



LAND MANAGEMENT PROGRAM

*A guide to Chelan PUD's program for
managing the lands and shorelines within the
Rock Island Hydroelectric Project Boundary*

**ROCK ISLAND HYDROELECTRIC PROJECT
FERC Project No. 943**



Public Utility District No. 1 of Chelan County
Wenatchee, Washington

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EXECUTIVE SUMMARY

The shorelines along the Columbia River are a critical resource that supports our region's environment, economy, and recreational activities. To preserve and protect the delicate balance between environmental, economic, and social pressures, caring for our shorelines is a responsibility we all share.

The Rock Island Project License contains numerous protection, mitigation, and enhancement requirements and responsibilities. In relation to the shorelines within the reservoir, our federal license requires that we understand and are attentive to the many demands placed on the shorelines so that the license commitments required in the long-term license can be reliably met.

Chelan PUD has developed this Lands Management Program Guide to help clarify its role in the authorization of land and shoreline uses within the Rock Island Project Boundary. This document is arranged in the following manner:

SECTIONS 1 AND 2

Introduction, purpose, and objectives of the Land Management

Program: In sections 1 and 2, you will find information on operations of the project/dam, the project boundary and the Federal Energy Regulatory Commission (FERC) requirements. In addition there is further explanation of why the Land Management Program guide was developed and the goals and objectives of the program. The Standard Land Use Article is important to Chelan PUD as it evaluates requests for land use within the Project Boundary. The complete Land Use Article as outlined in the Rock Island license can be found in Appendix B. Public and agency involvement during the development of this document is summarized in Section 2.4 and in Appendix C.

SECTION 3

Chelan PUD's Land Management Program: This section provides the steps an applicant will typically use when permitting a project or use within Chelan PUD's Project Boundary and provides a table summarizing the types of projects that may be approved by Chelan PUD and those that will require approval from the FERC. Also, to help identify land and shoreline areas that may require greater resource protection, Chelan PUD has developed shoreline classifications, Integrated Use, Resource Management, and Project Operations. Maps depicting the shoreline classifications can be found in Appendix A.

SECTION 4

Washington State's Joint Aquatic Resource Permit Application

process: Most proposed uses along the shorelines in Washington State require coordination, review and approval by multiple local, state, and federal agencies. To balance and protect the many, often competing resources and land uses, local, state, and federal regulators require permits for shoreline uses. The Joint Aquatic Resources Permit Application (JARPA) form that helps streamline the environmental permitting process into one application is discussed in this Section. Additionally, Section 4.3 outlines Best Management Practices that may be implemented to lessen the potential effects of a project or use on a resource. Using Best Management Practices is encouraged by Chelan PUD.

SECTION 5

Compliance and Enforcement: The Standard Land Use Article (Appendix B) directs Chelan PUD to oversee non-project uses of land along the shorelines and to take action to prevent those uses that are unauthorized. Monitoring and inspection activities are discussed here.

SECTION 6

Resources within the Project Boundary: Details of the environmental and recreational resources found within the Project Boundary are discussed in this section. Examples of the resources discussed include fish, wildlife, water quality, land use, cultural resources, recreation, and aesthetics.

SECTION 7

Literature Cited: This section provides a list of all literature and citations used in this document.



1 INTRODUCTION

The Rock Island Hydroelectric Project (FERC No. 943) (Project) is owned and operated by the Public Utility District No. 1 of Chelan County (Chelan PUD) and licensed by the Federal Energy Regulatory Commission (FERC)⁽¹⁾. The FERC Project License, License Article 5 and more specifically the Land Use Article 412⁽²⁾ directs Chelan to oversee activities within the Project Boundary and take action to prevent unauthorized uses of lands and shorelines within the Project Boundary. The FERC License defines Lands and Waters necessary to operate the hydroelectric facility, including those necessary for all of the beneficial uses, as the Project Boundary. Chelan PUD manages the Project Boundary in accordance with its License.

The Land Management Program addresses competing demands for access to Project lands while supplementing ongoing resource management protection and enhancement efforts and providing guidance on current and future Non-Project uses. The plan provides defined and consistent management strategies for the Project's lands, reinforces the letter and spirit of the Settlement Agreement, is consistent with the conditions contained within the Project License, and addresses resource concerns and demands at the Project. The Land Management Program Guide serves as a reference document for the public and includes the following:

- A description of Project operations and the Project Boundary.
- A discussion of Chelan PUD's regulatory and management responsibilities.
- A discussion of Chelan PUD's land management goals and objectives.
- Descriptions of resources relevant to land management planning.
- A discussion of Chelan PUD's agency and stakeholder consultation and outreach.
- Management guidelines for lands within the Project Boundary.
- Definitions of Land Management Classifications and maps.
- A description of evaluation processes for Non-Project uses and Chelan PUD's role in that evaluation process.
- Land Management Program monitoring/enforcement and amendment processes.

1.1 PROJECT STRUCTURES, OPERATION, AND BOUNDARY

The Project is located on the Columbia River, near Wenatchee, WA, in Chelan and Douglas Counties, about 12 miles downstream from the city of Wenatchee. The mid-line of the reservoir forms the boundary between Douglas County to the east and Chelan County to the west. FERC issued the initial License for the Rock Island Project in 1930, and the Project was completed in 1933. FERC issued a new License on January 18, 1989 for a period of 40 years.

The Project consists of concrete gravity dam with a gated spill way section and crest gates, a left bank powerhouse, right bank powerhouse, transmission lines, and appurtenant facilities. The Rock Island reservoir extends about 20 miles from river mile 454 upstream to the Rocky Reach tailrace at about river mile 474. The reservoir is 3,658 acres in area, with a typical width of 1,500 feet. The reservoir has a total storage

(1) *Licensed by FERC Order on Remand Issuing License (Major) and Approving Settlement Agreement (46FERC ¶61,033; January 18, 1989).*

(2) *The Land Use Article is an article found in most licenses with a provision for licensees to have authority to grant permissions for certain types of uses and occupancies of the project Lands and Waters and to convey certain interests without prior Commission approval.*

volume of 130,000 acre-feet, with 12,480 acre-feet of usable storage at 4 feet of drawdown. The License maximum headwater elevation at the dam is 613 feet and the minimum elevation is 609 feet.

Rock Island is a run-of-river Project, which means that the average daily inflow is equal to the average daily outflow. Chelan PUD is a signatory to the Mid-Columbia Hourly Coordination Agreement, along with Public Utility District No. 1 of Douglas County (Douglas PUD), Public Utility District No. 2 of Grant County (Grant) and the Bonneville Power Administration (BPA). Under the terms of this agreement, the five non-federal projects on the Columbia River (Rock Island, Rocky Reach, Priest Rapids, Wanapum and Wells hydroelectric project dams), as well as the Grand Coulee and Chief Joseph federal projects, are operated in a coordinated manner to optimize water use through this stretch of the Columbia River.

The Project Boundary encloses the reservoir and the tailrace below the Rock Island dam as well as the designated recreational sites. Just under ten acres of lands within the Project Boundary are under federal management and/or ownership. Chelan PUD owns approximately 750 acres and has flowage easements for the remainder of the lands. There are no tribal lands within the Project Boundary. All Project facilities including the dam, the powerhouse, the reservoir, fish facilities, and four parks, are located within the Project Boundary.

1.2 PROJECT LICENSING HISTORY

FERC issued a new 40-year License for Chelan PUD's Rock Island Project on January 18, 1989, incorporating a Settlement Agreement submitted to FERC on May 4, 1987. The following management plans were incorporated into the Project License:



- Article 403: Wildlife Management Plan
- Article 404: Bald Eagle Protection Plan
- Article 406 and 407: Wildlife Mitigation Plan
- Article 408: Endangered Species Plan
- Article 409: Cultural Resources Management Plan
- Recreation Plan

On June 21, 2004, the FERC adopted the Anadromous Fish Agreement and Habitat Conservation Plan (HCP)⁽³⁾, submitted on November 24, 2003, which replaced certain aspects of the Settlement Agreement. The HCP, undersigned by Chelan PUD, the National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), and Confederated Tribes of the Colville Reservation (Colville), added Articles 413-416 and modified the Project License and as follows:

- Article 413: HCP implementation including annual and comprehensive progress reports and studies and testing results.
- Article 414 and 415: Bull Trout Plan – implement the agencies’ Reasonable and Prudent Measures and associated Terms and Conditions and file annual reports

1.3 FERC REGULATORY SETTING, REQUIREMENTS, AND AUTHORIZATIONS

FERC, under the authority of the Federal Power Act (FPA), issues licenses for the construction, operation, and maintenance of non-federal hydroelectric developments. In granting a license to construct and/or operate a hydroelectric facility, FERC is required to make a

determination that the Project is best adapted to a comprehensive plan for improving or developing a waterway on behalf of beneficial public uses. The License and the FERC-approved Settlement Agreements govern all future License related activities (of the Licensee and third parties) within that Project Boundary. Chelan PUD is responsible for operating and maintaining its licensed Projects in accordance with License requirements and Project purposes (i.e., public recreation, environmental protection, etc.). Consistent with these License responsibilities, Chelan PUD may authorize specific uses and occupancies of lands and shorelines within the Project Boundary unrelated to hydroelectric power production or other Project purposes (Non-Project uses)⁽⁴⁾.

There are two License articles included in the Rock Island Project License that relate directly to land management planning, Standard Article 5 and the Land Use Article 412 (see Appendix B). Standard Article 5 requires Chelan PUD to acquire and retain fee title or hold the rights to use in perpetuity all property necessary or appropriate to construct, maintain, and operate the Project. Land Use Article 412, referenced more often throughout this Land Management Program Guide, gives Chelan PUD the authority to grant permission to applicants for specific Non-Project uses (subject to specific License and operating conditions), and provides guidelines for Non-Project uses that require FERC approval.

In general, Land Use Article 412 directs Chelan PUD to oversee land use activities and take action to prevent unauthorized uses of lands and shorelines within the Project Boundary. The Article authorizes Chelan PUD to administer and enforce a permit system for regulating Non-Project uses within the Project Boundary. The article further allows Chelan PUD to grant easements, rights of way, leases, and fee

(3) *The HCP is a collaborative approach Chelan PUD, fisheries agencies, and tribes developed to reduce Project effects on salmon and steelhead.*

(4) *FERC Guidance for Shoreline Management Planning at Hydropower Projects, July 2012.*

interests in lands and shorelines within the Project Boundary in limited situations.

The Land Use Article 412 also requires Chelan PUD to monitor and remedy any unauthorized use of lands and shorelines within the Project Boundary. Unauthorized use of lands and shorelines within the Project Boundary may be considered an encroachment and a Licensee may need to take legal or regulatory action to correct the violation. This may include revocation of permission to use lands and shorelines within the Project Boundary and removal of non-complying structures and facilities at the owner's expense. While generally not mandated by FERC, the Commission also encourages Licensees to develop a permitting program to support and enforce its Land Management Program. Chelan PUD's failure to comply with its License can result in FERC issuing License violations and, in some cases fines.

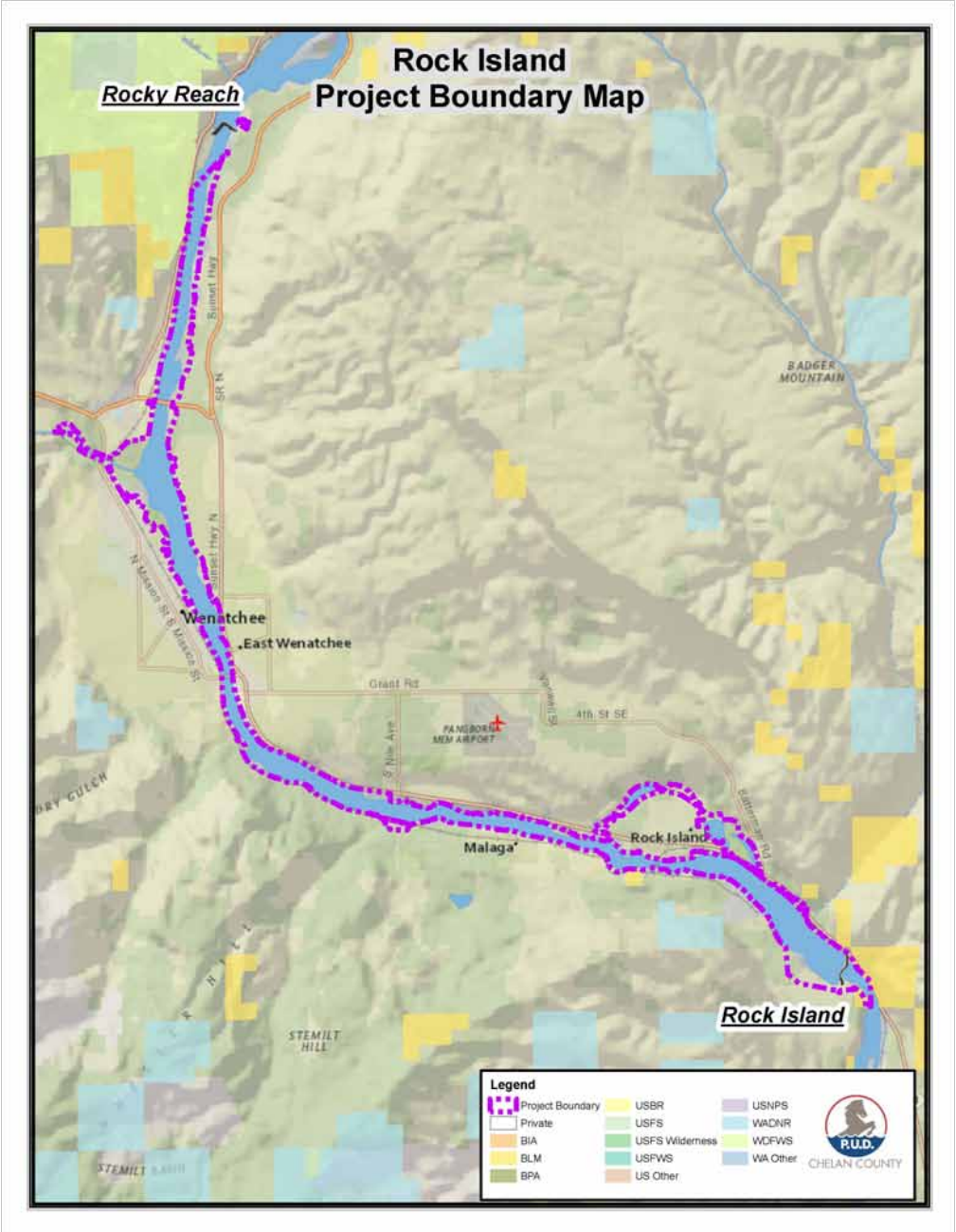
Some proposed uses or activities within the Project Boundary that are outside Chelan PUD's authority to grant permission will require review and approval from FERC.

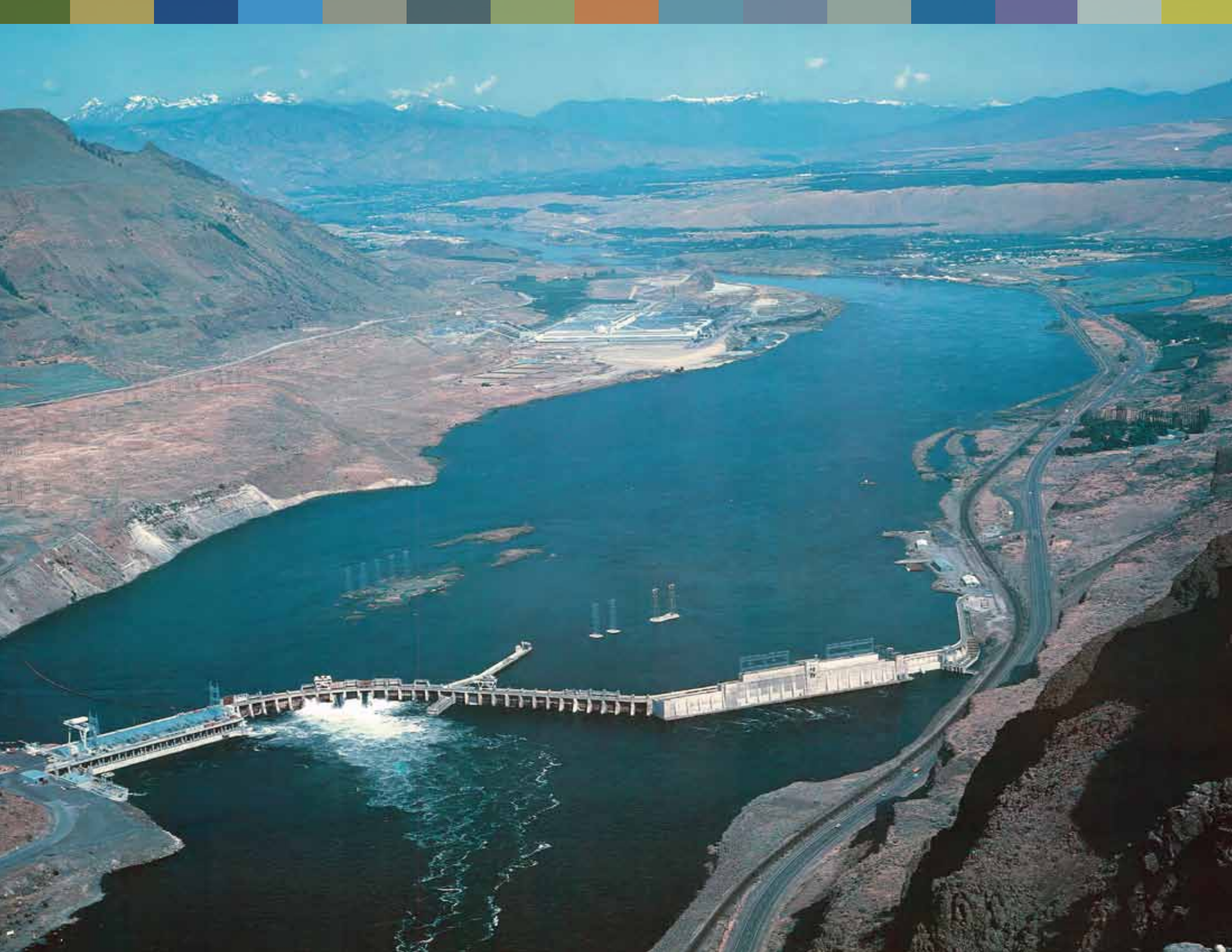
1.4 OTHER REGULATORY JURISDICTIONS AND MANAGEMENT INITIATIVES

There are a number of applicable local, state, and federal jurisdictions and regulations within the Project Boundary. Chelan PUD coordinates and contributes information in the review and approval process of the other regulatory jurisdictions associated with the Project Boundary. Section 4 of this document discusses applicable local, state, and federal regulations in more detail. Chelan PUD's Land Management Program does not negate existing state and federal regulations. It provides details regarding what resources, existing management responsibilities, and Project operation requirements Chelan PUD must consider when providing input to jurisdictional agencies regarding the review and authorization of uses and activities within the Project Boundary. In any instance where there are two or more regulations or FERC License requirements related to a particular use, the most stringent regulation will apply.

