[15] For these reasons, the Commission does not speculate about possible

[14] *See, e.g.*, *Eagle Crest Energy Co.,* 153 FERC ¶ 61,058, at P 67 (2015); *Public Utility District No. 1 of Pend Oreille County*, 112 FERC ¶ 61,055, at P 82 (2005); *Midwest Hydro, Inc.*, 111 FERC ¶ 61,327, at PP 35-38 (2005).

[15] In the unlikely event that the Commission denies relicensing a project or a licensee decides to surrender an existing project, the Commission must approve a surrender "upon such conditions with respect to the disposition of such works as may be

decommissioning measures at the time of relicensing, but rather waits until an applicant actually proposes to decommission a project, or a participant in a relicensing proceeding demonstrates that there are serious resource concerns that cannot be addressed with appropriate license measures and that make decommissioning a reasonable alternative.[16] City Light does not propose decommissioning, nor does the record to date demonstrate there are serious resource concerns that cannot be mitigated if the project is relicensed; as such, there is no reason, at this time, to include decommissioning as a reasonable alternative to be evaluated and studied as part of staff's NEPA analysis.

determined by the Commission." 18 C.F.R. § 6.2. This can include simply shutting down the power operations, removing all or parts of the project (including the dam), or restoring the site to its pre-project condition.

[16] *See generally Project Decommissioning at Relicensing; Policy Statement*, FERC Stats. & Regs., Regulations Preambles (1991-1996), ¶ 31,011 (1994); *see also City of Tacoma, Washington*, 110 FERC ¶ 61,140 (2005) (finding that unless and until the Commission has a specific decommissioning proposal, any further environmental analysis of the effects of project decommissioning would be both premature and speculative).

4.0 SCOPE OF RESOURCE ISSUES

4.1 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the NEPA document.[17] We have identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the Skagit Project. This list is not intended to be exhaustive or final, but contains the issues raised to date that could have substantial effects. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue.

4.1.1 Geologic and Soils Resources

- Effects of any proposed project construction and recreation-related activities on soil erosion and sedimentation.

- Effects of existing and any potential changes in project ***facilities and*** operation on shoreline stability of the reservoirs ***and streambanks and aggradation and degradation of in-channel substrates of tributaries to the project reservoirs and the Skagit River***.

- Effects of project operation and maintenance activities on ***soil erosion, sedimentation, and*** mass wasting along access roads and the transmission line corridor.

4.1.2 Water Quality

- Effects of existing and any potential changes in project ***facilities and*** operation on water quality in the three project reservoirs, including: ***nutrients, water temperatures, metals,*** fecal coliform, and turbidity levels in Ross Lake, and ***nutrients, water temperatures, metals,*** dissolved oxygen, and pH levels in Diablo and Gorge Reservoirs.

- Effects of ***existing and any potential changes in project facilities and*** operation on water quality in the upper Skagit River downstream of Gorge Dam (i.e., bypassed reach and full-flow reach below the powerhouse),

[17] ***Per CEQ's final rule (effective September 14, 2020), Commission staff will consider and evaluate effects that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action.***

including ***nutrients,*** water temperatures, dissolved oxygen, total dissolved gas, and turbidity levels.

4.1.3 Water Quantity

- ***Effect of project operation on flood control in the Skagit River.***

4.1.4 Fisheries and Aquatic Resources

- Effects of existing and any potential changes in project ***facilities and*** operation ***(e.g., reservoir levels)*** on resident fish habitat and populations, ***including foraging, movements, population connectivity, and spawning*** in the ***Skagit River, project reservoirs, and tributaries***.

- ***Effects of existing and any potential changes in project facilities and operation (e.g., reservoir levels) on the potential for resident fish stranding and entrapment in project reservoirs.***

- ***Effects of existing and any potential changes in project facilities and operation (e.g., reservoir level fluctuations and drawdowns) on macroinvertebrate production in the project reservoirs.***

- Effects of existing and any potential changes in project ***facilities and*** operation and large woody debris management within reservoirs on aquatic habitat in the reservoirs and Skagit River downstream of Gorge Dam.