All municipalities, counties, towns, and Licensees near or within the Project Boundary have or are developing management plans that may be relevant to Chelan PUD's Land Management Program. These programs address shoreline development within a 200-foot buffer zone upland of the ordinary high water (OHW) line on non-federal lands. For more information and contacts associated with these jurisdictional agencies see Section 4.1.1 of this document. Chelan PUD implements the Rock Island Land Management Program in a manner that compliments and is consistent with these plans. In some instances, the Land Management Program policies and requirements differ from other existing management plans because they are specific to lands within the Rock Island Project Boundary and must consider License mandated activities and resource management goals.

FIGURE 1: PROJECT LOCATION AND PROJECT BOUNDARY





2 PURPOSE, GOALS AND OBJECTIVES

The intent of Chelan PUD's Land Management Program is to be consistent with Project License requirements and to protect and enhance the scenic, recreational, and environmental values of the Project, while affording reasonable public access and use of lands and shorelines within the Project Boundary. Chelan PUD works to ensure these values are protected by reviewing and approving land and shoreline uses within the Project Boundary that consider FERC regulations and guidelines, FERC mandated License compliance actions, the License Settlement Agreement, other relevant local, state, and federal plans, and the comments received from agencies, stakeholders, and property owners. If there is a conflict between the Land Management Program, a Non-Project use request, and the Project License, the Project License will take priority. Chelan PUD's Land Management Program does not supersede or change the Standard Land Use Article or other Project License requirements.

2.1 CHELAN PUD'S LAND MANAGEMENT PROGRAM GOALS AND OBJECTIVES

The Land Management Program provides a mechanism for managing the multiple resources and uses of lands and shorelines within the Project Boundary consistent with License requirements while anticipating future land and water uses. In particular, Chelan PUD recognizes that future development within the Project Boundary has the potential to affect existing aquatic and near shore resources. However, carefully balanced and consistently managed land use activity is appropriate within the Project Boundary if it does not adversely affect protected or sensitive natural or cultural resources and/or public access. Additionally, present or future land and water use proposals cannot adversely affect Chelan PUD's ability to operate the Project. The Land Management Program serves as a tool to consolidate the

numerous resource management responsibilities and locations Chelan PUD is required to implement and protect as part of the Project License. It provides guidance to both Chelan PUD staff and Non-Project use proponents regarding the environmental resources that could be impacted, permitting required to pursue land development activities, and the processes for gaining approvals. The objectives of the Rock Island Project Land Management Program are to:

- Comply with FERC License and Settlement Agreement requirements.
- Identify and clarify Chelan PUD's role in the permitting process.
- Comply with and/or complement other regulatory laws and regulations.
- Provide support and rationale for Chelan PUD's land and shoreline use authorizations and decisions.
- Acknowledge and support Hydroelectric Project operations.
- Protect environmental, cultural, recreation, and aesthetic resources.
- Provide safe and equitable access to and use of public lands and shorelines within the Project Boundary.

2.2 LAND MANAGEMENT PROGRAM SCOPE

Policies and procedures set forth in this Land Management Program are applicable only to shorelines and lands within the Project Boundary. The Rock Island Project Boundary delineates those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental and cultural resources. The Project Boundary includes all Lands and Waters as identified on maps that are approved by FERC and part of the License.

2.3 CHELAN'S RESPONSIBILITIES AND RIGHTS TO AUTHORIZE NON-PROJECT USES

Chelan PUD has a responsibility to ensure that development activities that occur within the Project Boundary are consistent with Project License requirements, purposes, and operations (Project Uses). As provided by Land Use Article 412, Chelan PUD may allow proposed uses that it deems appropriate and permissible as long as the proposed use is consistent with the Project's purposes and scenic, recreational, and environmental values. Chelan PUD must also ensure that its land use review and approval is consistent with other, resource specific management plans for the Project. Proposed uses that are outside the scope of Land Use Article 412 may require review and approval from FERC (refer to Land Use Article 412 in Appendix B).

2.4 PUBLIC OUTREACH AND AGENCY CONSULTATION

Public outreach and consultation with local, state, and federal jurisdictional agencies was an important component in developing this Land Management Program document. Ensuring the Land Management Program serves as a forward-looking guidance document for Non-Project use of lands and shorelines within the Project Boundary required seeking input from jurisdictional agencies, the public, and private landowners. Details associated with the public outreach and consultation completed during the development of this document is attached as Appendix C.



3 CHELAN PUD'S LAND MANAGEMENT PROGRAM

This section provides information related to Chelan PUD's process for reviewing and approving land and shoreline uses and includes the following:

- Step-by-step guide for applicants seeking Chelan PUD approval through the permitting process.
- Description of the types of projects that require Chelan PUD and/or FERC approval.
- Description of the criteria used by Chelan PUD in reviewing a proposal, including the resource land management classifications.
- Criteria for determining if FERC approval is necessary.
- Explanation of grandfathering and prior existing uses.
- Discussion of temporary activity approvals.
- Description and definition of "project uses".

Chelan PUD will not provide a Permit for any land or shoreline use without proof of receipt of all other relevant permits. Chelan PUD recommends contacting Chelan PUD's Real Estate Services Department for pre-application consultation to assess the feasibility of a proposal before entering into the permit process. Jurisdictional agencies and state permitting guidelines are discussed in Section 4 of this document.

Chelan PUD reviews and approves potential uses of lands and shorelines on a case by case basis taking into consideration Chelan PUD's land ownership and flowage easement rights. Some types of uses will require the FERC review and approval prior to Chelan PUD issuing approval. In these instances, Chelan PUD is required to review the proposal and regulatory permits received, consult with other

agencies as appropriate, and provide application to FERC for final approval. In these cases, Chelan PUD will review the proposal, work with the project applicant, and prepare the FERC submittal to verify the proposed action complies with the Project License and does not have the potential to adversely affect Chelan PUD's environmental and cultural resource management mandates.

Section 6 of this document summarizes the multiple protected and/or sensitive species and resources on lands and shorelines within the Project Boundary. Chelan PUD is actively managing these resources as part of the Project License. In some instances, multiple resources may occur in the same area. Some areas may have fewer protected or managed resources. In most cases, there are other applicable local, state, or federal regulations to protect these species and approve construction or use activities. With the exception of some temporary, passive uses of lands and shorelines within the Project Boundary, almost all activities that occur within 200 feet of a shoreline require some level of approval from local, state, and/or federal agencies.

3.1 STEPS FOR SEEKING CHELAN PUD APPROVAL WITHIN THE PERMITTING PROCESS

Applying for regulatory approvals to complete a land or shoreline project can be challenging. To help simplify the permitting process, the State of Washington has a single application form that is mutually accepted by the jurisdictional agencies, called the Joint Aquatic Resource Permit Application (JARPA). To begin the permitting process, Chelan PUD encourages applicants to contact their local City or County office for pre-application consultation, as well as, other potential jurisdictional agencies to assess the feasibility of their proposed project before beginning the permitting process. The JARPA process is outlined more fully in Section 4 of this document and is available on-line at www.epermitting.wa.gov/. Chelan PUD Real Estate

Services staff is also available to discuss Project specific considerations. See Appendix D for a list of Chelan PUD contacts.

The steps listed in Table 3-1, below, outline how an applicant might move through the permitting process, including review and approvals by Chelan PUD.

TABLE 3-1: STEPS FOR SEEKING CHELAN PUD APPROVAL FOR A PROPOSED PROJECT

Step 1 <i>Applicant</i>	Applicant provides proposed project or use to jurisdictional County or City and completes application forms using the JARPA process (see Section 4 of this document). Forms can be obtained online or from the County or City.
Step 2 <i>City or County</i>	The respective city or county will determine if the proposed project is within the Project Boundary. If so, it alerts Chelan PUD by forwarding the application material to Chelan PUD's Real Estate Services Department.
Step 3 <i>Chelan PUD</i>	Chelan PUD is notified of the proposed project or use by the City or County (and or the Applicant). Chelan PUD will then initiate review of the proposal. If it is determined the action will require FERC approval, Chelan PUD will work with the applicant to outline the documents needed and discuss the potential timelines associated with a FERC approval process. Chelan PUD will review the proposed action to determine if it is consistent with License requirements and does not have the potential to adversely affect environmental, recreation, or cultural resources (see Sections 3.2 and 3.3 below for more detail).

Step 4 <i>Chelan PUD and Jurisdictional Agencies</i>	Upon completion of its review, Chelan PUD will provide written comment to the County or City related to its review, including any findings of potential impacts or known resource areas of concern. Chelan PUD will also alert other local, state, and federal agencies of its findings, as appropriate. Under the JARPA process, the jurisdictional agencies will complete their processes to permit the proposed project.
Step 5 <i>Applicant</i>	The Applicant receives agency permits, including any related resource protection and mitigation requirements. The Applicant then provides proof of all permits obtained to Chelan PUD.
Step 6 <i>Chelan PUD and Applicant</i>	If the proposed project or use does not require FERC approval and all permits from jurisdictional agencies have been received, Chelan PUD will issue its approval through a permit or license. If the proposed project or use requires FERC approval, Chelan PUD will work with the Applicant to prepare the documents necessary for a FERC submittal and discuss the potential timeline associated with this process. Completing the FERC submittal can be facilitated by initiating document preparation in Step 2, so that the documents are ready to be filed with the FERC once the jurisdictional permits have been received. The FERC will provide notification to Chelan PUD that the application has been received and assigned for review by FERC staff. In some cases, FERC staff may request additional information. The FERC review process generally takes from 3 to 6 months to complete, depending on the complexity of the submittal and thoroughness of the application.



3.2 PROJECTS THAT REQUIRE CHELAN PUD AND/OR FERC APPROVAL

Land uses within the Project Boundary other than for Rock Island Project operations (e.g. dam structures, Chelan PUD parks, hatchery facilities, wildlife reserves, etc.) are called “Non-Project uses”. The FERC is ultimately responsible for regulating Non-Project uses. However, the FERC has delegated primary regulatory responsibilities at the Rock Island Project to Chelan PUD. Chelan PUD fulfills this responsibility using the following mechanisms:

- Chelan PUD Land Management Program (granting permissions as allowed by FERC);
- Application to FERC for approval of Non-Project uses of project lands (within the Project Boundary), when required.

FERC has given Chelan PUD the authority to approve certain Non-Project uses of land and shoreline within the Project Boundary without FERC approval. Chelan PUD may review and allow other potential land or shoreline uses not listed on a case-by-case basis.

In general, Chelan PUD will review and allow Non-Project uses within the Project Boundary that are consistent with ownership and flowage easement rights, the requirements of the Project License and other relevant management plans, meet local, state or federal ordinances and/or regulations, and for which the owner/proponent has received all necessary permits from jurisdictional agencies. The land and shoreline uses Chelan PUD can approve are specified in Standard Land Use Article (see Appendix B) within the License and are summarized in Table 3-2 below.

TABLE 3-2: LAND AND SHORELINE USE APPROVALS (LAND USE ARTICLE 412)

CHELAN PUD HAS AUTHORITY TO APPROVE	REQUIRES ANNUAL REPORT TO FERC	REQUIRES PRIOR FERC APPROVAL
Boat docks or similar structures that can accommodate no more than 10 watercraft at a time and intended to serve a single family dwelling	Water intake or pumping facilities that do not extract more than one million gallons per day from the project impoundment	Private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina
Non-commercial piers	Sewers that do not discharge into Project waters	Sewer or effluent lines that discharge into Project waters
Landings	Storm drains and water mains	Other pipelines that cross project lands or waters but do not discharge into Project waters
Landscape plantings	Minor access roads, replacement, expansion, realignment, or maintenance of bridges and roads	Recreational development consistent with an approved report on recreational resources
Embankments, bulkheads, retaining walls, or similar structures for erosion control	Telephone, gas, and electric utility distribution lines	Construction of new bridges or roads
Food plots and other wildlife enhancements	Non-Project overhead electric transmission lines that do not require erection of support structures within the Project Boundary	Non-Project overhead electric transmission lines that require erection of support structures within the Project Boundary
	Submarine, overhead, or underground major telephone distribution cables or major electric distribution lines	Other uses if: the amount of land conveyed is 5 acres or less; are at least 75 feet from the water

3.3 CHELAN PUD REVIEW PROCESS

When Chelan PUD receives a completed application for a proposed land or shoreline use within the Project Boundary, Chelan PUD will review the proposal to identify if:

- The proposal will comply with the specific agreements contained in the Chelan PUD flowage easement for the property, and
- The proposal is consistent with the purpose of protecting and enhancing the cultural resources of the Project,
- The proposal is consistent with the purpose of protecting and enhancing the scenic, recreational, and other environmental values of the Project and the Land Management Program,
- The proposal is consistent with applicable License management plans for the Project, such as the Recreation Resources Management Plan,
- The applicant has received all permits required by jurisdictional agencies (e.g. Clean Water Act 404 permit).

Chelan PUD may impose conditions upon the Permit in order to ensure that the use as permitted satisfies the above criteria. An applicant who accepts a Chelan PUD land use Permit agrees to abide by the terms and conditions contained in the Permit.

3.3.1 APPLICATION FOR A NON-PROJECT USE OF PROJECT LANDS AND FERC APPROVAL

Some shoreline uses fall outside of Chelan PUD's authority to issue a Land Use Permit. These are typically larger projects or those that would have greater environmental impact. Requests that fall outside of Chelan PUD's authority may only be authorized by the FERC. Requests for permits for Non-Project uses require Chelan PUD to file a request for a license amendment with the FERC. If a land or shoreline

use proponent requests Chelan PUD pursue a license amendment, the proponent must; 1) obtain Chelan PUD's agreement on the proposed use, 2) comply with all of FERC's rules regarding the content and process for the amendment, 3) be responsible for the costs of any analysis, studies, or other documentation, and 4) provide Chelan PUD with a copy of all required permits for the proposed use.

3.3.1.1 AGENCY CONSULTATION FOR PROPOSED USES REQUIRING FERC APPROVAL

Shoreline uses requiring FERC approval typically have the potential for greater environmental, cultural, and or recreational resource impacts. Chelan PUD will consult with local, state, and federal agencies (as appropriate), the SHPO, and other stakeholders as required in its License and consider the remarks when reviewing a proposed land or shoreline use and provide the comments to the FERC in the Non-Project use license amendment. Applicants may be required to provide additional information requested by the consulted agencies or Chelan PUD.

3.3.2 LAND MANAGEMENT CLASSIFICATIONS

To help differentiate between shoreline lands considered essential for Project operations, necessary for environmental protection, and those likely appropriate for most private and commercial uses, Chelan PUD has mapped lands within the Project Boundary using three classifications, Integrated Use, Resource Management, and Project Operations. These are defined below and summarized in Table 3-3. To protect resources, classification may change over time. Additional information and access to current Classification Maps is explained in Appendix A.

TABLE 3-3: RESOURCE LAND MANAGEMENT CLASSIFICATION SUMMARY

INTEGRATED USE AREA	RESOURCE MANAGEMENT AREA	PROJECT OPERATIONS AREA
No known significant environmental/cultural resources or associated resource management goals that would preclude Chelan PUD's approval. Most appropriate for the widest range of private, non-residential, and commercial uses. Acknowledges existing uses. Includes some currently undeveloped areas that may be appropriate for future uses.	Has known significant environmental/cultural resources or associated resource management goals, as identified in Settlement Agreement and subsequent resource management plans. Created to monitor and protect environmental and cultural resources.	Includes infrastructure essential to license mandated operations or those facilities, structures, and sites required by the FERC license. Includes dams, powerhouses and appurtenant structures. Includes areas restricted to public access due to safety, security, operational, or other constraints. Includes license related recreational sites.

Classifications are color coded for identification on map (see Appendix A, Resource Maps)

3.3.2.1 INTEGRATED USE AREA

Chelan PUD applies the Integrated Use Land Management Classification to areas within the Project Boundary with no known significant environmental/cultural resources or associated resource management goals that would preclude Chelan PUD's approval of Non-Project uses as part of the JARPA process. While any development or use can incur unwanted or adverse effects on the environment, these Land Management Classification areas are those most appropriate for the widest range of private, non-residential, and commercial uses. The Integrated Use Land Management Classification acknowledges existing uses, and anticipates future Non-Project uses by including within this designation some currently undeveloped areas within the Project Boundary that may be appropriate for future uses.

Assignment of this Land Management Classification to particular areas does not ensure there are no protected or sensitive resources present, although the likelihood of them occurring is believed to be lower than other classifications. As such, Chelan PUD strongly encourages proponents of Non-Project uses in the Integrated Land Management Classification to consult with County permitting and Chelan PUD Real Estate Services Department staff before moving forward with significant project planning. Additionally, Chelan PUD's Integrated Use Land Management Classification does not preclude the need for jurisdictional agency review and approval. Section 4 identifies these agencies and the regulations and laws they enforce.

3.3.2.2 RESOURCE MANAGEMENT AREA

Protection of fish and wildlife, their associated habitat, and the preservation of cultural areas are ongoing objectives of the Project License and Settlement Agreement. Chelan PUD classifies Project land areas known to support or contain a variety of sensitive or protected resources or designated for specific resource management, species protection, and environmental purposes as Resource Management.

The primary objective for the Resource Management area is to protect environmental and cultural resources. This Land Management Classification includes areas within the Project Boundary identified in the Settlement Agreement process and subsequent resource management plans, as areas that merit special protection and/or ongoing monitoring. Some of Chelan PUD owned lands within the Project Boundary have also been set aside for terrestrial and aquatic habitat management.

A majority of Chelan PUD or publicly owned land within this classification is available for low impact day uses such as hiking or hunting. Other locations are available for uses such as dispersed camping and public recreation facilities, such as parks. Chelan PUD's Recreation Management Plan identifies the locations and management strategies for these areas.

Any proposed permanent Non-Project use in a Resource Management area is subject to consultation and approval processes involving local, state, and federal resource agencies that have jurisdiction to regulate the proposed use (see Section 4). Typically, Resource Management areas require extensive environmental review, permitting, and mitigation and/or may be prohibited pursuant to local, state, or federal law. The permitting process may involve development of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) by Non-Project use proponents as well as completion of other required state or federal environmental analyses, such as a Biological Evaluation (BE) or Biological Assessment (BA) and subsequent Biological Opinion for Endangered Species Act (ESA) consultation.

Chelan PUD will consider new Non-Project use(s) within the Resource Management areas if the proposed action has minimal effect on environmental/cultural resources, does not impede Project License and resource management plan requirements, or if other jurisdictional agencies approve mitigation plans to offset resource impacts as part of

the JARPA review process. Chelan PUD may require Project specific mitigation in some instances.

The proponent of a Non-Project use is required to develop and submit appropriate materials and support the action throughout the review process. Chelan PUD will not issue its Permits/Licenses unless JARPA applicants can provide proof of consultation, and where appropriate, receipt of permits from other jurisdictional agencies. Chelan PUD recommends that any proponent of a Non-Project use contact Chelan PUD's Real Estate Services Department for pre-application consultation. This will help Non-Project use proponents assess the feasibility of their proposals before entering into the JARPA process.

3.3.2.3 PROJECT OPERATIONS AREA

The Project Operations Land Management Classification includes those infrastructures that are essential to License mandated operations or those facilities, structures, and sites required by the FERC License. These can include dams, powerhouses and appurtenant structures. Due to safety, security, operational, or other constraints, Chelan PUD must maintain strict control of these facilities and sites and may restrict public access to them. Chelan PUD includes License related public recreational sites within this Land Management Classification.

For facilities associated with hydroelectric power production or for other appurtenant operations (e.g. fish production and rearing facilities), uses are strictly limited to those necessary for operation and maintenance. Chelan PUD has established site-specific regulations for recreational facilities, public information and education sites.

3.3.3 PRIOR EXISTING USE REVIEW

Prior Existing Uses are Non-Project uses established before Chelan PUD's Land Management Program development. Chelan PUD will work cooperatively with Chelan and/or Douglas County or local government entity permitting staff to identify Non-Project uses that

have not received approval through the JARPA process. Local, state, or federal jurisdictional authorities may take enforcement actions such as imposing fines and/or requiring removal of unauthorized structures or uses.

In some instances, Chelan PUD will both notify the local jurisdictional agency and contact Non-Project use owners if it determines that the proponent has not applied for and received appropriate authorization from Chelan PUD to occupy Project lands or waters. Once notified, proponents/owners of unpermitted structures should initiate consultation with the respective local jurisdictional agency to apply for required permits, which will also initiate Chelan PUD's review of the unpermitted Non-Project use. Chelan PUD may approve Prior Existing Uses under the JARPA review process if it determines the Non-Project use:

- will not interfere with Project purposes or operations,
- is adequately maintained and does not pose an undue hazard to persons or property,
- received the necessary permits from the applicable jurisdictional agencies, and
- is consistent with the intent of the Land Management Program.

Chelan PUD considers Prior Existing Use permitting or "grandfathering" on a case-by-case basis if otherwise approved/ permitted by city, county, or other jurisdictional agencies. It is not obligated to grandfather a Prior Existing Use and this Land Management Program does not require it to do so. Chelan PUD's ability to grandfather an existing use does not create, and is not intended to create, an opportunity to automatically allow or continue Prior Existing Uses. Chelan PUD recognizes that some Non-Project uses may have been installed or constructed before local, state or federal regulations applied to such. It also recognizes that owners of older

structures and/or those that have transferred ownership multiple times may have difficulty providing proof of construction authorization. Chelan PUD recommends that owners in this situation first contact the respective local authority to determine if permits or authorizations are on file. Chelan PUD will address these situations on a case-by-case basis.

A decision by Chelan PUD to grandfather an existing use is not intended to override or nullify the terms of existing lease agreements between Chelan PUD and other parties. Chelan PUD will not grandfather Non-Project uses that are in violation of the terms of existing leases or agreements with Chelan PUD or its authorized agents, except as those agreements may be replaced or otherwise changed, with Chelan PUD's consent, to allow for the existing use in question⁽⁵⁾.

3.3.4 TEMPORARY ACTIVITY PERMITS

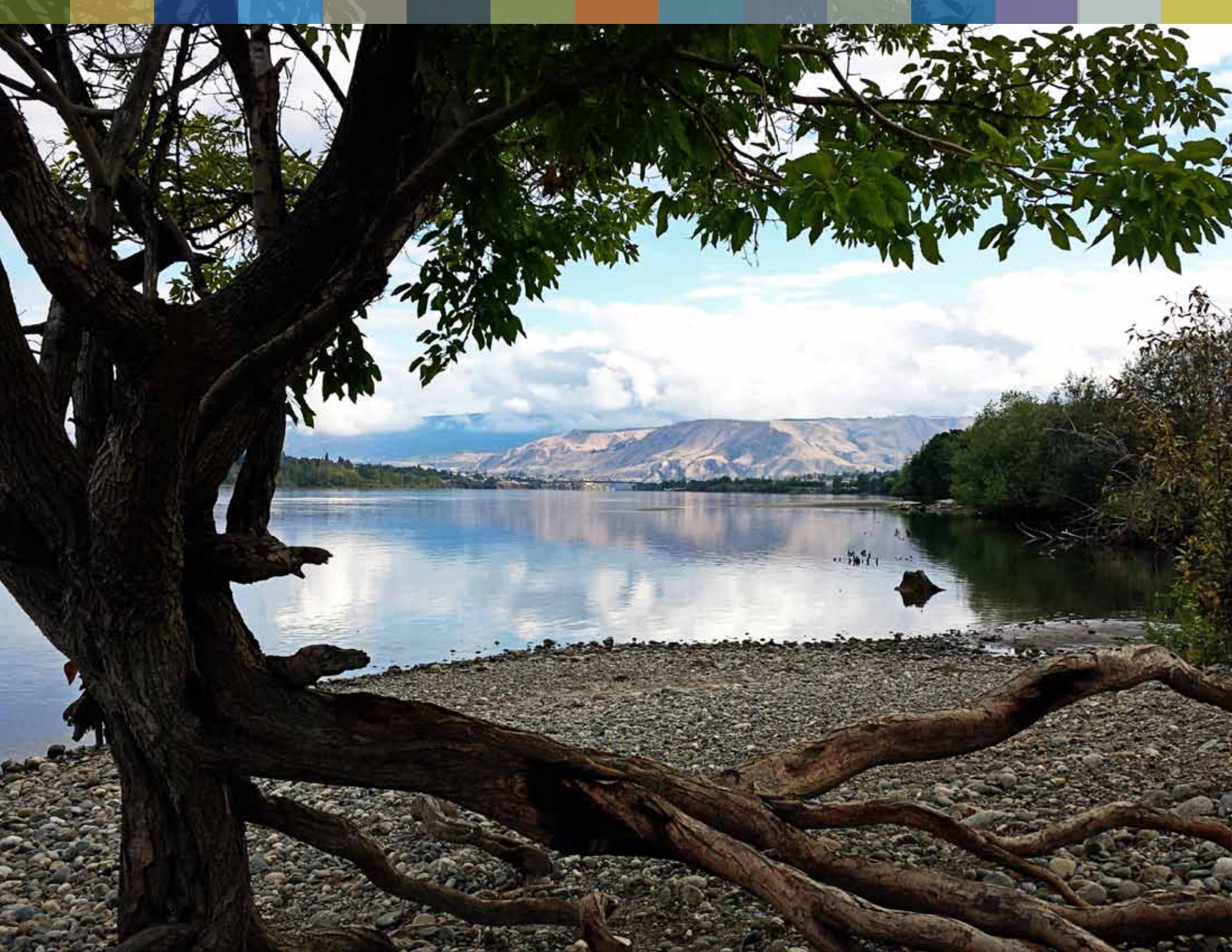
Chelan PUD may permit a temporary, Non-Project use if it 1) does not interfere with Project operations; 2) does not require any form of construction; 3) does not establish a long-term use; and 4) does not result in any significant adverse effect on a sensitive or protected Project resource. Some examples of temporary activities that Chelan PUD may allow include one-time outdoor events, educational projects, and other non-commercial programs associated with schools, universities, service clubs, or youth organizations. Local, state, and/or federal review and permits, if required, may be necessary depending on the nature of the use or activity.

(5) *Changes in leases or other agreements may also require prior FERC notification and/or approval.*

3.3.5 LICENSE IMPLEMENTATION MEASURES AND PROJECT OPERATIONS

Chelan PUD's use of lands and shorelines within the Project Boundary for operational purposes, including implementation of its FERC License, Settlement Agreement, and resource management plans (by Chelan PUD or third parties operating on behalf of Chelan PUD) are Project Uses. Those uses are subject to FERC requirements and permits from jurisdictional agencies may be required for such activities.





4 WASHINGTON STATE PERMITTING PROCESS

4.1 JOINT AQUATIC RESOURCE PERMIT APPLICATION (JARPA)

Most proposed uses within the shoreline environment in Washington State will require review and approval by city/county permitting staff, the WDOE, WDFW, and the ACOE. Any project involving work below the Ordinary High Water Lines will require ESA consultation, which may incur significant additional time and cost to the project. Chelan and Douglas counties and area municipalities participate in a program developed to reduce the number of forms needed for shoreline development permit applications and for complying with environmental laws that have redundant purpose and authority. The combined application form that is mutually accepted by the jurisdictional agencies is the JARPA. A complete guide to the JARPA process can be found at www.epermitting.wa.gov/.

The JARPA is used to process permits for:

- Shoreline Substantial Development, Variance, or Conditional Use Permit issued by local government. (Note that some local agencies require completion of their own forms.)
- Temporary Modification of Water Quality Criteria issued by the WDOE.
- Hydraulic Project Approval (HPA) issued by the WDFW.
- Section 401 Water Quality Certification issued by WDOE.
- Aquatic Use Authorization issued by Washington Department of Natural Resources (DNR)
- ACOE Section 404 and Section 10 Permits (which may include ESA consultation).

As discussed in Section 3.2 of this document, all Non-Project uses within the Project Boundary require review and approval by Chelan

PUD, and in some instances FERC. Additionally, Chelan PUD requires that all Non-Project uses within the Project Boundary receive all necessary permits and authorizations from applicable jurisdictional agencies. Chelan PUD will not authorize Non-Project uses without proof of receipt of all required jurisdictional agencies' permits. The following Section describes the general jurisdictional agencies whose permit approvals are required for most shoreline activities and that accept the JARPA for application. Chelan PUD recommends contacting city/county permitting staff for pre-application consultation as well as the contacts listed below for local, state and federal jurisdictional agencies. This will assist Non-Project use proponents in assessing the feasibility of their proposals before entering into the permitting process. Chelan PUD Real Estate Services staff is also available to discuss Project specific considerations.

4.1.1 LOCAL GOVERNMENT

The Shoreline Management Act and associated city and county Shoreline Master Programs regulate development within 200 feet of the Ordinary High Water line, or within the 100-year floodplain, in most cases. Accordingly, any new proposed uses require review and approval by local and/or county regulatory staff with subsequent review by the WDOE. Typically, a county or city will review a proposed use to determine if the use qualifies as a Shoreline Substantial Development Permit, Conditional Use Permit, Variance Permit, or Exemption.

Local government also reviews shoreline uses in frequently flooded areas, geologically hazardous areas, wildlife habitats, aquifer recharge areas, and wetlands and may require application for Floodplain Management Permits and/or compliance with local critical areas ordinances.

Chelan County Department of Community Development

316 Washington Street, Suite 301

Wenatchee, WA 98801

(509) 667-6225

Douglas County Planning Commission

140 19th Street NW

East Wenatchee, WA 98802

(509) 884-7173

City of Wenatchee

Department of Community Development

1350 McKittrick Street

P.O. Box 519

Wenatchee, WA 98807

(509) 888-3200

City of East Wenatchee

Community Development

271 9th St. NE,

East Wenatchee, WA 98802

City of Rock Island

Community Development

5 N Garden

PO Box 99

Rock Island, WA 98850

4.1.2 STATE GOVERNMENT

4.1.2.1 WASHINGTON STATE DEPARTMENT OF ECOLOGY (WDOE)

The WDOE exercises jurisdiction under several state and federal statutory authorities. WDOE is responsible for certifying that construction activities meet Section 401 of the Clean Water Act. This “water quality certification” is required when a project requires federal approval (ACOE, FERC, etc.). WDOE also exercises jurisdiction under the Washington State Shoreline Management Act. The Shoreline Management Act establishes a cooperative program of shoreline management between local government and the state. Local government has the primary responsibility for initiating the planning required by this chapter and administering the regulatory program consistent with the policy and provisions of the Shoreline Management Act. All Non-Project use applicants will deal directly with the respective city or county planning staff and permitting agents. Specific to this Land Management Program, applicants must coordinate with local government planning staff (see Local Government Section above).

For further information, Non-Project use proponents may contact the WDOE at:

Washington State Department of Ecology

Central Regional Office

15 West Yakima Avenue, Suite 200

Yakima, WA 98902-3452

(509) 575-2490

WDOE also provides guidance regarding the Washington State Environmental Policy Act (SEPA) process. SEPA provides a means to identify potential environmental impacts that could result from government decisions regarding, among other things, issuance of permits for private projects. If a proposed Non-Project use requires SEPA review, an applicant must fill out a checklist regarding

the proposed Non-Project use and its potential impacts to the environment. This checklist allows lead permitting agency staff to make decisions on the significance of the proposed Non-Project use and issue a determination of non-significance, mitigated determination of non-significance, or a determination of significance which will require the applicant to prepare an EIS evaluating alternatives and measures to eliminate or minimize the potential effects of the Non-Project use. SEPA gives agencies authority to condition a proposal if the EIS identifies specific adverse impacts. In some cases, an agency may deny a proposal based on the findings of the EIS.

For further information, proponents of Non-Project uses may contact the WDOE at:

Washington State Department of Ecology

Central Regional Office

15 West Yakima Ave. Suite 200
Yakima, WA 98902-3452
(509) 575-2490

4.1.2.2 WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE (WDFW)

A Hydraulic Project Approval (HPA) from the WDFW is required if a proposed shoreline use includes construction or other work that will use, divert, obstruct, or change the natural flow or bed of any fresh or salt water of the state. This includes all construction or other work waterward and over the OHW line and may include uses landward of the OHW line, if the proposed use has the potential to affect fish, wildlife and habitat. In general, most construction, installation, and, often, maintenance of any structure in or over the water requires this permit.

For further information, Non-Project use proponents may contact WDFW at:

WDFW - Wenatchee District Office

3860 Chelan Hwy N
Wenatchee, WA 98801
(509) 662-0452

WDFW – Headquarters

Natural Resources Building

(physical address) 1111 Washington Street SE
Olympia, WA 98501
(360) 902-2534
(mailing address) 600 Capitol Way North
Olympia, WA 98501-1091

WDFW – North Central - Region 2

1550 Alder Street NW
Ephrata, WA 98823-9699
(509) 754-4624

4.1.2.3 WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES (WDNR)

An Aquatic Resource Use Authorization (Aquatic lease) is required if a proposed shoreline use is on, crosses, or impacts the bedlands, tidelands, or shorelands of a navigable water.

For further information, Non-Project use proponents may contact WDNR at:

Washington State Department of Natural Resources Southeast Region

713 Bowers Road
Ellensburg, WA 98926-9301
(509) 925-8510
southeast.region@dnr.wa.gov

4.1.2.4 WASHINGTON STATE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION/STATE HISTORIC PRESERVATION OFFICER (SHPO)

Proposed Non-Project uses within the Project Boundary may require review and comment from the SHPO through the JARPA review process discussed below. Additionally, Chelan PUD staff will review all proposed new uses consistent with procedures defined in the Cultural Resources Management Plan, regardless of the Land Management Classification in which they occur, to determine whether the activity has the potential to affect cultural resources. Early identification of proposed Non-Project uses, as well as identification of activities requiring permit applications and those that do not, will be key to minimizing problems for Non-Project use proponents. Chelan PUD will review the permit application and supporting information to ensure that the permit applicant provides the appropriate information. Chelan PUD may assist permit applicants in determining whether the proposed action is subject to Washington state cultural resource laws and regulations and if consultation with the SHPO is required.

Chelan PUD may require proponents of ground-disturbing activities within the Project Boundary to undertake the appropriate level of cultural resource investigations, mitigation measures, and/or monitoring measures consistent with the level of resource protection measures outlined in the HPMP. Chelan PUD will determine the need for a cultural resource investigation based on the submitted application material. For proposed uses that require a cultural resource investigation, the Applicant is required to reimburse Chelan PUD for the cost of the investigation. Chelan PUD will notify Applicants when cultural resource investigations are required. The results of the cultural resource investigation will identify if there is a need for mitigation or monitoring.

For further information, Non-Project use proponents may contact:
State Historic Preservation Officer (SHPO)

Gretchen Kaehler
Assistant State Archaeologist, Local Governments
Department of Archaeology and Historic Preservation
Olympia
Phone: (360) 586-3088
Cell: (360) 628-2755

4.1.2.5 FEDERAL GOVERNMENT - U.S. ARMY CORPS OF ENGINEERS (ACOE)

Under Section 404 of the Clean Water Act, the United States Congress directs the ACOE to regulate the discharge of dredged and fill material into all waters of the United States, including their adjacent wetlands. The intent of this law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain the chemical, physical, and biological integrity of those waters. Typical activities requiring permits include, but are not limited to, boat ramps, docks, bulkheads/retaining walls, ditches, dams,

dikes, weirs, dredging, filling, intake structures, outfall structures, rip-rap, and similar activities.

Additionally, Section 10 of the Rivers and Harbors Act of 1899 requires a permit prior to the accomplishment of any work in, over, or under navigable waters of the United States, or which affects the course, location, condition or capacity of such waters. Typical activities requiring Section 10 permits include, but are not limited to, construction or installation of piers, bulkheads, marinas, ramps, floats, overhanging decks, buoys, boat lifts, jet ski lifts, intake structures, outfall pipes, and dredging and excavation.

The ACOE solicits review from other federal agencies such as the NMFS⁽⁶⁾, United States Fish and Wildlife Service (FWS), and the Environmental Protection Agency (EPA). Depending upon the scope of the proposed activities, consultation under the Endangered Species Act (ESA) with NMFS and USFWS may be required as part of the ACOE review process. They may also require an applicant provide proof that a proposed Non-Project use poses no adverse effect to historic and cultural resources. Penalties for violations can range from being required to remove the structures and material to substantial fines or even imprisonment. If a proposed use includes any of the above activities, or it is uncertain if an activity requires a permit, contact the ACOE Seattle District Office Regulatory Branch at:

U.S. Army Corps of Engineers, Seattle District

Regulatory Branch

P.O. Box 3755

Seattle, WA 98124-2255

(206) 764-3495

(6) *National Oceanic and Atmospheric Administration (NOAA) Fisheries.*

4.2 JARPA GUIDELINES

Chelan PUD provides the following excerpt from the State of Washington's Environmental Permitting Information website⁽⁷⁾ regarding the JARPA and permitting process. All Non-Project use proponents are encouraged to review the website for complete, detailed information, guidance, and additional resource links, and meet with city and county permitting staff for a more detailed explanation of permit application requirements.

Before you start:

- Make sure you have a clear plan in mind for your project. Just like when you apply for a building permit, you must know what you plan to do before you start to fill out the application. This may include drawings with dimensions, maps, pictures, etc.
- Always download the JARPA form from www.epermitting.wa.gov to make sure you have the most current version of the JARPA. It is important you have the most current version.
- Contact the local city or county government. Use the Summary of Questions to Ask Local Government link; it may save you from needing to make multiple phone calls to your local government.
- Contact your local planning department. Find out if your project falls under the jurisdiction of the Critical Areas Ordinances, the National Flood Insurance Program and Shoreline Master Program. If it does, you may be able to use a JARPA.
- The State Environmental Policy Act (SEPA) Checklist link may

(7) http://www.epermitting.wa.gov/site/alias__resourcecenter/jarpa_process__overview/9979/process_overview.aspx#Before_You_Start_

be required for your project. SEPA analyzes the environmental impacts of a project. SEPA must be completed before local and state permits can be issued.

- Contact each permitting agency. Agencies may require more information or materials not specifically required in JARPA. Early coordination with all of the agencies may prevent delays in the processing of your application.
- Work with the local Fish and Wildlife Area Habitat Biologist early in the process. They will help you identify any special constraints, habitat guidelines, or issues that may crop up during fish habitat and aquatic permit projects. A list of Biologists names and phone numbers is available online at <http://wdfw.wa.gov/conservation/habitat/ahbb/>.