- Effects of ***existing and any potential changes in project facilities and operation on*** sediment deposition in project reservoirs and any potential measures to address sedimentation (e.g., dredging) on resident fish species.

- ***Effects of existing and any potential changes in project facilities and operation, including ramping rates, on benthic macroinvertebrates in the Skagit River downstream of Gorge Dam.***

- Determination of benefits of providing minimum instream flows in the Gorge bypassed reach for resident and anadromous fish species.

- Determination of benefits of providing fish passage at the project dams for resident and anadromous fish species.

- ***Determination of benefits of providing dedicated flow releases to enhance aquatic habitat and ecologic processes in the Skagit River downstream of Gorge Dam.***

- Effects of existing and any potential changes to project ***facilities and*** operation, including flood control operations, on ***stream flows,*** aquatic habitat, sediment transport, ***off-channel habitats, flood plain connectivity, tributary accessibility,*** and other geomorphic processes of the Skagit River ***downstream of Gorge Dam***.

- Effects of existing and any potential changes to powerhouse ***facilities and*** operations at the three developments on resident fish entrainment injury and mortality.

- Adequacy of existing FSA Flow Plan at protecting ***resident and*** anadromous fish spawning, incubation, rearing, and outmigration life stages in the Skagit River.

- Adequacy of existing ramping rates to protect fisheries resources of the Skagit River.

- Effects of transmission line maintenance activities on fisheries and aquatic habitat in rivers, streams, and floodplains within the transmission line corridor.

- ***Effects of project recreation use on fisheries resources (e.g., disturbance of spawning redds in streams near project recreation facilities).***

- ***Effects of project noise and lighting on fish habitat and resident and anadromous fish populations.***

4.1.5 Terrestrial Resources

- Effects on the natural fire regime of the North Cascades National Park complex due to project-related fire management practices (e.g., fuels reduction treatments and suppression of naturally ignited fires) in forests surrounding project facilities, in order to protect lives and property.

- Effects of continued or modified project operations, including reservoir fluctuations, on littoral, wetland, emergent, and riparian habitats and associated wildlife, including wetland-dependent birds and amphibians.

- ***Effects of existing and any modified flow regulation on the pattern, establishment, and recruitment of riparian vegetation along the Skagit River.***

- Effects of existing and any potential changes to project facilities, operations, maintenance, and project-related recreation activities, on terrestrial wildlife, habitats ***and habitat connectivity***, ***wildlife migration and movement***, and vegetation communities, including sensitive plants and nesting northern goshawk.

- Effects of existing and any potential changes to project facilities, operations, maintenance, and project-related recreation activities, on the establishment, spread, and control of invasive plants.

- Effects of electrocution and collision hazards of existing and any new project transmission lines on eagles, waterfowl, and other birds.

- Adequacy of existing management plans or practices to protect terrestrial resources on the project's fish and wildlife mitigation lands.

4.1.6 Threatened and Endangered Species

- Effects of existing and any potential changes to project facilities or operations on Chinook salmon, steelhead, bull trout, grizzly bear, Canada lynx, northern spotted owl, marbled murrelet, ***streaked horned lark, yellow-billed cuckoo,*** and Oregon spotted frog, which are federally listed as threatened; ***dolly varden which is proposed for listing; and whitebark pine which is a candidate for listing***.

- ***Effects of existing and any potential changes to project facilities and operations on designated critical habitat for bull trout, Chinook salmon, steelhead, marbled murrelet, and northern spotted owl.***

4.1.7 Recreation and Land Use

- Effects of existing and any potential changes to project facilities, operations, ***and maintenance activities*** on recreational use ***and access*** in the project area, i***ncluding NPS recreation facilities in the Ross Lake National Recreation Area.***

- The adequacy and capacity of existing recreational facilities ***to meet current and future demand.***

- Effects of existing and any potential changes to project facilities and operations on angling and whitewater boating opportunities in the Gorge bypassed reach, and feasibility of providing minimum flows and access to enhance these opportunities.