When you fill in the JARPA:

- Make sure to check the box next to each permit you think you will need. You will need to send an original signed copy of the application to all the agencies associated with the boxes you checked.
- Be very detailed and specific; more information is better than less.
- Make sure your site maps and drawings are consistent with the written description you give on the application.
- Check out the state's online glossary for definitions of words that are new to you. http://www.epermitting.wa.gov/site/alias_resourcecenter/resources_glossary/2485/glossary.aspx
- Put N/A in any questions that do not apply to your project. Don't just leave it blank.
- You need to have original signatures on the applications you submit to each agency. This means you must first make copies of the application then sign each copy with your original

signature. Agencies will not accept applications with a copied signature.

- Understand that when you sign the application, you give permission to the agencies that you are applying for a permit from the right to enter the property where your project is located. This is to inspect the proposed, in-progress, or completed work. You also agree to start work ONLY after you get all of the necessary permits.

4.3 BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are actions implemented to lessen the potential effects of the direct or indirect use of a resource. Some BMPs will be mandatory and if so, will be noted in the permits. Other BMPs are suggested to the owner/proponent to assist in conserving and protecting valuable land and shoreline resources and to help reduce potential adverse effects to environmental resources and water quality. For example, if property owners wish to cut or remove vegetation from their property to improve access or the view and have received all applicable regulatory approvals, they should consider conducting selective clearings and/or replanting low-lying vegetation that will help maintain soil stability rather than to remove all vegetation. Selective clearing and replanting are considered BMPs because they lessen the potential effects of the clearing.

Chelan PUD encourages adjacent property owners to adopt the BMPs suggested below voluntarily, as well as any other BMPs promoted by local, state, or federal agencies. Chelan PUD also recommends Non-Project use proponents follow established guidelines presented in the Integrated Streambank Protection Guidelines published by the Washington State Aquatic Habitat Guidelines Program (2003). As discussed below, some activities and Non-Project uses within the Project Boundary may have additional requirements. Chelan PUD is dedicated to employing BMPs when managing its properties, both

within and outside the Project Boundary. With assistance of interested parties, Chelan PUD supports public education efforts to encourage property owners to adopt the BMPs suggested below, as well as any other BMPs promoted by local, state, or federal agencies.

In some cases, specific BMPs may be a requirement of permits issued by Chelan PUD or other jurisdictional agencies and those BMPs shall be mandatory. Within the Project's Boundary, BMPs are required when implementing any land management measures on all Chelan PUD owned lands and generally within the Resource Management areas. Chelan PUD does not mandate the use of BMPs on non-Chelan PUD lands.

4.3.1 BMP - SHORELINE BUFFER ZONES

Vegetated shorelines are an important component of a healthy aquatic ecosystem. Naturally vegetated shorelines act as natural filters, facilitating the absorption and processing of runoff pollutants. This filtering ultimately reduces the amount of potentially harmful contaminants that enter a water body and that contribute to water quality degradation. In addition to filtering potentially harmful pollutants, the root systems of naturally vegetated shorelines provide a structure that helps maintain shoreline integrity and reduces excessive erosion that reduces water quality and in some cases adversely affects aquatic habitat. While limited planting of natural grasses can be an aspect of maintaining buffers, especially when used to stabilize disturbed soils, mowed lawns and non-native grass may not provide adequate contaminant filtering or long-term erosion control. Naturally vegetated shorelines improve the aesthetic integrity of the water body and provide preferred aquatic and terrestrial habitat. BMPs that promote naturally vegetated shorelines are an integral part of efforts to maintain and improve water quality, shoreline stabilization, aesthetics, and wildlife habitat within the Project.

BMPs that support natural vegetation preservation or establishment along the shoreline include practices that:

Minimize clearing of native trees and vegetation.

Minimize the removal of large trees along shorelines or other steep and erodible areas.

Provide temporary soil protection in disturbed areas through planting low maintenance, native grasses or other groundcovers recommended for site-specific conditions.

Avoid dumping leaves or yard debris on or near the shoreline (no dumping of yard waste or debris is allowed within the Project Boundary including along any portion of the shoreline).

4.3.2 BMP - VEGETATION MANAGEMENT

Anyone considering removal of trees or other vegetation within 200 feet of OHW should be aware that other local, state, and federal regulatory approval may be required. Activities involving clearing, removing, or mowing vegetation or planning to plant or landscape with vegetation or other materials requires consultation with local governmental permitting staff and may involve consultation with Chelan PUD staff if the proposed activity occurs within the Project Boundary as such actions may interfere with local zoning and Project-specific resource management requirements. Special circumstances, such as the presence of wetlands, may result in a requirement for mitigation or alternative vegetation management practices through the permitting process. Chelan PUD will allow removal of vegetation if a jurisdictional agency or Project-related management plan prescribes the practice for habitat enhancement or if otherwise approved through the JARPA process. It is a Douglas County requirement that a habitat management mitigation plan be acquired for riparian vegetation disturbance.

4.3.3 BMP - EROSION CONTROL

There are a variety of physical and biological control measures available to address erosion depending on the dynamics of each situation. Proposed erosion control measures will be evaluated on a case-by-case basis depending on shoreline characteristics and classification as part of the JARPA. In general, construction techniques and methods to minimize adverse effects to the riparian environment are the preferred methodology. While biotechnical stabilization methods are highly recommended, other erosion control measures will be considered, including riprap. Bulkheads are the least preferable method of shoreline stabilization. Certification from a geotechnical professional verifying the need for such structures is required prior to Chelan PUD approval.

Chelan PUD will provide public access to two erosion control demonstration sites at Entiat Park and on Entiatqua Trail south of Entiat Park in 2015. Information will be provided on an interpretive sign at each location detailing the methods used and how to access more information regarding additional erosion correction and control methods. Erosion control information is available on Chelan PUD's website: www.chelanpud.org.



5 COMPLIANCE AND ENFORCEMENT

Land Use Article 412 directs Chelan PUD to oversee Non-Project uses and take action to prevent unauthorized, non-complying uses of lands and shorelines within the Project Boundary. As referenced in other portions of this document, all proposed Non-Project uses that affect lands and shorelines within the Project Boundary are subject to Chelan PUD's review and, in some instances, approval. Pursuant to the authority granted Chelan PUD under the Project License, Chelan PUD retains the right to review all proposed and existing uses and occupancies of lands and shorelines within the Project Boundary for consistency with its Project License and resource management requirements.

All Non-Project uses on Chelan PUD owned land and approved by Chelan PUD through its permitting process are subject to inspection by Chelan PUD staff. Should an inspection reveal that these uses deviate from the approved plans, Chelan PUD will require that the property owner correct the discrepancy and/or remove the encroachment from the lands and shorelines within the Project Boundary. Chelan PUD must approve any alterations, additions, relocation, or other physical changes to an existing, permitted use prior to such changes. Local, state, and federal review and approval is also required. In an effort to ensure the goals and objectives of the Land Management Program as well as all License requirements are met, Chelan PUD reserves the right to revoke a Permit/License as provided in the permit. Chelan PUD may take any legal measures necessary to prohibit unauthorized use of Chelan PUD owned lands and require removal of structures and the restoration of these lands or waters to their original condition, if permit conditions and Land Management Program requirements are not followed.

All Non-Project uses on non-PUD lands are subject to the conditions of the permits issued by and enforcement of jurisdictional agencies. Where appropriate Chelan PUD may make Project specific recommendations to these agencies to ensure the proposed Non-Project use does not affect Chelan PUD's ability to comply with the Project License and mandated resource management activities.

5.1 LAND MANAGEMENT PROGRAM UPDATE PROCESS

Chelan PUD is committed to the long-term stewardship of the Project's lands, water, and environmental, recreational, and socioeconomic values. Chelan PUD recognizes that the region is a popular tourist destination and residential area, and that Non-Project uses change over time. Additionally, the Project area provides habitat to species that are naturally transient and for which Chelan PUD is actively implementing mitigation and protection measures. While changes in use may occur slowly, they may also result in patterns that necessitate reassessment of the Land Management Program.

To assure that the Land Management Program continues to serve its intended purpose and remains relevant during the Project License term, Chelan PUD has instituted processes to periodically review and, if necessary, amend the plan. Chelan PUD coordinates review of the Land Management Program with submittal of recreation reports to FERC (FERC Form 80 Reports), which occur every six years. The six-year period allows Chelan PUD to assess new issues that may arise because of development around the reservoirs in addition to reviewing the need for any Land Management Program changes as it relates to public access and recreational use. The following Section describes how Chelan PUD will accomplish this review, with whom Chelan PUD intends to consult during various reviews, what actions Chelan PUD considers appropriate to take without amendment to the Plan, and what triggers may warrant both agency and FERC consultation and/or amendment to the Land Management Program.

5.2 PROGRAM MONITORING AND REVIEW

Chelan PUD will review the Land Management Program, Land Management Classification mapping, and permitting activities for the purposes of tracking uses and noting any minor changes in use on an annual basis. This will provide long-term data useful in identifying areas experiencing change and augment periodic Land Management Program review. During the review of Project mapping, Chelan PUD will note minor changes such as changes in recreational uses, new Non-Project facilities, and minor modifications to Project maps. These types of incremental changes do not warrant amendments to the Land Management Program.

In the event that a major modification is proposed to be made to the Land Management Program Guide, Chelan PUD will publicly notice the proposed change and provide a public listening meeting. This will allow Chelan PUD to solicit feedback on, and advise the public of, the proposed change. It will also provide an opportunity for the public to meet with Chelan PUD staff and discuss issues of community interest.

Chelan PUD's primary means of tracking and monitoring Non-Project uses is through its permitting programs. Chelan PUD will track new Non-Project use applications and existing permits. With the data already in place for the Land Management Classifications, Chelan PUD will use the global positioning satellite (GPS) coordinates of any new permit application to determine the applicable Land Management Classification. Chelan PUD will review the number and location of permits it has processed within each Land Management Classification on an ongoing basis to assess overall land use and the effectiveness of the Land Management Program in managing these uses.

Chelan PUD performs periodic on-site reservoir monitoring. Chelan PUD Real Estate Services staff survey the Project reservoir by boat monthly (weather permitting) and note any new land uses or facilities within the Project Boundary. Staff then confers with respective local



jurisdictional agency permitting staff to confirm that the observed activities are in receipt of all valid permits.

Chelan PUD maintains regular contact with local government permitting staff to remain current on regional development adjacent to the reservoirs that may be relevant to the Land Management Program.

Table 5-1 provides examples of the various types of shoreline and land uses, alterations, and water quality issues monitored by Chelan PUD. Chelan PUD may coordinate with County or other enforcement agencies to determine if regulatory approvals were received or needed for the specific use, alteration, or water quality issue.

TABLE 5-1: EXAMPLES OF SHORELINE AND LAND USES, ALTERATIONS AND WATER QUALITY ISSUES

SHORELINE ALTERATIONS	OVER/IN-WATER STRUCTURES	POLLUTION ISSUES
Extraction	Docks	Illegal dumping
Mining	Pumping infrastructure	Oil spills
Gravel pits	(Surface water intakes)	Wastewater effluent (public\private) - pharmaceuticals
Vegetation alterations	Boat ramps	Pesticides, herbicides, fertilizers and other nutrients
Noxious weed/vegetation control	Underwater utilities	Storm water runoff
Agricultural uses	Power, water, wastewater, telecom	Irrigation withdrawals and returns
Livestock grazing	Buoys	Boats & other water craft (fuel, oil and other spills and discharges)
Landscape plantings	Bridges	Invasive species
Riparian vegetation removal	Buildings (overwater houses and boat houses)	Total dissolved gas (TDG)
Large woody debris	Boat lifts	Temperature
Utilities	Pilings	Noise and vibrations
Electrical facilities (PUD and others)	Swim platforms	Legacy chemicals and other toxins
Water intakes	Discharge lines	
Pumping facilities	Net pens	
Outfalls (surface and seepage)	Fishing platforms	
Structures and facilities	Habitat enhancements / modifications	
Docks	Footings	
Marinas		
Retaining walls		
Bulkheads		
Roads		
Stairways and steps		
Foot bridges		
Fencing		
Signs		
Dredging		
Fueling stations and storage		
Fill		
Off site run-on		
Bank stabilization		
Erosion control		
Swim beaches		
Adjacent trails		
Illegal fill		

5.2.1 MINOR MODIFICATIONS

If, during annual review of issued permits, discussions with local government planning or permitting staff reveals increased demand for Non-Project uses in a particular location, changes in development patterns or other land use issues that may be relevant to the Land Management Program arise, Chelan PUD will note the location and monitor such developments. As long as resource and use criteria established by this Land Management Program do not change, Chelan PUD will not seek additional review by stakeholders.

Chelan PUD also anticipates the potential need to make site-specific changes in the location of Land Management Classifications to reflect on-the-ground conditions that were not anticipated or observed when it developed the classification mapping. This will most likely involve minor relocation of classification boundaries or site-specific waivers dependent on field observations. Unless a Land Management Classification is entirely removed or modified to an extent that requires remapping the entire location, Chelan PUD does not intend to amend the Land Management Program. During the review of Project mapping, minor changes, such as new development within an existing subdivision adjacent to the reservoirs or changes in recreational uses, will be noted in the Chelan PUD land use database and on the Project maps but are not anticipated to warrant amendments to the Land Management Program. These changes will be captured in Chelan PUD's monitoring and tracking system. Updated maps will be made available on Chelan PUD's web site or by hard copy, if requested.

5.2.2 POTENTIAL LAND MANAGEMENT PROGRAM AMENDMENTS

Major changes within the Project Boundary may change goals and assumptions presented in this Land Management Program. Chelan PUD established the following criteria that may indicate the need to consider a Land Management Program amendment:

New Residential Uses, Pressures, or Development Opportunities: These may include county-approved modifications to existing zoning, new housing developments, infrastructure improvements that could lead to new development, or socioeconomic changes affecting the influx, and out-migration of populations.

Major Commercial Upgrades or New Uses: Land adjacent to the Project reservoir may experience commercial growth or development. This could change over the lifetime of the Land Management Program and may necessitate reconsideration of Chelan PUD's management policies. Chelan PUD will continue to monitor this type of Non-Project use and compile data that may be useful in the event a Land Management Program amendment becomes necessary during the review period.

Large Parcel Land Sales/Major Changes in Land Ownership: In the event that major parcels of previously undeveloped land change ownership, with an identifiable purchaser and new intent for use, Chelan PUD may review the Land Management Classification designation to determine if amendments to the Land Management Program are warranted.

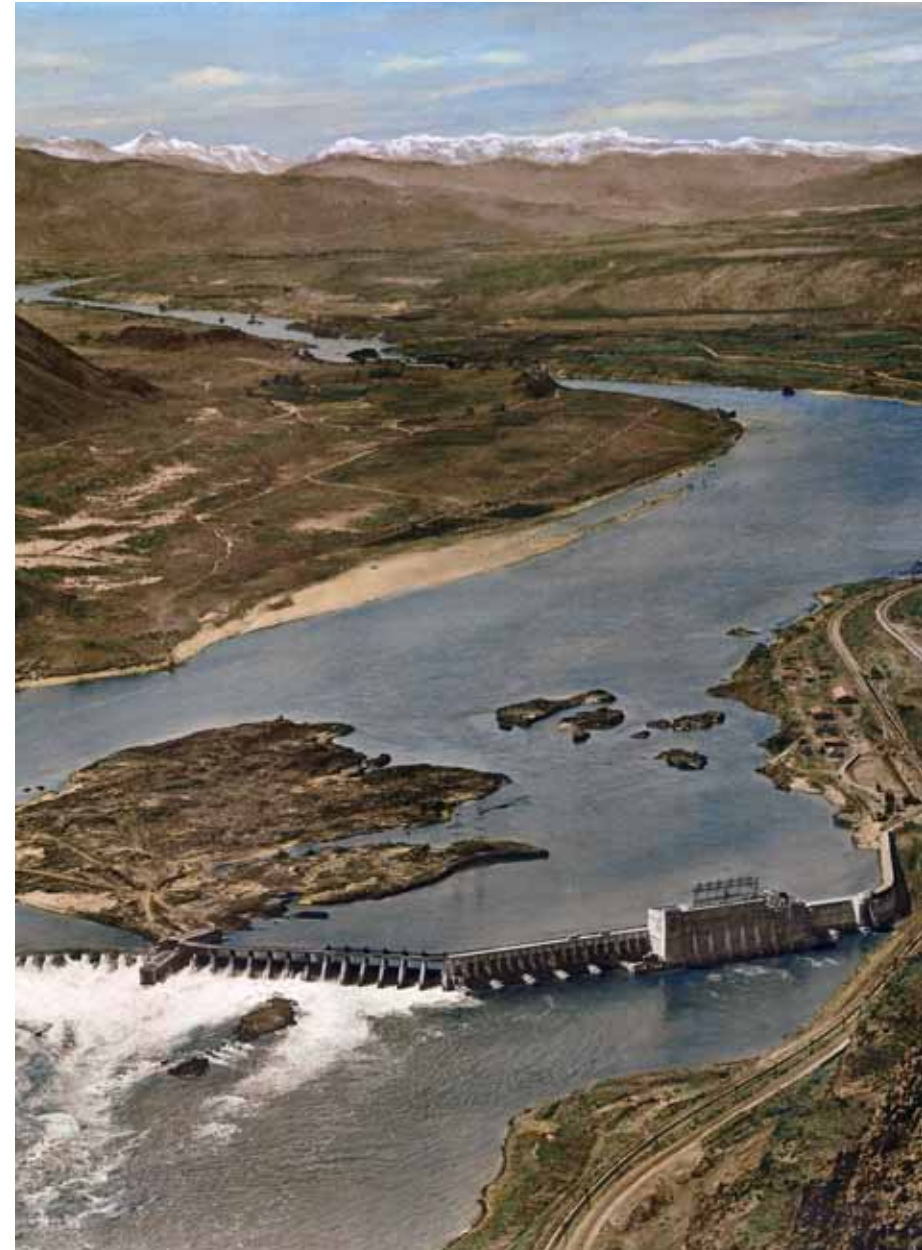
Changes within the Management Classifications: The Land Management Classifications identified in this Land Management Program are based on environmental, cultural, and aesthetic resources. Some of these classifications are dynamic by nature. It is possible that within the review period new concerns such as nuisance aquatic vegetation or wetland habitat may change, therefore necessitating the re-evaluation and possible amendment of both management classifications as well as the allowed uses within them. Chelan PUD also acknowledges the possibility that mapping of the classifications may require site-specific modification. It will, during its six-year review of the Land Management Program, compare the original mapping with mapping it has updated in the interim between Land Management Program implementation and review period to assess

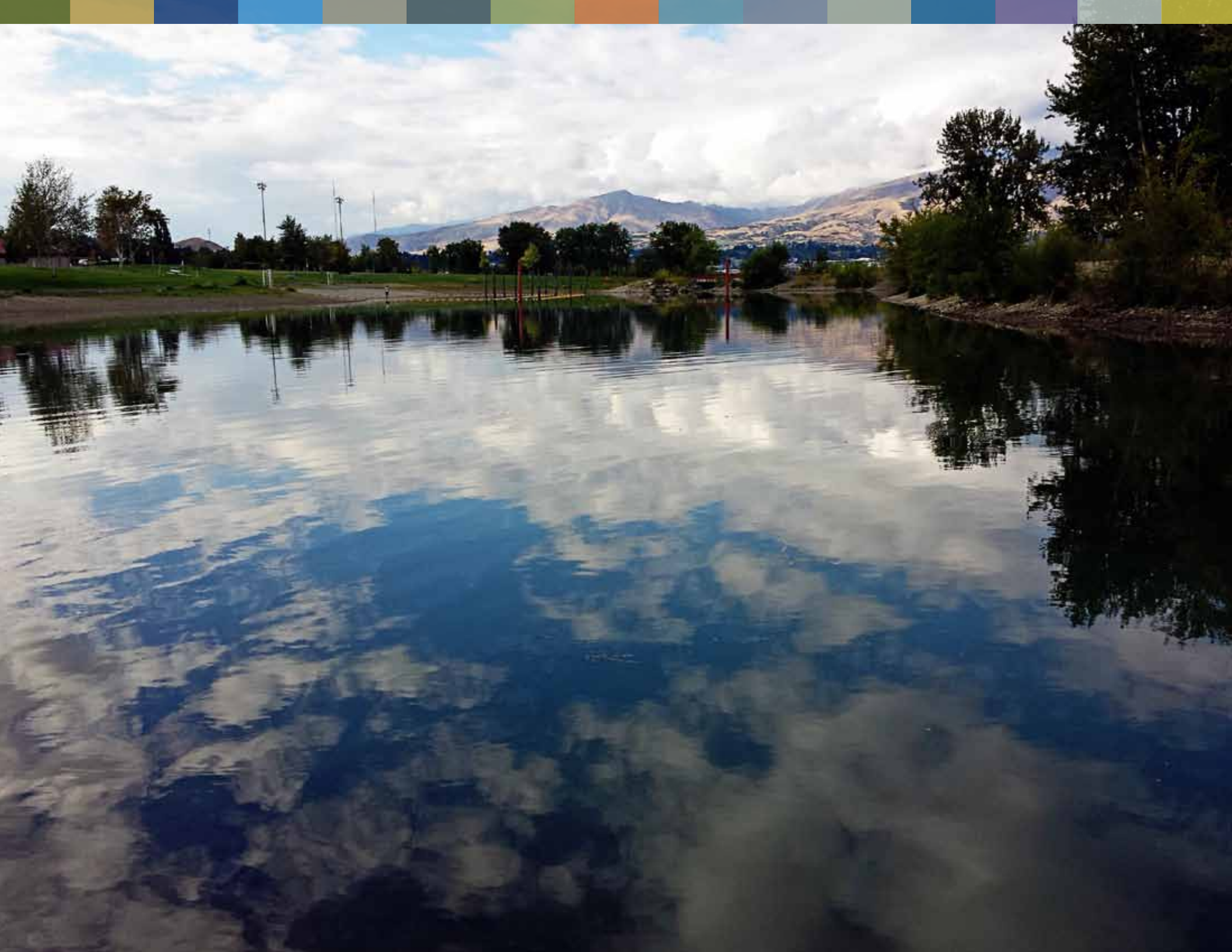
any changes in classification locations over time. If this change has resulted in significant modification of a particular Land Management Classification area, Chelan PUD will consider the need to amend the Land Management Program.

5.2.3 AMENDMENT PROCESS

Chelan PUD will update Project and resource maps on an ongoing basis to assure they reflect field conditions. As long as Land Management Program-established resource and use criteria do not change, Chelan PUD will not seek additional review or consultation with the public or jurisdictional agencies. If it appears there may be major impacts on the Land.

Management Program's effectiveness, Chelan PUD will initiate agency and public review of Land Management Program language and/or assessment of the overall document. Chelan PUD will invite stakeholder reviewers (who may include representatives from various coordinating committees, county planning staff, and other interested stakeholders) to assess if any changes need to be made to the Land Management Program. If, after this consultation, Chelan PUD determines that an amendment to the plan is necessary, Chelan PUD will develop and provide draft language to interested parties, and implement such changes, as approved. These changes may include revising Land Management Classification definitions, or permitting process changes. Chelan PUD will continue to coordinate and consult with jurisdictional agencies, tribal representatives, stakeholders, and local government planning staff throughout the Land Management Program revision or redrafting process and will supply a final revised document to these entities as well as on its Project website.





6 RESOURCES WITHIN THE PROJECT BOUNDARY

This Section provides a general overview of Project resource considerations specific to the Land Management Program. Chelan PUD is undertaking many resource-specific management activities within the Project Boundary. These management plans and several existing FERC licensing documents provide descriptions and analysis of the Project's aquatic and terrestrial species and habitats, land use, cultural resources, recreation, and aesthetics.

Furthermore, while this document serves as the current land management plan for the Project, the Rock Island Hydroelectric Project License expires in 2028 and the relicensing process will begin about 2018. Environmental resource studies will be conducted during the relicensing process. Chelan PUD anticipates the development of environmental resource management plans that will describe the existing environment, ongoing Project-related impacts and proposed measures to address those impacts. At that time, the appropriate changes will be made to update this LMP.

6.1 REGIONAL SETTING

The Rock Island Dam was the first dam to span the Columbia River and is located at river mile 453.4. The Rock Island reservoir extends from river mile 454 upstream to the tailrace of the Rocky Reach Hydroelectric Project (FERC No. 2145) at about river mile 474. The reservoir is 3,300 acres in area, with a typical width of 1,500 feet. Numerous dams and impoundments developed for hydropower and flood control alter the natural flow in the basin. The most significant tributary within the Rock Island Hydroelectric Project area is the Wenatchee River.

Currently, Wenatchee is the largest city in north central Washington, drawing people from all over the region for its temperate climate,

moderate housing prices, and recreational opportunities. The area experienced its largest population increase between 1990 and 2000, growing by more than 6,000 to a population of 27,856. 2010-census information indicates additional growth of approximately 10,000 residents (US Census, 2010). East Wenatchee is the largest community in Douglas County, with a 2012 population of 13,280 (MRSC, 2012).

6.2 GEOLOGY AND SOILS

The Columbia Basin includes physiographic provinces in both the U.S. and Canada. The Project is located in the Mid- Columbia River region where the river approaches the north side of the Wenatchee mountain uplift and is deflected about 10 miles eastward onto the lava plateau underlain by the Columbia River basalts. The river has cut a 600-foot-deep canyon into the Columbia Plateau basalts (NMFS, 2002).

The valley bottom is about 7,000 feet wide at the site of the Rock Island Dam. Original selection of the site was based on the availability of shallow bedrock at the Rock Island Rapids. The Rock Island rapids were formed by a flat-topped mass of basalt called Rock Island. Part of this island is still visible at the dam site. The rapids were positioned against the east (left bank) side of the valley due to the deposition of a large glacial-age terrace on the west side of the valley. The dam, powerhouses, and spillway are built on basalt and tuffaceous bedrock (NMFS, 2002).

Soil types in the vicinity of the Project include the Peoh and Cashmont soil series. The Peoh soils are a gravelly, fine, sandy loam, formed in old alluvium with a surface layer of loess and volcanic ash, with slopes of 3 to 15 percent on the terraces with moderately rapid permeability, slow to moderate run-off potential, and a water erosion susceptibility of slight to none. The Cashmont soils are a sandy loam, formed in alluvial and colluvial materials derived from basalt, with slopes of 3 to 8 percent at the edges of the terraces and near the valley walls. They have moderately rapid permeability, slow to medium run-off potential, slight

to moderate water erosion susceptibility, and slight to moderate wind erosion potential (NMFS, 2002).

Glacial and great Missoula flood deposits underlay the reservoir and form the reservoir and former Columbia channel banks. Alluvial sediment, transported by the Columbia River prior to construction of the Rocky Reach Dam (29 years after the Rock Island Dam was constructed), deposited in the upper end of the Rock Island reservoir. Sand and gravel occur in the upstream portions of the reservoir with sand and silt being deposited in the downstream portions. Additional sediment is deposited in the reservoir in the form of a delta where the Wenatchee River enters the reservoir. Suspended sediment transport in the Mid- Columbia River is relatively low. Each upstream reservoir allows a portion of the seasonally high suspended sediment loads from the Upper Columbia River to settle out during transit. Direct input of fines from the tributaries is now the main source of silt and fine sand into the Rock Island reservoir. The fine sediment deposits on the bottom where it is often reworked by slumping off the steep reservoir edges and by higher velocities that occur during extreme flood flows. This tends to move the deposited clay, silt, and fine sand into the deeper portions of the reservoir (NMFS 2002).

Shoreline erosion occurs in some locations around the Project reservoir. Project operations may influence erosion in some instances by exposing parts of the shoreline above the pre-Project normal high water line to the effects of waves and current; however, overall the water levels fluctuate less due to the presence of the dam and run-of-river operations. As such, erosion is expected to be lessened compared with pre-Project conditions.

Chelan PUD has completed a helpful guide available to the public for erosion control techniques and has implemented the techniques at several park sites for demonstration purposes. Further information about the erosion control techniques and the location of the

demonstration sites can be found on Chelan PUD's web site at www.chelanpud.org.

6.3 WATER QUALITY

Under the 2011 State Water Quality Standards, the Columbia River at the Project includes designated uses for spawning/rearing (aquatic life), primary contact recreation, and water supply and other miscellaneous uses. Numeric criteria that support the protection of these designated uses consist of various physical, chemical, and biological parameters including total dissolved gas (TDG), temperature, dissolved oxygen (DO), turbidity, and toxins (WDOE, 2011).

Water quality sampling in the Rock Island reservoir undertaken by the WDOE in 2006 indicated that water quality overall met or exceeded expectations and is of lowest concern. Only minor deviations from temperature limits were recorded at the sampling station approximately 14 miles upstream of the dam (WDOE, 2006). The WDOE 2012 Water Quality Assessment, used to identify statewide water quality concerns, recognizes one water quality concern within the Project area waters. Currently, the segment of the Columbia River that includes the Rock Island Hydroelectric Project (portions with Water Resource Inventory Areas 44) has sites listed for temperature and TDG. There are additional tissue listings for the historic pesticides PCBs and DDT (WDOE, 2012).

Chelan PUD, in coordination with the U.S. Army Corps of Engineers (ACOE) and other Columbia River hydroelectric project operators, has been spilling water for downstream fish passage at the Project since 1976 to improve anadromous salmonid survival during downstream migration. Spill can also occur when high stream flows exceed the hydraulic capacity of the powerhouse or, occasionally, when energy demand is low and river flows are high. TDG levels in the forebay and tailrace of the upstream Rocky Reach Project vary throughout the spring and summer, likely due to changing spill volumes and upstream

TDG levels associated with upstream projects' spill. TDG monitoring results have not demonstrated a strong causal relationship between spill volume at the Rocky Reach Hydroelectric Project and TDG levels in the forebay of Rock Island Dam. The level of TDG arriving at the Rocky Reach Project has a greater influence on TDG levels reaching the Rock Island forebay (FERC, 2004).

Water quality in the Columbia River at Rock Island is generally good. Dissolved oxygen levels do not typically drop below the State Class A minimum standard of 8.0 milligrams per liter. Occasional dissolved oxygen concentrations below the standard may occur when hot weather coincides with irrigation withdrawals, low flows, and irrigation return flows containing high levels of nutrients and organic matter. Turbidity and suspended solids are usually low. The pH levels have exceeded the standard at Rock Island, but yearly averages are within the standard 6.5 to 8.5 range. Total phosphate concentrations at the dam indicate enriched nutrient conditions that could promote excessive production of algae and other aquatic plants. Water temperatures at Rock Island Dam sometimes exceed State standards set by Washington Department of Ecology (WDOE) (64.4° F or 18°C) (NMFS, 2002).

The Columbia River generally has low turbidity. The Project area consists of igneous and metamorphic rock at the base of the Cascade Mountains to the west, basaltic material from the lava flows that created the Waterville Plateau to the east, and glacial outwash materials from the deep carving of the river valley itself. The tributaries that feed the mid-Columbia are glacially carved primarily. The result is very low sediment loads. Turbidity does increase during periods of high inflow from the tributaries (NMFS, 2002).

6.4 AQUATIC RESOURCES

6.4.1 RESIDENT FISH SPECIES

Approximately 44 species of fish are reported or have the potential to occur within the Project reservoir. The most abundant resident fish species reported historically were northern pikeminnow (*Ptychocheilus oregonensis*), stickleback (*Gasterosteus aculeatus*), and suckers (*Catostomus* sp.), predominantly bridgeline (*C. columbianus*) and largescale suckers (*C. macrocheilus*). Mountain whitefish (*Prosopium williamsoni*) and pumpkinseed (*Lepomis gibbosus*) were historically the most abundant resident game fish. Other abundant species historically reported were bluegill (*L. microchirus*), northern pikeminnow, peamouth (*Mylocheilus caurinus*), and carp (*Cyprinus carpio*) (NMFS, 2002).

The salmonid species found primarily in the tributary or non-mainstem areas include kokanee (landlocked sockeye salmon) (*Oncorhynchus nerka*), bull trout (*Salvelinus confluentus*), rainbow trout (resident form of steelhead) (*Oncorhynchus mykiss*), westslope cutthroat trout (*Oncorhynchus clarki lewisi*), mountain whitefish, and pygmy whitefish (*P. coulteri*).

6.4.2 ANADROMOUS FISH SPECIES

The anadromous fish species that occur in the Project area include: chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), sockeye, steelhead (*Oncorhynchus mykiss*), Pacific lamprey (*Entosphenus tridentatus*), and the semianadromous white sturgeon (*Acipenser transmontanus*).

6.4.2.1 COHO AND SOCKEYE SALMON

Historically, coho salmon were present in both the Columbia and Snake River Basins including major tributaries such as the Wenatchee, Entiat, and Methow Rivers. Tributary dams, unscreened irrigation diversions, and extensive harvest decimated populations in the

early 1900s and indigenous coho salmon no longer occur in the Mid-Columbia River region. In recent years, with the reintroduced stock, coho salmon spawn in the Lower Columbia River tributaries from October to mid-December. Juveniles typically spend 1 year in freshwater before outmigrating as yearling smolts in April and May. Coho salmon typically spend about 18 months at sea before returning to spawn (NMFS, 2002).

The distribution of sockeye salmon in the Mid-Columbia River region is limited to the Wenatchee and Osoyoos Lakes, however, limited numbers of adults and juveniles are periodically detected in the Methow, Entiat and Mid-Columbia Rivers and Icicle Creek. The Grand Coulee Fish Maintenance Project was a program to preserve the Upper Columbia River anadromous fish runs after the construction of Grand Coulee Dam, whereby all adult fish at Rock Island Dam were transported to tributary spawning areas for natural production or to hatcheries and then released into tributary streams downstream of the Dam. Adult sockeye salmon begin entering the Columbia River in May and pass the Mid-Columbia River dams between late May and mid-August. Adults reach natural lakes during July through September and spawn during September and October. Sockeye salmon fry emerge in March and April and move into freshwater lakes to rear for 1 to 3 years before migrating to the ocean. Sockeye salmon smolts typically pass the Mid-Columbia River dams between mid-April and late May during their outmigration (NMFS, 2002).

Chelan PUD has entered a voluntary agreement where, in consultation with federal, tribal, state and county stakeholders, the Anadromous Fish Agreement and Habitat Conservation Plan (HCP), Rock Island Hydroelectric Project was developed. The goal of the Rock Island HCP is to achieve No Net Impact (NNI) for each species affected by the Project. Per the Rock Island HCP, “NNI” consists of two components: (1) 91% Combined Adult and Juvenile Project Survival achieved by project improvement measures implemented within the

geographic area of the Project, (2) 9% compensation for Unavoidable Project Mortality provided through hatchery and tributary programs, with 7% compensation provided through hatchery programs and 2% compensation through tributary programs” (Chelan PUC, 2002)

The HCP sets forth a long-term adaptive management plan for Plan Species identified in the plan and their habitat as affected by the Project. Plan Species are defined as spring, summer, and fall Chinook salmon, sockeye salmon, coho salmon, and steelhead.

As of 2013, monitoring results for the Rock Island HCP demonstrate that NNI, Phase III, Standards Achieved, has been accomplished for spring-run Chinook salmon, sockeye salmon, and steelhead at Rock Island Dam. Work is continuing for investigating achieving NNI for summer/fall-run Chinook salmon.

6.4.2.2 WHITE STURGEON

White sturgeon is a long-lived, primitive fish species that forages primarily along the river bottom of large river systems in the Pacific Northwest. They occur throughout the basin and are thought to be successfully reproducing in some of the mainstem Columbia River reservoirs (Setter and Brannon, 1992). Adult fishway passage counts at mainstem Columbia River dams demonstrate that white sturgeon use fishways rarely for upstream passage. Therefore, white sturgeon populations have become small, isolated, and diminishing populations between mainstem dams. Fishery managers have recommended that some level of supplementation be conducted by dam operators and owners in order to rebuild white sturgeon population levels in the Columbia River.

6.4.3 FEDERALLY LISTED SPECIES

Three fish species federally listed under the Endangered Species Act (ESA) as threatened and endangered and two as species of concern occur in the Project area. These are the upper Columbia River bull

trout (listed as threatened by USFWS), upper Columbia River summer steelhead (listed as threatened NMFS; reclassified 2009 as threatened)), upper Columbia River spring-run Chinook salmon (1999 listed as endangered by NMFS). Pacific lamprey (a federal species of concern by the USFWS) and westslope cutthroat trout (a federal species of concern by the USFWS) also occur within the Project area. Bull trout are considered both a resident fish species and a migratory fish species. Steelhead and spring Chinook salmon are anadromous fish species, as discussed above.

6.4.3.1 BULL TROUT

Bull trout pass the mid-Columbia dams between May and October, with the majority passing during May through July. All mainstem dams within the proposed critical habitat reach are equipped with passage facilities for upstream passage of adult anadromous salmonids and provide for downstream passage of juvenile anadromous salmonids through bypass facilities. Bull trout move upstream and downstream between dams and tributaries in the upper Columbia without affecting their ability to reach spawning grounds (USFWS, 2002). The mainstem Columbia River including the various project reservoirs provides an abundant food source for migratory bull trout during the fall, winter and spring. Bull trout populations have been identified in the Wenatchee, Entiat and Methow rivers, while they are thought to be extirpated from the Okanogan River. This species was likely never abundant in the mainstem Columbia River (Mongillo, 1993). The USFWS designated the Columbia River, including the Rock Island reservoir, as critical habitat for bull trout in 2010.

In 2004, the USFWS, after concluding its ESA section 7 consultation on operation of the Rocky Reach and Rock Island projects consistent with the Rocky Reach and Rock Island Anadromous Fish Agreement and Habitat Conservation Plans (HCPs), issued a Biological and Conference Opinion (Opinion) on the License amendments to

incorporate the HCPs into the existing federal operating Licenses for both Projects. The Opinion analyzed potential effects of HCPs operations on bull trout, which are not directly covered by the HCPs. The USFWS concluded in the Opinion that operation of the Projects, consistent with implementation of the HCPs, is not likely to jeopardize the continued existence of the Columbia River distinct population segment of bull trout.