- ***Effects of project-related sedimentation and any proposed sediment management activities on access to recreation facilities in the Ross Lake NRA.***

- Effects of activities related to road improvements and potential relocation of the Skagit Tour Ferry Dock on recreational access and use, ***including effects on National Park Service lands and management***.

- The consistency of continuing project operation, and any proposed project modifications, with recreation management goals and objectives of Federal and state comprehensive plans for the project area.

- ***Effects of any proposed changes to the project transmission line and rights-of-way maintenance on the Skagit River and Sauk River Wild and Scenic River corridors.***

4.1.8 Aesthetic Resources

- Effects of reservoir level fluctuations from existing and any potential changes to operations on the aesthetic resources.

- Effects of existing and any potential changes to project facilities on aesthetic resources.

- The consistency of continuing project operation and any proposed project modifications with visual quality management goals and objectives of

Federal and state comprehensive plans for the project area.

- Effects of existing and any potential changes to project facilities and operations and boat activity***, including recreational boating,*** on noise levels within the Ross Lake NRA.

- Effects of existing and any potential changes to project facilities lighting requirements on resources within the Ross Lake NRA.

4.1.9 Cultural Resources

- Effects of existing and any potential changes to project facilities; operations; including reservoir fluctuations, ***transmission line corridors, and maintenance activities;*** on historic properties and archaeological resources, including TCPs ***and the exercise of tribal treaty rights.***

- ***Effects of project-related recreational access and use on historic properties and archaeological resources, including TCPs.***

- ***Effects of project-related erosion, sedimentation, and any proposed sediment management activities on cultural resources.***

4.1.10 Socioeconomic Resources

- Effects of any proposed modifications to project facilities, ***operations, and maintenance (including fish and wildlife mitigations lands)*** on the local economy, infrastructure, and ***government*** services including employment, housing, transportation, and tourism.

- ***Effects of any potential changes to project facilities and operation regarding environmental justice considerations including any disproportionate effects on tribal communities.***

4.1.11 Developmental Resources

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

5.0 PROPOSED STUDIES

Depending upon the findings of studies completed by City Light and the recommendations of the consulted entities, City Light will consider, and may propose certain other measures to enhance environmental resources affected by the project as part of the proposed action. City Light's initial study proposals are identified by resource area in table 1. Detailed information on City Light's initial study proposals can be found in the PAD. Further studies may need to be added to this list based on comments provided to the Commission and City Light from interested participants, including Indian tribes.

Table 1. City Light's initial study proposals for the Skagit Project. (Source: PAD)

Resource Area	**Proposed Study**
General	
	Operations model to evaluate how alternative operational scenarios affect reservoir elevations, power generation, and outflows for each of the project developments under various operational constraints. The model will be used to assess how operations affect other environmental resources of the project area.
Geologic and Soils Resources	
	Reservoir shoreline erosion assessment to update prior inventory, assess currently known erosion sites and control measures, and identify any new erosion sites.
	Inventory the erosion and slope stability issues that overlap with project facilities, access roads, and transmission line corridors.
Water Quality	

Resource Area	Proposed Study
	Water quality monitoring study to assess water quality conditions in the three project reservoirs and the Skagit River downstream of Gorge Dam.
Aquatic Resources	
	Study of sediment deposition in select tributary deltas within project reservoirs
	Geomorphology study to provide information on geomorphic processes that influence aquatic habitat (e.g., channel configuration, gravel composition, large woody debris characteristics, off-channel habitat) in the Skagit River between Gorge Dam and the Sauk River confluence.
	Instream flow model to assess flow and aquatic habitat relationships in the Skagit River between Gorge Dam and the Sauk River confluence.
	Reservoir fish stranding and trapping study to assess native fish (i.e., rainbow trout, bull trout, and dolly varden) trapping and stranding risk within the three project reservoirs due to project operation.
Terrestrial Resources	
	Vegetation mapping to characterize the existing condition of vegetation resources within the project boundary and a surrounding 0.5-mile buffer.