In the Opinion, the Service issued an accompanying incidental take statement to Chelan PUD that includes reasonable and prudent measures and terms and conditions designed to minimize the incidental take of bull trout at the Rocky Reach and Rock Island projects. These measures, along with the impact minimization measures, formed the basis for development of Comprehensive Bull Trout Management Plans (BTMPs) for the Rocky Reach and Rock Island projects (Chelan PUD 2005a, 2005b). Throughout the remaining term of the Rock Island License, the Rock Island BTMP will be the guiding document to implement goals for monitoring and minimizing potential adverse effects on bull trout related to Project operations and facilities. Activities associated with the Rock Island BTMP include the following:

Juvenile Passage

Continue to collect and evaluate passage events for adult and juvenile bull trout in order to monitor monthly passage trends through adult fishways. Implement a monitoring and evaluation program. Continue to capture digital pictures of bull trout passing through fishways at Rock Island Dam.

Adult Passage Monitoring

Conduct the following to monitor adult bull trout passage: 1) continue ladder counts; 2) maintain adult fishways in accordance with anadromous fish criteria; and 3) expand video counts to off-season for an experimental period of 1 year.

Tributary Habitat Enhancement

Consider collecting and hauling large woody debris from Rock Island and placing it in tributaries as part of the HCP tributary enhancement plan.

Compliance with Recovery or Management Plans

Continue to participate in ongoing recovery plan meetings and assist with recovery tasks to address uncertainties on project effects on bull trout that are outlined in the recovery plan.

6.4.3.2 STEELHEAD

Summer- and winter-run steelhead occur in the Columbia River Basin. Steelhead exhibit an extremely complex array of life-history characteristics. All steelhead returning to tributary streams upstream of the confluence of the Yakima River and Columbia River and those produced at the Wells Fish Hatchery are considered by NMFS as UCR summer steelhead belonging to the same Distinct Population Segments (DPS). Only anadromous forms of steelhead are listed as threatened or endangered due to uncertainties regarding the status of resident steelhead (rainbow trout) and interactions between the two life history form (NMFS, 2002).

Steelhead eggs incubate from late March through June, and fry emerge in late spring to August. Fry and smolts disperse downstream from spawning locations in late summer and fall. Steelhead use of tributaries for rearing depends upon population size, weather and flow conditions. Smolts typically emigrate from the Wenatchee River in March to early June, after spending between 1 and 7 years in freshwater, with most leaving after 2 to 3 years, though some are thought to live their entire lives in freshwater. Juvenile steelhead, from both hatchery and natural tributary origins, appear to migrate actively through the Project reservoir. Residence time in the reservoir is limited to a period of days

(Chelan PUD, 1991). NMFS has designated the Columbia River as critical habitat for steelhead.

6.4.3.3 CHINOOK SALMON

The Upper Columbia River Evolutionarily Significant Unit of spring-run chinook salmon was listed as endangered under the Endangered Species Act in March 1999. Chinook salmon passing the Rock Island Dam before June 23 are considered spring-run Chinook salmon. Adult spring-run Chinook salmon pass the Project on their way to spawning grounds in upstream tributaries, including the Wenatchee, Entiat, and Methow Rivers (Peven, 1992). This typically occurs from late April to late June (Stuehrenberg, et al., 1995), with the highest rate of passage (90 percent of all fish passed) occurring from May through the beginning of June (FPC, 1995). These stream-type Chinook salmon exhibit substantially more diverse life-history strategies than ocean-type salmonids, probably as a result of differences in the environmental conditions found in the various tributary streams where these fish spend their first year and a half of life. After entering the tributaries, the adults hold in the deeper pools and under cover until the onset of spawning. They may spawn near their holding areas or move upstream into smaller tributaries. Spawning generally occurs from late July through September and typically peaks in late August. Spring-run Chinook salmon eggs hatch in late winter and the fry emerge from the gravel in April and May (Peven 1992). Most of these juveniles rear in freshwater for 1 year before migrating to the ocean, passing the Mid-Columbia River dams between mid-April and mid-June (Mullan 1987). The outmigration of naturally produced spring-run chinook salmon juveniles typically occurs over a longer period than hatchery fish. In addition, naturally produced juveniles are generally smaller than hatchery fish. Observations suggest that the residence time of juvenile stream-type Chinook salmon in the Project reservoir is no more than a

few days to a week because these fish only use the Columbia River as a navigation route, not extended rearing habitat (Chelan PUD, 1991).

Most adult summer/fall-run chinook salmon enter the Columbia River from late May to early July and pass the Mid-Columbia River dams from late June through October, after spending 3 or 4 years in the ocean. Although these two groups of fish are considered part of the same Evolutionarily Significant Unit, and are characterized as ocean-type fish, they spawn in different areas of the basin. Fall-run Chinook salmon are also known to spawn in the tailraces of Priest Rapids, Wanapum, Chelan Falls, Wells, and Chief Joseph dams, and possibly below Rocky Reach and Rock Island dams. Fall-run Chinook salmon spawning also occurs in the Priest Rapids reservoir, Rock Island reservoir, Rocky Reach reservoir, and upstream of Wells Dam, where suitable water velocities and substrate conditions occur. However, the extent and magnitude of this spawning activity is unknown. Juveniles emerge in April and May and move downstream within a few days to a few weeks. Ocean-type fish generally migrate to the ocean as age-0 subyearlings in late summer and early fall months, passing the Mid-Columbia River dams between June and August. The Columbia River is designated as critical habitat for Chinook salmon by the USFWS.

6.4.3.4 PACIFIC LAMPREY

The juvenile and adult migration life stages of Pacific lamprey occur in most tributaries to, and in the mainstem of, the Columbia River. They have cultural, utilitarian and ecological significance in the basin since Native American Indian tribes have historically harvested them for subsistence, ceremonial and medicinal purposes (BioAnalysts, 2000b). The amount of information about the life history and status of lamprey in the mid-Columbia River watersheds has increased greatly over the past several years. Adults generally spawn in low-gradient stream reaches in the tail areas of pools and in riffles over gravel substrate (Jackson, et al., 1996) and subsequently die. After hatching, the

larvae burrow into soft substrate for an extended larval period, during which they feed by filtering particulate matter from the water column (Meeuwig, et al., 2002). The larvae undergo a metamorphosis between three and seven years after hatching, and migrate from their parent streams to the ocean from March to July, peaking in April.

6.4.4 STATE LISTED FISH

The only state listed sensitive species in the Project area is the pygmy whitefish. River lamprey (*Lampetra ayresi*), lake chub (*Couesius plumbeus*), leopard dace (*Rhinichthys falcatus*), and mountain sucker (*Catostomus platyrhynchus*) are candidates for State listing. Coho salmon, kokanee, white sturgeon, channel catfish (*Ictalurus punctatus*), largemouth bass (*Micropterus salmoides*), smallmouth bass (*M. dolomieu*), and walleye (*Stizostedion vitreum*), are State listed as priority species with recreational, commercial, and/or Tribal importance.

6.4.5 PYGMY WHITEFISH

Pygmy whitefish are a native species, currently found in relic populations in western North America. WDFW list this species as sensitive. Pygmy whitefish are not found in the Project area. The only known population adjacent to the Project area is in Lake Chelan (Hallock and Mongillo, 1998).

6.5 AQUATIC HABITAT

The majority of the lands surrounding the Rock Island Project are undeveloped, and riparian habitat adjacent to the reservoir is sparse, characteristic of the dry land climate. The reservoir has relatively rapid flushing rates and limited thermal stratification during summer. Much of the shoreline is steep with relatively little littoral area in comparison to their size. Rapid water exchange and relatively featureless shorelines limit juvenile anadromous salmonid rearing habitat. Because of the rapid flushing rate and the flow-through characteristics of the reservoir,

primary productivity is largely dependent on detritus, sessile (attached) algae, and macrophytes. The turnover time of water in the pool is too short in summer to permit development of extensive and diverse zooplankton communities (NMFS, 2002).

Submergent aquatic plants are also present in portions of the reservoir. The dominant species within the aquatic plant communities in the reservoir is non-native Eurasian water milfoil (*Myriophyllum spicatum*), which forms large, dense monotypic beds with a relatively low volume to edge ratio. These conditions may not provide as much cover and rearing opportunities as native plants, but they still offer substantial shallow water rearing habitat. Only under very dense conditions, would milfoil act to reduce the productive capacity of aquatic habitats.

For spring-run chinook salmon, coho salmon, sockeye salmon, and steelhead the tributary habitat appears to be more important rearing habitat than the mainstem reservoir areas. Substantial time is spent rearing in freshwater areas. Sockeye salmon are particularly dependent on the lake environments for juvenile rearing. Steelhead can spend considerably longer periods of time in freshwater rearing as juveniles, as compared to other species. The mainstem areas function primarily as a migration corridor, although some rearing also occurs for sockeye salmon during their outmigration.

As part of the HCP, Chelan conducted an aquatic habitat assessment of the tributary watersheds of the Project area. The assessment includes plans for habitat protection and restoration for the Wenatchee, Entiat, Methow, and Okanogan watersheds (NMFS, et al., 1998).

6.6 TERRESTRIAL

6.6.1 FEDERALLY LISTED SPECIES

Wildlife species that use shoreline habitats include terrestrial mammals, shorebirds, songbirds, amphibians, and reptiles.

There are no records of federally listed species present in the project area or immediate vicinity.

6.6.2 STATE LISTED SPECIES

State threatened and endangered species present in both the project area and associated tributaries are the American white pelican (*Pelecanus erythrorhynchos*), Colombian sharp-tailed grouse (*Tympanuchus phasianellus*), and bald eagle (NMFS, 2002).

6.6.3 HABITAT

The Project is located in the rain shadow of the Cascade Range and has arid to semi-arid climates, low precipitation, dry summers with warm to hot temperatures, and cold winters. Average precipitation in the entire Columbia River Basin is less than 20 inches annually, with much of this occurring in the winter. Some marine influences occur in the alpine zones of the Cascades where as much as 40 to 140 inches of precipitation occurs, mostly as snow (FERC, 2004).

The Columbia River floodplain and the foothills of the Cascade Mountains are primarily within the big sagebrush/bluebunch wheatgrass or shrub-steppe vegetation zone. Records indicate that the flora is dominated by big sagebrush (*Artemisia tridentata*), rabbitbrush (*Chrysothamnus* spp.), bitterbrush (*Purshia tridentata*), bluebunch wheatgrass (*Agropyron spicatum*), balsamroot (*Balsamorhiza sagittata*), and numerous non-native weed species (NMFS, 2002).

Development of riparian vegetation in the project area is restricted by the arid conditions, rip-rapped embankments, and agricultural development. Wetland habitat in the vicinity of the Rock Island Dam includes mostly emergent habitats dominated by cattail (*Typha latifolia*) and bulrush (*Scirpus* spp.). Small areas of shrub-dominated wetlands are predominately willows and Russian-olive (*Elaeagnus angustifolius*) (NMFS, 2002).

There is a diverse array of avian habitat within the Project area and surrounding vicinity. There are approximately thirteen islands in the reservoir used for waterfowl nesting. Chelan PUD maintains wood duck nest boxes and goose nesting platforms as a mitigation requirement for the Project. Small mammals, upland game birds, and songbirds use areas along the Project shoreline and raptors nest near the Project reservoir. Human occupation and land use occurs throughout the Project area, ranging from residential and commercial development to irrigated orchards (predominantly apple, pears, and cherries) and rangeland grazing. These land use practices typically result in the change from native plant communities to communities dominated by non-native plants (NMFS, 2002).

6.7 LAND USE

The Rock Island Hydroelectric Project consists of the dam, two powerhouses, transmission towers and lines, maintenance facilities, offices, a fish ladder and off-site hatchery facilities, four parks discussed in further detail below. Land ownership and uses within the project boundary include private, State, and Federal lands used for recreation, conservation, range land, and private residences. There are no adjacent land uses in the immediate vicinity of the dam to the east because of the steep bluffs located next to the Columbia River in this area. Zoning along the Columbia River in the vicinity of the Rock Island Dam is dryland agriculture on the Douglas County side (east) and rural/industrial on the Chelan County side (west) (NMFS, 2002).

6.8 CULTURAL RESOURCES

Within the Rock Island Project area, the Sinkiuse and Wenatchee occupied the banks of the Columbia River around Rock Island and the mouth of the Wenatchee River. Prehistoric sites within the Rock Island reservoir include summer and fall fishing camps, other temporary camps, and permanent village locations, and the majority of them

cluster around the confluence of the Columbia and Wenatchee Rivers. The Rock Island rapids area was also an important bighorn sheep hunting area (NMFS, 2002).

David Thompson and other fur traders from the North West Fur Company arrived in the Wenatchee valley by 1811. Indian-Euroamerican relationships in the area deteriorated in the late 1850s. The Sinkiuse never occupied the Columbia Reservation (also known as the Moses Reservation) that the U.S. Government set aside for them in 1879. The lands returned to public domain, and the band moved to the Colville Reservation. The Yakima Treaty grouped the Wenatchees with the Yakama because of their association at the Wenatschapam fishing site. Beginning in 1911, Wenatchee people began moving to allotments on the Colville Reservation (NMFS, 2002).

By 1860, the trappers populating the valley had been replaced by Euroamerican and Chinese placer miners. Wenatchee became a trading post for early settlers and miners and was incorporated in 1888. That same year, the first steamboat, the City of Ellensburg, traveled up the Columbia from Pasco to Brewster and used four guy lines to sail past Rock Island (NMFS, 2002).

The Great Northern Railroad entered the region in 1892, which prompted the city to move closer to this new transportation route and to the Columbia River. One year later, the railroad built the Rock Island Bridge, which, along with the Columbia River Bridge located further upstream, is now listed in the National Register of Historic Places. Rock Island Dam was the first hydroelectric project on the Columbia River. Puget Sound Power and Light Company constructed the dam between 1929 and 1933, and its innovative design included three fishladders (NMFS, 2002).

The Project's Cultural Resources Management Plan (CRMP) was developed by Chelan PUD and from initial cultural resource studies conducted at the Project in 1974, 1983, and 1985 (Cleveland and

Rice, 1974; Simmons et al, 1983; Galm and Erp, 1985). Chelan PUD conducts annual cultural resources monitoring of the reservoir.

6.9 RECREATION

Tourism and recreation are important to the local economies in the Project area. The reservoir, as well as numerous public parks in the project area, is popular sites for recreational activities including boating, camping, swimming, hiking, soccer, softball, and football.

There are four public parks on the reservoir, which are all owned by Chelan PUD and described below. In addition to the public recreational facilities in the Project area described below, there are many private residences along the reservoir with direct access to the water. Recreation at all sites on the river is most intensive during the summer season: Memorial Day through Labor Day.

6.9.1 PUBLIC FACILITIES

Wenatchee Riverfront Park

On Rock Island reservoir, Wenatchee Riverfront Park, owned and operated by Chelan PUD, covers 31 acres in downtown Wenatchee and includes 1.1 miles of shoreline trail, a special event mini-railroad, an ice rink, boat launch, short-term moorage, boat trailer parking, and restrooms. The park trail connects with Walla Walla Point Park and the Wenatchee Confluence State Park to provide 5 miles of paved bicycle and pedestrian trail. This trail connects to the Apple Capitol Loop Trail which follows along the east bank of the reservoir via bridges to East Wenatchee.

Walla Walla Point Park

Walla Walla Point Park covers 70 acres in Wenatchee and includes a soccer/softball fields, swimming, 1.2 miles of trail, tennis, volleyball court, horseshoe pits, playground equipment, restrooms, picnic shelters, and a special events area. The park is owned and managed by Chelan County PUD.

Wenatchee Confluence State Park

Wenatchee Confluence State Park covers 200 acres in Wenatchee on both sides of the Wenatchee River where it joins the Columbia River. The park provides 59 tent/recreational vehicle camping sites (51 of which have electricity, water, and sewer), a baseball/soccer/rugby field, boat launch, boat trailer parking, swimming, restrooms, showers, picnic shelter, volleyball and tennis courts, playground equipment, 4.5 miles of trail, wildlife area, interpretive signs, and a recreational vehicle dump station. The park is owned by Chelan County PUD and operated by Washington State Parks.

Kirby Billingsley Hydro Park

Rock Island Hydro Park is owned and managed by Chelan County PUD. It covers 70 acres and includes baseball/soccer fields, picnic areas, picnic shelter, swimming, boat launch, boat trailer parking, tennis, volleyball, 1.1 miles of trail, and restrooms.

6.10 PRIVATE FACILITIES

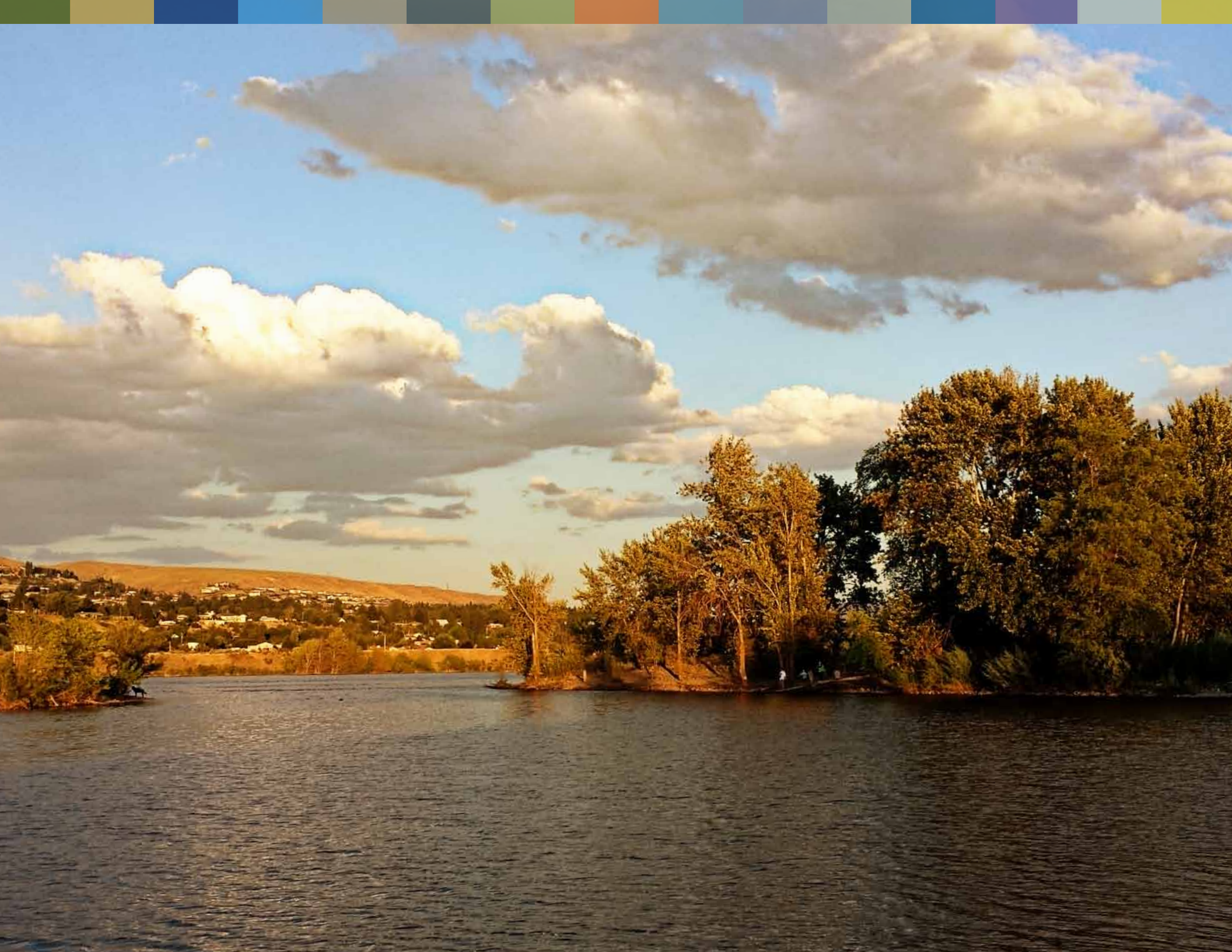
There is only one private facility on the reservoir, Hurst Landing which is located in Douglas County approximately four miles upstream of the dam. A private community dock is available to resident owners. There are 41 private docks and 19 private launches.

6.11 AESTHETICS

The Project area is located within the middle reach of the Columbia River, which is the geographic center of Washington State. However, because the project is on the east side of the Cascade Mountains, it is considered to be within eastern Washington. The Project setting is primarily rural (with the exception of the urbanized areas of Wenatchee and East Wenatchee). In general, surrounding area includes rangeland, irrigated farmlands, and a mixture of private and Federally owned lands.

In the vicinity of Rock Island Dam, the Columbia River valley narrows into steep bluffs. The reservoir extends approximately 20 miles and covers approximately 3,300 acres. Four parks along the river, constructed by Chelan PUD, provide scenic views of the reservoir.





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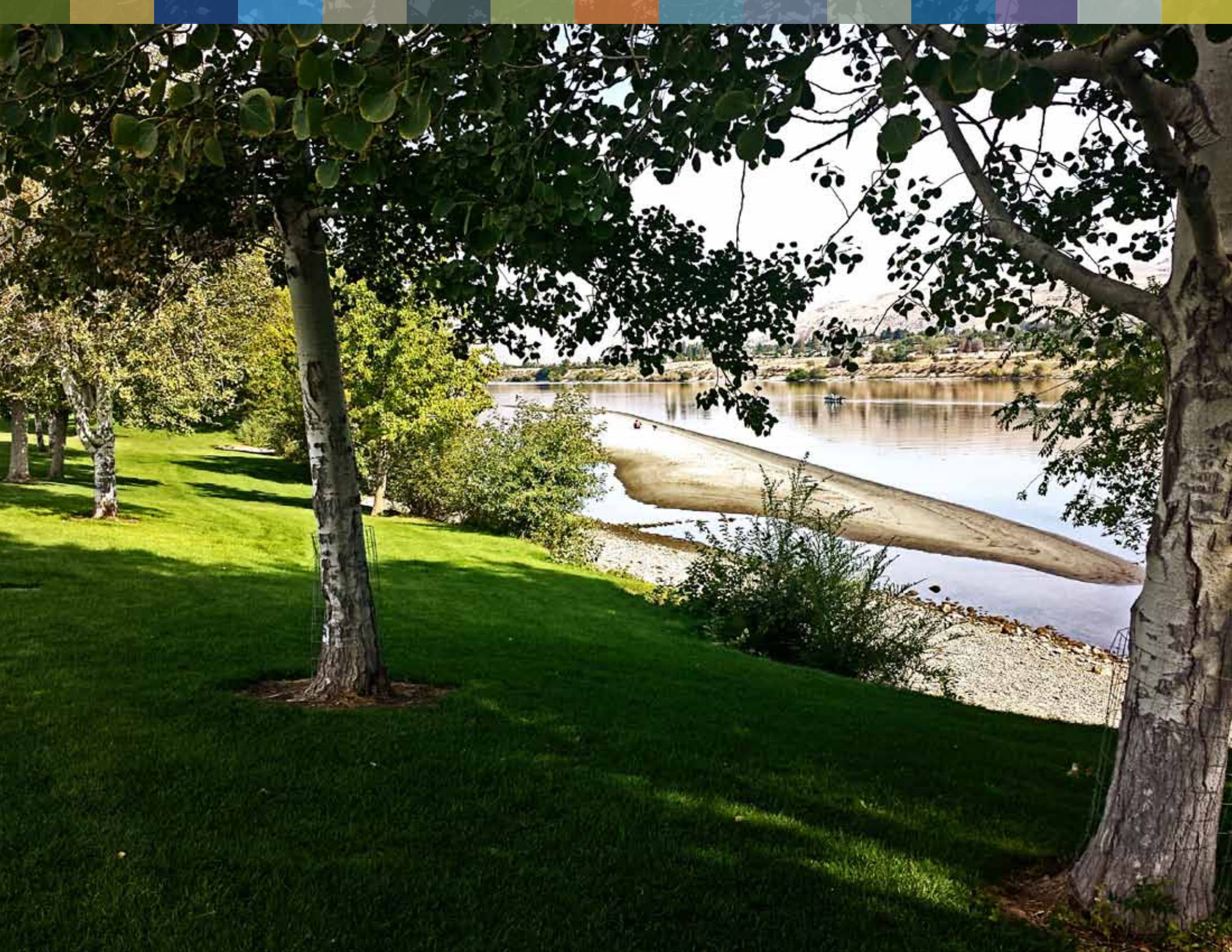
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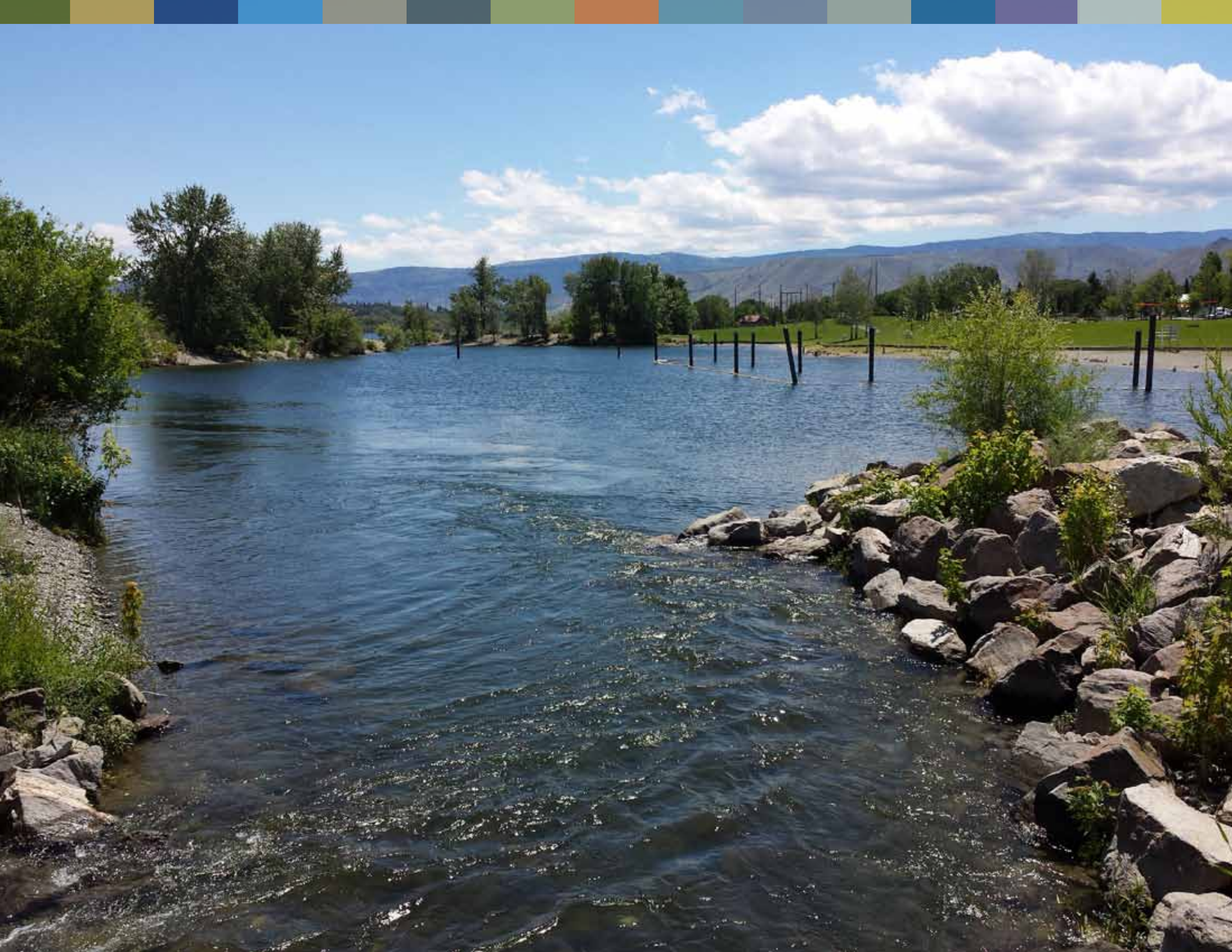
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ACRONYMS AND ABBREVIATIONS LIST

ACOE	U. S. Army Corps of Engineers
AIS	Aquatic Invasive Species
APE	Area of Potential Effect
Chelan PUD	Public Utility District No. 1 of Chelan County
EA	Environmental Assessment
EIS	Environmental Impact Statement
FERC or Commission	Federal Energy Regulatory Commission
FPA	Federal Power Act
FPC	Federal Power Commission
GIS	Geographic Information Systems
GPS	Global Positioning System
JARPA	Joint Aquatic Resource Permit Application
HCP	Habitat Conservation Plan
HPMP	Historic Properties Management Plan
MSL	Mean Sea Level
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service or NOAA Fisheries
OHW	Ordinary High Water

RTE	Rare, Threatened and Endangered Species
SEPA	Washington's State Environmental Policy Act
SHPO	State Historic Preservation Officer
SMA	Washington State Shoreline Management Act of 1971
USDA	U.S. Department of Agriculture
USDA-FS	U.S. Forest Service
USFWS	U.S. Fish & Wildlife Service
WDFW	Washington Department of Fish & Wildlife
WDOE	Washington Department of Ecology
WDOT	Washington Department of Transportation
WDNR	Washington Department of Natural Resources



STANDARD TERMS LIST

Allowable Use A Non-Project use or activity that may be approved to occur on land within the Project Boundary but for which a written approval in the form of a Permit or License from Chelan PUD and/or a governmental entity may be required.

Applicant A proponent of a Non-Project use applying for approval from Chelan PUD.

Aquatic Invasive Species⁽⁸⁾ Any prohibited, regulated, unregulated, or unlisted aquatic animal or plant species, any aquatic weed on the state noxious weed control list⁽⁹⁾ any nonnative aquatic plant or animal species⁽¹⁰⁾ that threatens the diversity or abundance of native species, the ecological stability of infested waters, or commercial, agricultural, or recreational activities dependent on such waters.

Chelan PUD Public Utility District No. 1 of Chelan County, the Licensee for the Rocky Reach Hydroelectric Project (FERC No. 2145)

Contiguous/upland Property Owner Property owners immediately adjacent to Chelan PUD property with no intervening ownership or public right-of-way

Federal Energy Regulatory Commission/FERC
Federal regulatory agency responsible for issuing hydroelectric generation license(s) and mandating/conditioning such licenses to accommodate Project operations, environmental and cultural resource protection, and public access (aka the Commission).

Federal Power Act Passed by Congress in 1920, vesting authority in the Federal Power Commission (now the FERC) to regulate the development and operation of nonfederal hydroelectric projects.

FERC Form 80 Report to FERC for periodic review of recreation use (every six years).

FERC License The License issued by FERC for a Project, setting forth the rights, privileges, and responsibilities of Licensees and others using lands and shorelines within the Project Boundary.

Jurisdictional Agency Local, state, and federal agencies having regulatory jurisdiction with respect to Lands and Waters within the Project Boundary and/or with respect to proposed uses.

Land Management An area the Land Management Program designates within the Project Boundary that depicts License conditions and management objective considerations.

Land Management Program A program describing how Chelan PUD will manage and regulate Non-Project uses of Lands and Waters within the reservoirs at the Project.

Licensee Holder of a FERC License (i.e. Chelan PUD)

Non-Project Use Uses of lands and shorelines within the Project Boundary other than for Project operations. Any activity or structure(s) within the Project Boundary not related to Project operations.

Ordinary High Water A designated elevation intended to correspond to the actual high water line around a Project reservoir during normal operation (aka “normal high water line”).

PUD Permit/License Written approvals conditionally granted by Chelan PUD for Non-Project use approvals within the Project Boundary.

(8) defined by RCW 77.08.010

(9) RCW 17.10.080, RCW 77.60.130(1)

(10) RCW 77.60.130(1)

Project The Rocky Reach Hydroelectric Project (FERC No. 2145) as defined in its FERC License.

Project Boundary As recognized by FERC, an administrative marker to clearly delineate those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources. The Project Boundary includes all Lands and Waters as identified on Exhibit G maps of the FERC License.

Project Lands and Waters Lands and shorelines located within the Project Boundary.

Project Operations Any use of lands and shorelines within the Project Boundary (including operation of the reservoir, maintenance, studies, and other actions) by Chelan PUD or its agent undertaken pursuant to, or in conformance with, the Project License.

Settlement Agreement The collaborative agreement filed with FERC (and incorporated into the Project License on February 19, 2009) to resolve the relicensing of the Project.

Shoreline The area of interface between a river, stream or reservoir and uplands.

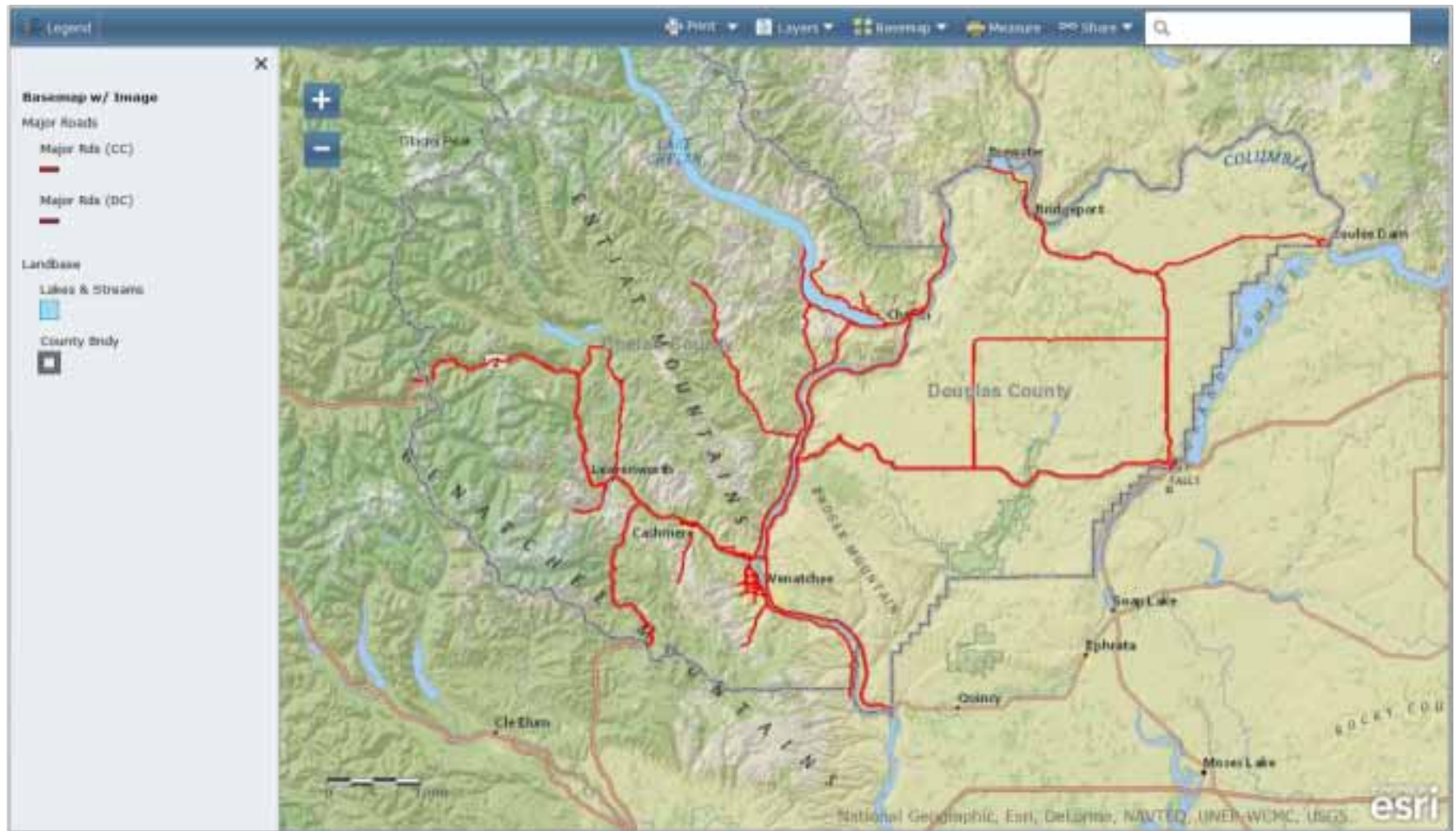
Stakeholders The public, tribes, federal, state, and local agencies, non-governmental organizations, and other parties interested in the operations of the Project.

Tailrace Area immediately downstream of a dam through which water is discharged from the powerhouse turbines.