Resource Area	Proposed Study
	Wetland assessment to characterize baseline conditions of wetlands within the project boundary and the Skagit River channel migration zone from the Gorge Powerhouse to the Sauk River confluence.
	Identify, characterize, and assess threats to rare, threatened, or endangered plant species and populations in areas within the project boundary or wildlife mitigation lands potentially affected by project-related operations, maintenance, and recreation.
	Invasive plants inventory to determine the location, extent, and dispersal vectors for non-native plants within the project boundary, associated risks to fish and wildlife habitat, and information for a long-term weed management plan.
	Marbled murrelet study to map suitable nesting habitat within the project boundary and wildlife mitigation lands, and determine whether this habitat is occupied by nesting murrelets.
	Golden eagle habitat analysis to map the intersection of migratory routes and suitable nesting and foraging habitats with project transmission line corridors, verify potential nesting and foraging habitats within powerline corridors, and determine potential use of corridors for foraging and threat of collision with transmission lines.
	Northern goshawk habitat analysis study to identify and map areas of suitable habitat within the project boundary and a surrounding 0.5-mile buffer.

Resource Area	Proposed Study
	Special-status amphibian study to identify areas of potentially suitable breeding habitat for Oregon and Columbia spotted frogs in wetland and littoral zones along the three project reservoirs, and assess breeding use of habitats by spotted frogs or other pond-breeding amphibians.
	Beaver habitat assessment to gage extent of beaver use of and impacts to chum salmon spawning channels, and to identify areas of potentially suitable and unoccupied beaver habitat on or near project lands for potential relocation of problem beavers within the watershed.
Recreation, Land Use, and Aesthetics	
	Recreation use and facility assessment to determine (1) preferences, attitudes and characteristics of recreation users, (2) the condition, accessibility and use effects of project recreation facilities, (3) current recreational use and activities, and (4) future recreation demand.
	Gorge bypass reach safety and whitewater boating assessment to evaluate the recreational whitewater boating potential under current conditions of the Gorge bypassed reach, and to evaluate the feasibility of expanding boating opportunities in this reach.
	Project facility lighting inventory to identify project facilities within the Ross Lake NRA that utilize outdoor lighting and describe the purpose and need for lighting at each project facility, and the characteristics of the lights being used.

Resource Area	Proposed Study
	Project operation sound assessment to identify project facilities and equipment that emit sound and quantify and model sound emissions from these sources to determine noise effects on the Ross Lake NRA.
Cultural Resources	
	Cultural resources data synthesis study to develop an understanding of the affected environment/current conditions for cultural resources within the study area and identify data gaps and the need for future study, consultation, or management plans.
	Cultural resources survey to identify cultural resources within the project's Area of Potential Affect (APE), identify potential effects on those cultural resources within the APE, and determine National Register eligibility of affected resources identified within the APE.
	Gorge bypass reach cultural resources survey to identify and assess the potential effects of project operation and maintenance on cultural resources within the Gorge bypassed reach that are included in or eligible for listing in the National Register.

6.0 CURRENT PROCESSING SCHEDULE

The decision on whether to prepare and EA or EIS will be determined after the license application is filed and we fully understand the scope of effects and measures under consideration.

A copy of the approved process plan, which has a complete list of relicensing milestones for the Skagit Project, including those for developing the license application, is attached as Appendix A to this SD2.

7.0 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. Staff has preliminarily identified and reviewed the plans listed below that may be relevant to the Skagit 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 https://www.ferc.gov/sites/default/files/2020-07/List%20of%20Comprehensive%20Plans_%20July%202020.pdf

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

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.

Forest Service. 1989. Okanogan National Forest land and resource management plan. Department of Agriculture, Okanogan, Washington.

Forest Service. 1990. Mt. Baker-Snoqualmie National Forest land and resource management plan. Department of Agriculture, Seattle, Washington. June 1990.

Interagency Committee for Outdoor Recreation. Washington State Comprehensive Outdoor Recreation Planning Document (SCORP): 2002-2007. Olympia, Washington. October 2002.

Interagency Committee for Outdoor Recreation. 1995. Washington State outdoor recreation and habitat: Assessment and policy plan 1995-2001. Tumwater, Washington. November 1995.

Interagency Committee for Outdoor Recreation. 1991. Washington State trails plan: policy and action document. Tumwater, Washington. June 1991.

National Marine Fisheries Service. 2019. ESA Recovery Plan for the Puget Sound

Steelhead Distinct Population Segment (Oncorhynchus mykiss). Seattle, Washington. December 2019.

National Marine Fisheries Service. 2006. Final Supplement to the Shared Strategy's Puget Sound Recovery Plan. Seattle, Washington. November 2006.

National Marine Fisheries Service. 2008. Recovery Plan for Southern Resident Killer Whales. Seattle, Washington. January 2008.

National Marine Fisheries Service. Pacific Fishery Management Council. 1978. Fishery management plan for commercial and recreational salmon fisheries off the coasts of Washington, Oregon, and California commencing in 1978. March 1978.

National Park Service. 1988. North Cascades National Park Complex General Management Plan: Lake Chelan National Recreation Area and North Cascades National Park. Department of the Interior, Sedro Woolley, Washington. June 29, 1988.

National Park Service. 1993. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.

National Park Service. 2005. North Cascades National Park Complex Fire Management Program. Sedro-Woolley, Washington. May 2005.

National Park Service. 2008. North Cascades National Park Complex Mountain Fishery Management Plan. Sedro-Woolley, Washington. June 2008.

National Park Service. 2011. North Cascades National Park Complex Invasive Non-Native Plant Management Plan. Sedro-Woolley, Washington. November 2011.

National Park Service. 2011. Ross Lake National Recreation Area General Management Plan. Department of the Interior, Seattle, Washington. 2011. 125

National Park Service. 2014. Mount Rainier and North Cascades National Park Complex Fisher Restoration Plan. Ashford and Sedro-Woolly, Washington. 2014.

Pacific Fishery Management Council. ***2014***. ***Eighteenth*** amendment to the fishery management plan for commercial and recreational salmon fisheries off the coasts of Washington, Oregon, and California. Portland, Oregon. ***September 2014***.

Shared Strategy for Puget Sound. 2007. Puget Sound Salmon Recovery Plan. Seattle, Washington. January 2007.

Skagit River System Cooperative and Washington Department of Fish and Wildlife. 2005. Skagit Chinook Recovery Plan. La Conner, Washington.

State of Washington. 1977. Statute establishing the State scenic river system, Chapter 79.72 RCW. Olympia, Washington.

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

U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

Washington Department of Ecology. 1994. State wetlands integration strategy. Olympia, Washington. December 1994.

Washington Department of Ecology. 1986. Application of shoreline management to hydroelectric developments. Olympia, Washington. September 1986.

Washington Department of Fisheries. 1987. Hydroelectric project assessment guidelines. Olympia, Washington.

Washington Department of Fish and Wildlife. 1997. Management recommendations for Washington's priority habitats: Riparian. Olympia, Washington. December 1997.

Washington Department of Fish and Wildlife. 2004. Management recommendations for Washington's priority species, Volume IV: Birds. Olympia, Washington. May 2004.

Washington Department of Fish and Wildlife. 2005. Washington's comprehensive wildlife conservation strategy. Olympia, Washington. September 19, 2005.

Washington Department of Game. 1987. Strategies for Washington's wildlife. Olympia, Washington. May 1987.

Washington Department of Natural Resources. 1987. State of Washington natural heritage plan. Olympia, Washington.

Washington Department of Natural Resources. 1997. Final habitat conservation plan. Olympia, Washington. September 1997.

Washington State Energy Office. 1992. Washington State hydropower development/resource protection plan. Olympia, Washington.

Washington State Parks and Recreation Commission. 1988. Washington State scenic river assessment. Olympia, Washington. September 1988.

Washington State Parks and Recreation Commission. 1988. Scenic rivers program - report. Olympia, Washington. January 29, 1988.

8.0 MAILING LIST

The list below is the Commission's official mailing list for the Skagit Project (FERC No. 553). If you want to receive future mailings for the Skagit Project and are not included in the list below, please send your request by email to FERCOnlineSupport@ferc.gov. All emailed requests to be added to the mailing list must clearly identify the following on the first page: Skagit River Project No. 553-235. You may use the same method if requesting removal from the mailing list below.