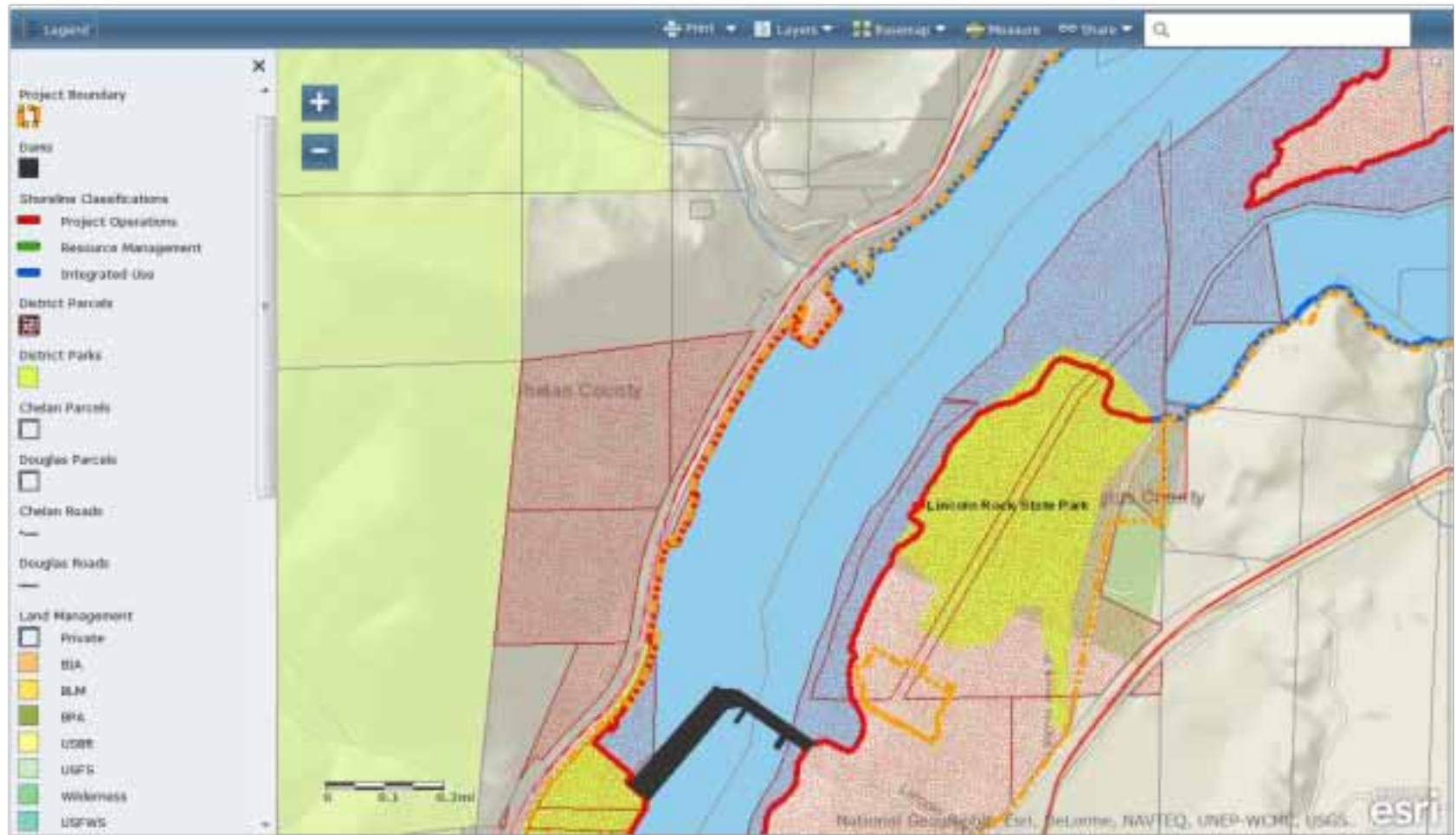
APPENDIX A: RESOURCE MAPS

A link to maps of both the Rocky Reach and Rock Island Reservoirs is available on Chelan PUD's Land Management Program website, <http://www.chelanpud.org/10962.html>. Clicking on the link you will see an aerial photo where you will be able to focus in on your property.

You will also be able to find your property on the map by entering your complete address in the search field (example 327 So Wenatchee Ave, Wenatchee, WA). The maps show the shoreline classifications, which are defined in Section 3.3.2 of this document.



EXAMPLE OF A PROPERTY VIEW



APPENDIX B: LAND USE ARTICLE 412 AND ARTICLE 5, ROCK ISLAND HYDROELECTRIC PROJECT LICENSE #943

LAND USE ARTICLE 412

Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancy, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible

and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been contained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one

million gallons per day from a project reservoir. Not later than January 31 or each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph © during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d) (7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must file a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state

approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires that licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historical Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary

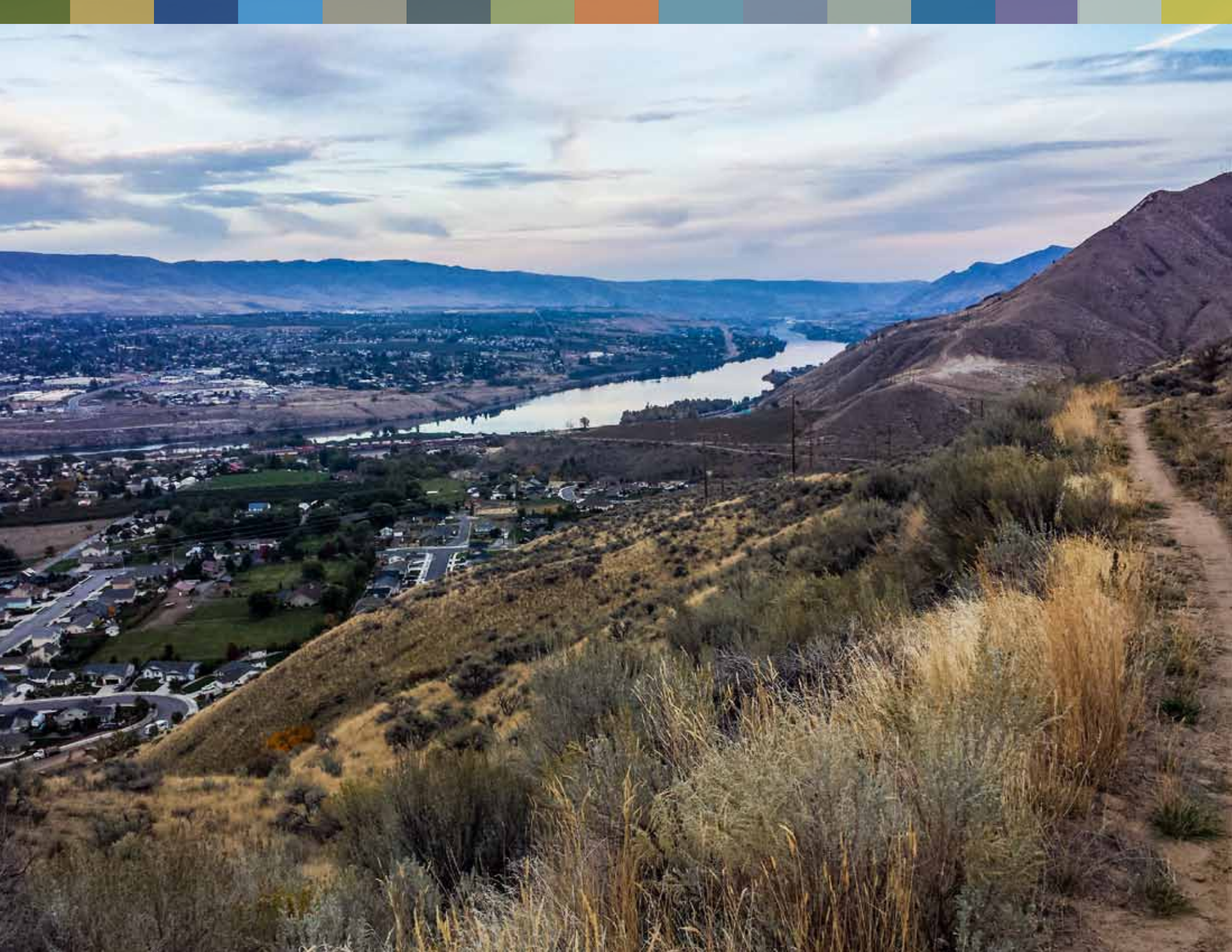
maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

ARTICLE 5

The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission.

The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made there under, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.



APPENDIX C: PUBLIC OUTREACH AND AGENCY CONSULTATION

July 9, 2013

Land Management Public Meeting — 30 people in attendance

An open house to provide the public an opportunity to pick up a printed copy of the draft Land Management Plans for the Rocky Reach and Rock Island reservoirs, view classification maps and provide comments to the Chelan PUD staff regarding the Plans.

June 20, 2013

Land Management Meeting — Communication and outreach meeting with Grant County PUD to share Chelan PUD's Land Management Plans, discuss Grant County's plan and talk about ways we can continue to work together. We also talked about lessons learned through the planning process and asked for comments.

May 16, 2013

Land Management Meeting — Communication and outreach meeting with the National Marine Fisheries Service (NOAA), U.S. Army Corp of Engineers and Washington State Department of Ecology to explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and a request for their comments.

May 9, 2013

Land Management Meeting — Communication and outreach meeting with U.S. Fish And Wildlife Service to explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and a request for their comments.

May 7, 2013

Land Management Meeting — Communication and outreach meeting with Washington State Department of Fish and Wildlife to explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and a request for their comments.

April 17, 2013

Land Management Meeting — Communication and outreach meeting with the Chelan County and City of East Wenatchee to explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and a request for their comments.

April 9, 2013

Land Management Meeting — Communication and outreach meeting with the City of Wenatchee, Entiat, and Rock Island, and Douglas County to explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and a request for their comments.

December 11, 2012

Land Management Public Meeting — 80 people in attendance

To explain Chelan PUD's role in land management and permitting, reasons for developing land management plans, and provide opportunity for the public to ask questions and provide input.

Comments received:

Comments were received Dec, 2012 through Aug, 2013 from the City of Entiat, US Fish and Wildlife Service, Chelan County, Douglas County, Washington Department of Fish and Wildlife Service and National Marine Fisheries Service (NOAA).

- Comments centered on clarification/correction to the process outlined in the plan, Chelan PUD's responsibilities under its FERC licenses, shoreline classifications and Chelan PUD's role under the JARPA process.
- All comments were reviewed and incorporated as appropriate and complete answers are outlined in the Frequently Asked Questions that follow.

FREQUENTLY ASKED QUESTIONS

What is a land management plan?

In general, land management plans (LMPs) acknowledge where important and/or protected natural and cultural resources exist, denote where facilities and uses occur, and identify the process for considering new facilities and uses. Specific to hydroelectric projects, LMPs apply to land within project boundaries, which are lands a licensee and the Federal Energy Regulatory Commission (FERC) have identified as necessary to protect natural/cultural resources, provide public access and operate the project. LMPs for the Rocky Reach and Rock Island hydro projects will ensure Chelan PUD manages lands within the project boundaries to meet FERC license requirements and project operational needs. The LMPs will help the public understand the application/review process for new facilities and uses and explain what Chelan PUD must consider in order to meet its FERC license and operational requirements. The intent of the plans is to provide the best balance for public and private access while protecting the river's natural resources.

What is Chelan PUD's responsibility for shoreline and land management under its FERC licenses?

Chelan PUD is responsible for reviewing uses of project lands and waters, in cooperation with local, federal and state agencies, to assure compatibility with Federal Energy Regulatory Commission (FERC) license terms and conditions and other relevant regulations. Chelan PUD's role in the permitting process is to ensure consistency with project purposes (e.g. dam operations and implementation of various natural resource and cultural plans required by the FERC License), including safety, environmental concerns and aesthetics. Chelan PUD also encourages consistency with local and county management plans and zoning. Chelan PUD administers a Shoreline Development

Tracking System as a means of ensuring that structures built within project lands and waters have minimal environmental or visual effects.

Did FERC require Land Management Plan development, and what is their role in this?

Federal Energy Regulatory Commission (FERC) did not require land management plans (LMPs) development as part of the Rocky Reach or Rock Island project licenses. Chelan PUD is developing the LMPs voluntarily to provide consistent, coordinated and long-term management and stewardship of the Rocky Reach and Rock Island reservoirs and to provide more comprehensive and clear guidance to the public when they want to use shoreline lands. As part of the relicensing process for the Rocky Reach Project, Chelan PUD submitted a Land Management Study report to the FERC on May 30, 2003. The new land management plans use that information, and Chelan PUD has updated and expanded that information to include current land use review processes and practices. FERC may choose to use the LMPs during review of certain land use applications that require FERC approval and/or to ensure Chelan PUD has sufficient shoreline and land use management processes in place to assure consistency with license requirements.

Who will use the Rocky Reach or Rock Island land management plans?

The land management plans (LMPs) can be used by the public, by permitting agencies, by other regulatory agencies, by Chelan PUD and by Federal Energy Regulatory Commission (FERC) as a guide to evaluating land use activities within the boundaries of the Rocky Reach and Rock Island hydro projects and to explain Chelan PUD's review process for all land use applications.

Does this change how Chelan PUD reviews applications?

Two important additions will streamline and improve the process. A shoreline and land use classification tool has been added to provide consistent review and approval of various shoreline development proposals. The tool has a set of maps showing various types and uses of the lands and shorelines within the project boundaries, including areas with greater protection requirements for environmental or habitat values, areas containing project works (e.g. dams, parks, hatcheries, etc.) and areas of existing development. In addition, the final land management plans (LMPs) will be publicly available with valuable links and contact information to help landowners make sure all activities within the project reservoirs will be consistent with Chelan PUD license requirements.

Will I be able to have a say during development of the land management plans?

Regular communication, public meetings and a website will provide opportunities for the public and agencies to comment on the plans as they are developed. All information will be provided on Chelan PUD's website <http://www.chelanpud.org/10960.html> and by mail, as requested.

How often will Chelan PUD update the plans?

Chelan PUD will review and, if necessary, update the land management plans (LMPs) every five years. Should local, state or federal regulations change, the LMPs will be updated (for example, new endangered species or new critical habitat that warrants protection). Changes in the LMPs will be highlighted on Chelan PUD's website <http://www.chelanpud.org/10960.html> and through other means such as newspaper notices and direct mailings to a stakeholder list.

Will the new land management plans affect recreational opportunities on the Rocky Reach and Rock Island reservoirs?

The land management plans (LMPs) proactively consider public recreation needs and access to the river, resource conservation and protection, and the interests of property owners adjacent to the shoreline. They will not change the recreational opportunities now provided by Chelan PUD on either the Rocky Reach or Rock Island reservoirs.

What is the project boundary?

The project boundary is an administrative marker to clearly delineate those lands necessary for operations and maintenance of the hydroelectric project and for other project purposes such as recreation, shoreline control or protection of environmental resources. The project boundary depends on the topography of the land and includes some upland property such as campgrounds, parks, hatcheries and wildlife lands.

Does Chelan PUD own all of the land within the project boundary?

No. For additional information on a specific shoreline area, contact the Real Estate Department at Chelan County PUD (509) 661-4240 or refer to the interactive map in the Land Management Plan.

What are shoreline classifications, and are they different from those used by Chelan County and Douglas County?

Chelan PUD is ultimately responsible for managing project shorelines consistent with project purposes and license obligations. The land management plans (LMPs) identify land use classifications along the Rocky Reach and Rock Island shorelines that reflect Chelan PUD's resource and operational obligations under its licenses for both the Rocky Reach and Rock Island hydroelectric projects. The classifications are specific to the lands within Chelan PUD's project boundaries. The

classifications are independent of any adjacent state or county land use designations or zoning; however, they are generally consistent with these. Chelan PUD uses this land use classification system to evaluate land use requests within the project boundaries. The system acknowledges where sensitive natural resources exist and where project facilities and uses occur. The system alerts Chelan PUD staff and the public to considerations and potential resource protection that might be needed if permits for construction activities are to be issued.

What are Chelan PUD's shoreline classifications?

The shoreline classifications provide the public with important information that can be used in making development, purchase and/or construction decisions on shoreline lands. Chelan PUD's three land use classifications that have been assigned to lands within the project boundary are explained below:

- **Project operations:** Denote areas within the project boundary occupied by project works such as dams, powerhouses and other structures, as well as any areas necessary to meet any requirements of the Federal Energy Regulatory Commission (FERC) license such as recreational and fish production facilities. Land use requests within these areas are generally prohibited.
- **Resource management:** Denotes areas within the project boundary with specific resource management, species protection and environmental or cultural purposes. Typically these areas require extensive environmental review, permitting and mitigation and activities may be prohibited.
- **Integrated use:** Denotes areas within the project boundary where shorelines have no known significant environmental or cultural resources or associated resource management goals that would preclude existing or future shoreline uses.

For more detailed information refer to Section 3.0 of the Rock Island and Rocky Reach Land Management Plans.

Will maps be available?

Maps showing the shoreline classification areas along the Rocky Reach and Rock Island reservoirs are available on Chelan PUD's website <http://www.chelanpud.org/10960.html>.

What is the JARPA process?

JARPA stands for Joint Aquatic Resource Permit Application. The JARPA consolidates federal, state and local permit forms into one convenient application. The process begins when a property owner or project proponent completes the JARPA, which includes describing the proposed project, its potential effects on regulated resources (e.g. wetlands, waterways, shorelines) and proposed construction methods. The JARPA is then submitted to local jurisdictional offices. The county then distributes the JARPA to the following agencies for review under specific regulations:

Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife (WDFW)

- Water Quality Certifications from the Washington Department of Ecology (DOE)
- Aquatic Resources Use Authorizations from the Washington Department of Natural Resources (DNR)
- Shoreline Management Act permits from participating city or county agencies
- The U.S. Army Corps of Engineers (Corps)

How does Chelan PUD work with Chelan County and Douglas County on permit applications?

Chelan PUD is part of the Joint Aquatic Resource Permit Application (JARPA) process. The respective county distributes the JARPA to Chelan PUD when construction or uses within the Rocky Reach or Rock Island project boundaries are proposed. Chelan PUD then reviews the proposed action within the project boundaries for consistency with Federal Energy Regulatory Commission (FERC) license requirements and resource management plans and provides input to the county. In some instances, Chelan PUD will consult with other permitting agencies. Depending on the nature, size and location of the proposed project, Chelan PUD may also be required to seek FERC approval of the proposed activity.

After all JARPA reviews are completed and permits received, including FERC approval if required, Chelan PUD will issue a “license/permit to occupy” project lands.

Where do I get information on the steps to take to build a dock or a shoreline structure?

Contacting either Chelan County or Douglas County is a good place to start. The links below should also be helpful resources.

Washington State Office of Regulatory Assistance

www.ora.wa.gov/resources/permitting.asp

US Army Corps of Engineers Permit Guidebook

www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook.aspx

Chelan County Current Planning

www.co.chelan.wa.us/bl/bl_current_planning.htm

Douglas County Information Brochures/Checklists

www.douglascountywa.net/departments/tls/permits/info.asp

Is it still possible to apply for a dock permit?

Yes. Contact either Chelan County or Douglas County, who will initiate the Joint Aquatic Resource Permit Application (JARPA) process. The JARPA consolidates application forms for federal, state and local permits.

Who sets the dock design criteria?

The U.S. Army Corps of Engineers has design criteria, based on guidance from the federal agencies who implement the Endangered Species Act (ESA). The following links should also be helpful:

Chelan County Dock Standards:

www.co.chelan.wa.us/bl/data/dockstds.pdf

Douglas County Regional Shoreline Master Program, includes design standards for docks/marinas in Chapter 5, Sections 3 and 10:

www.douglascountywa.net/departments/tls/growth/pdf/Chapter_1-9_Final_8-27-09.pdf

What if a dock owner has no proof that his/her dock was built before permits were required? Is there a grandfather clause?

This is a permitting question to discuss with either Chelan County or Douglas County. If the dock was installed on Chelan PUD-owned land, generally, Chelan PUD would issue a land-use permit (or license) as long as all other agency permits are in order.

Will the development of the land management plan jeopardize existing docks or shoreline structures?

Chelan PUD's land management plan (LMP) development and implementation will not change currently approved structures or uses.

Does Chelan PUD monitor the shoreline?

In partnership with Chelan County and Douglas County, Chelan PUD does monitor the shoreline along both Rocky Reach and Rock Island reservoirs approximately 20 times per year. If a violation is observed, it is reported to the appropriate county office and/or agency.

As a shoreline property owner, will this program limit my existing property rights?

No. Chelan PUD's rights are limited to those rights granted in the flowage easement associated with the Project Boundary.



APPENDIX D: CHELAN PUD CONTACTS

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LAND MANAGEMENT PROGRAM

*A guide to Chelan PUD's program for
managing the lands and shorelines within the
Rock Island Hydroelectric Project Boundary*

ROCK ISLAND HYDROELECTRIC PROJECT
FERC Project No. 943



Public Utility District No. 1 of Chelan County
Wenatchee, Washington

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