Register online at https://ferconline.ferc.gov/eRegistration.aspx 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 Skagit Project

David Fluharty North Cascades Conservation Council P.O. Box 95980 University Station Seattle, Washington 98145-2980	Bonneville Power Administration FERC Contact PO Box 3621 Portland, OR 97208-3621	Bureau of Reclamation Columbia-Cascades Area Office 1917 Marsh Road Yakima, Washington 98901-2058
Michael Haynes Director City of Seattle, City Light Department P.O. Box 34023 Seattle, Washington 98124-4023	Michelle Vargo Power Production Director City of Seattle, City Light Department 700 Fifth Ave Seattle, Washington 98124	Kimberly Pate Chief Dam Safety Engineer City of Seattle, City Light Department P.O. Box 34023 Seattle, Washington 98124-4023
Jay Fields Department of the Interior, Office of the Solicitor 805 SW Broadway Suite 600 Portland, OR 97205	Tyler Farmer Harrigan Leyh Farmer & Thomsen 999 Third Ave Suite 4400 Seattle, WA 98104	Donald R Clark 58468 Clark Cabin Road Rockport, WA 98283

Karen Taylor-Goodrich Superintendent North Cascades National Park Service Complex 810 State Route 20 Sedro-Woolley, WA 98284	Keith Kirkendall National Marine Fisheries Service 1201 NE Lloyd Blvd, Suite 1100 Portland, OR 97232	David Price NOAA/National Marine Fisheries Service 510 Desmond Drive, Suite 130 Lacey, WA 98503
Elizabeth Babcock NOAA/NMFS/WCR 7600 Sand Point Way NE Seattle, WA 98115	Steve Copps NOAA/NMFS/WCR 7600 Sand Point Way NE Seattle, WA 98115	Philip Fenner North Cascades Conservation Council 735 N 79th St. Seattle, WA 98103
Karen Gustin Superintendent Olympic National Park 600 East Park Avenue Port Angeles, WA 98362	Stan Walsh Environmental Services Manager Sauk-Suiattle Indian Tribe of Washington Skagit River System Cooperative P.O. Box 368 LaConner, WA 98257	Andrew Bearlin Capital Projects Coordinator Seattle City Light 700 Fifth Ave, Suite 3200 Seattle, WA 98124

Chris Townsend Director, Natural Resources Seattle City Light 700 5th Avenue, Suite 3341 Seattle, WA 98104	Stan Walsh Environmental Services Manager Swinomish Indian Tribal Community Skagit River System Cooperative P.O. Box 368 LaConner, WA 98257	U.S. Army Corps of Engineers Commander PO Box 2946 Portland, OR 97208-2946
Maria Cantwell Senator U.S. Senate 511 Hart Senate Office Bldg Washington, District of Columbia 20510	Upper Skagit Indian Tribe Office of Tribal Attorney 25944 Community Plaza Way Sedro-Woolley, WA 98284	USDA Forest Service Regional Hydropower Coordinator 1405 Emens Ave N Darrington, WA 98241-9502
Kristen Bonanno Region 6 Energy Coordinator USDA Forest Service PO Box 3623 Portland, OR 97208-3623	Bill Frymire Senior Counsel Washington Office of Attorney General PO Box 40100 Olympia, WA 00100	Washington Office of Archaeology SHPO PO Box 48343 Olympia, WA 98504-8343
Washington State Department of Agriculture 406 General Administration Building Olympia, WA 98504-0001	Washington State Department of Fish and Wildlife Chief Habitat Division 600 N. Capitol Way Olympia, WA 98504-0001	Neil Wise Washington Office of Attorney General PO Box 40100 Olympia, WA 98504-0100
Gary Engman Washington State Department of Fish and Wildlife Habitat Management Division 16018 Mill Creek Blvd., MS: TB-44 Mill Creek, WA 98021-2296	Einar Wold Chief Washington State Department of Fish and Wildlife 600 Capitol Way N. Olympia, WA 98501-1076	Brock Applegate Major Projects Mitigation Biologist Washington State Dept of Fish & Wildlife 16018 Mill Creek Boulevard Mill Creek, WA 98012
Washington Utilities and Transportation Commission PO Box 47250 Olympia, WA	Pat Stevenson Natural Resource Manager Stillaguamish Tribe Arlington, WA 98223.	

APPENDIX A
SKAGIT PROJECT PROCESS PLAN AND SCHEDULE

Shaded milestones are unnecessary if there are no study disputes. If the due date falls on a weekend or holiday, the due date is the following business day. Early filings or issuances will not result in changes to these deadlines.

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
City Light	File NOI/PAD	4/27/20	5.5, 5.6
FERC	Tribal Meetings	5/27/20	5.7
FERC	Issue Notice of Commencement of Proceeding and Scoping Document 1	6/26/20	5.8
FERC	Scoping Meetings (*Waived*)	N/A*	5.8(b)(viii)
All Stakeholders	File Comments on PAD/Scoping Document 1 and Study Requests	10/24/20	5.9
FERC	Issue Scoping Document 2 (if necessary)	12/8/20	5.10
City Light	File Proposed Study Plan	12/8/20	5.11(a)
All Stakeholders	Proposed Study Plan Meeting	1/7/21	5.11(e)
All Stakeholders	File Comments on Proposed Study Plan	3/8/21	5.12
City Light	File Revised Study Plan	4/7/21	5.13(a)
All Stakeholders	File Comments on Revised Study Plan	4/22/21	5.13(b)
FERC	Issue Director's Study Plan Determination	5/7/21	5.13(c)
Mandatory Conditioning Agencies	File Any Study Disputes	5/27/21	5.14(a)
Dispute Panel	Select Third Dispute Resolution Panel Member	6/11/21	5.14(d)
Dispute Panel	Convene Dispute Resolution Panel	6/16/21	5.14(d)(3)

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
City Light	File Comments on Study Disputes	6/21/21	5.14(i)
Dispute Panel	Dispute Resolution Panel Technical Conference	6/26/21	5.14(j)
Dispute Panel	Issue Dispute Resolution Panel Findings	7/16/21	5.14(k)
FERC	Issue Director's Study Dispute Determination	8/5/21	5.14(l)
City Light	First Study Season	2021	5.15(a)
City Light	File Initial Study Report	3/8/22	5.15(c)(1)
All Stakeholders	Initial Study Report Meeting	3/23/22	5.15(c)(2)
City Light	File Initial Study Report Meeting Summary	4/7/22	5.15(c)(3)
All Stakeholders	File Disagreements/Requests to Amend Study Plan	5/7/22	5.15(c)(4)
All Stakeholders	File Responses to Disagreements/Amendment Requests	6/6/22	5.15(c)(5)
FERC	Issue Director's Determination on Disagreements/Amendments	7/6/22	5.15(c)(6)
City Light	Second Study Season	2022	5.15(a)
City Light	File Updated Study Report	3/8/23	5.15(f)
All Stakeholders	Updated Study Report Meeting	3/23/23	5.15(f)
City Light	File Updated Study Report Meeting Summary	4/7/23	5.15(f)
All Stakeholders	File Disagreements/Requests to Amend Study Plan	5/7/23	5.15(f)
All Stakeholders	File Responses to Disagreements/Amendment Requests	6/6/23	5.15(f)
FERC	Issue Director's Determination on Disagreements/Amendments	7/6/23	5.15(f)

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
City Light	File Preliminary Licensing Proposal (or Draft License Application)	12/1/22	5.16(a)-(c)
All Stakeholders	File Comments on Preliminary Licensing Proposal (or Draft License Application)	3/1/23	5.16(e)
City Light	File Final License Application	4/30/23	5.17
City Light	Issue Public Notice of Final License Application Filing	5/14/23	5.17(d)(2)
* Due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID-19), issued by the President on March 13, 2020, we are waiving section 5.8(b)(viii) of the Commission's regulations and do not intend to conduct a public scoping meeting.			