

**Shoreline Management Plan
for
Box Canyon Hydroelectric Project
FERC No. 2042**

**Submitted by
Public Utility District No. 1 of Pend Oreille County
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ACRONYMS AND ABBREVIATIONS

ac	acre
BIA	Bureau of Indian Affairs
CFR	Code of Federal Regulations
cfs	cubic feet per second
EA	Environmental Assessment
EPA	Environmental Protection Agency
EIS	Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
ft	feet
GIS	Geographic Information System
GMA	Growth Management Act
MW	megawatts
MWh	megawatt hours
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
RRMP	Recreation Resources Management Plan
SHPO	State Historic Preservation Officer
SMA	Shoreline Management Act
SMP	Shoreline Management Plan
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WDOE	Washington Department of Ecology

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1.0 INTRODUCTION

Public Utility No. 1 of Pend Oreille County (District) is licensed by the Federal Energy Regulatory Commission (FERC or Commission) to operate the Box Canyon Hydroelectric Project (Project), FERC No. 2042 on the Pend Oreille River in the northeastern corner of Washington State. The run-of-river hydro project includes approximately 110 miles of shoreline, most of which is owned privately. The District has a responsibility under its federal license for the project to ensure that activities on project shorelines do not negatively affect project operations or environmental resources within the project area, and to ensure that opportunities are provided for the public to safely access and use project lands and waters consistent with project operations.

This plan describes the Box Canyon Project and its operation; the shoreline management policies and regulations of the FERC and local jurisdictions; the environmental resources within the project area; and the District's authority, goals, plans, and general policies and procedures for shoreline management at the Project. This information is intended, 1) to inform the public of the District's authority with respect to the project area, and of District responsibilities and activities under its FERC license that affect the shorelines, and 2) to provide direction for individuals or organizations desiring to develop facilities that will occupy lands within the Project boundary. The District's Shoreline policies are intended to recognize and coordinate with the various plans and activities that will be conducted by the District over the course of the present 50-year license term, to protect project resources and provide public access and recreation opportunities.

This plan is organized into 13 sections. Section 1.0 is the Introduction. Sections 2.0 and 3.0 describe FERC policies that relate to shoreline management, public recreation, and public safety at hydroelectric projects. Section 4.0 describes the authority and goals for the District's management of project shorelines. Section 5.0 provides a description of the project, its facilities, and its operation. Sections 6.0 through 9.0 describe the plans and activities that the District will be implementing along project shorelines pursuant to the requirements of its FERC License provisions. Land ownership, and land uses are described in Section 10.0. Permitting authorities that apply to the Project area are described in Section 11.0, and the District's procedures for integrating its responsibilities into the shoreline permitting process are described in Section 12.0. Maps of the project and shoreline uses within the project area are provided Appendix A of the plan. Appendix B is the Future Land Uses Map from the Pend Oreille County Comprehensive Plan, and Appendix C is a zoning map that shows shoreline uses in the project area within Bonner County, Idaho.

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2.0 FERC SHORELINE MANAGEMENT POLICIES

FERC is required by the Federal Power Act (FPA) and its amendments, to ensure that its licensed projects protect both resources devoted to power generation and environmental resources. Since about 1980, FERC has included certain standard conditions pertaining to project lands in almost all project licenses. They spell out the types of uses licensees can permit on project lands and waters. Certain uses require no prior approval from FERC, only annual reporting. For other types of uses, a licensee must give FERC a 45-day notice, after which it can proceed if FERC has no objection. Finally, certain types of uses do require prior FERC notice and approval. These license provisions are described in further detail below in Section 4.2.

3.0 FERC POLICIES REGARDING PUBLIC RECREATION AND PUBLIC SAFETY

The FPA requires FERC to balance power and nonpower values at its licensed projects. Section 10(a) of the FPA mandates that FERC ensure all licensed projects be:

...best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes...

In addition, Section 4(e) of the FPA (as amended by the Electric Consumers' Protection Act of 1986 (ECPA), requires that when FERC issues a license it must give, "equal consideration to the purposes of energy conservation, the protection, mitigation of, damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality."

Standard articles regarding project access and safety are incorporated into virtually every FERC license. They ensure that licensees provide access to project lands and waters and maintain facilities for public recreation.

3.1 Policies Regarding Public Access

FERC requires that the public be provided reasonable access to the lands and waters of its licensed projects. The requirement for access to Project lands and waters is spelled out in two provisions that are included in nearly all project licensees. Standard License Article Form L-5, Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters and Lands of the United States (1975), which is incorporated into the Box Canyon Project license contains the following requirements:

The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps,

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beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing. (L-5, Article 17).

and

So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, that the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property. (L-5, Article 18).

3.2 Policies Regarding Public Safety

Section 10(c) of the FPA authorizes FERC to regulate projects for the health and safety of the public. FERC's Division of Dam Safety and Inspections (D2SI) is charged with that responsibility and the program is administered through five regional offices. FERC is concerned with the potential for injury or accident at its licensed projects. It is primarily concerned with the hazards created by project structures and operations. However, hazards created by natural conditions in project waters and at recreational areas that are operated or leased by licensees are equally important. Implementation of safety measures to minimize accidents that are not associated with project structures or operations is usually the responsibility of local entities and law enforcement agencies.

To address concerns for safety at projects, the D2SI requires annual inspections and reporting as a routine matter. Dam safety inspections are also required under federal regulations to be conducted every 5 years by an independent inspector (18 CFR 12.32). Specific safety measures for projects are determined by the Regional Engineer (Regional Director) on a case-by-case basis. D2SI staff in the Portland, Oregon Regional office have responsibility for the Box Canyon Project. Safety measures required at the Project are described in Section 6.0 below.

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4.0 SHORELINE MANAGEMENT GOALS AND REQUIREMENTS AT THE BOX CANYON PROJECT

The primary purpose of this Shoreline Management Plan is to comply with the District's obligations under its FERC license for the Box Canyon Project. As a licensee, the District is responsible for ensuring an appropriate balance among various interests in the use of lands and water at the Project. This plan will provide information to the public about activities the District will be conducting along the shorelines of the Project over the course of the current license term. It will provide notice of the District's approval authority to those seeking to obtain permits for shoreline development, and will describe how the District will interact with the primary permitting authorities in granting permission for shoreline development and uses that occur either on District lands, or on lands around the reservoir for which the District maintains flowage rights.

4.1 Goals and Objectives

The District's overall goal for this plan is to meet its responsibilities and obligations under its FERC license to protect both the project's generating capacity and the environmental resources within the Project boundary. The District also intends with this plan to define how it will coordinate with the primary permitting agencies that have authority over land use around the Project area, to ensure that uses on lands adjacent to the shorelines are harmonized with project purposes.

The District's shoreline management objectives are to:

- Protect the Project's facilities and generation value
- Manage District-owned lands to protect the public
- Ensure reasonable public access to the project lands and waters
- Ensure that diverse recreational opportunities are encouraged throughout the project in appropriate areas
- Protect the scenic and environmental values of the Project area
- Prevent erosion
- Preserve wildlife and Threatened, Endangered and Sensitive species
- Preserve cultural and Heritage resources
- Support and coordinate with County, State, Tribal and federal agencies to permit beneficial public and private uses of shorelines within the Project area
- Provide information to the public regarding permitting regimes affecting development within the Project area

The District intends through the SMP to describe its plans for preserving project generation and efficient safe operation, improving the quality of shoreline natural resources; creating attractive and accessible shoreline settings for access by the general public and adjacent landowners; and being consistent with other jurisdictional policies and plans.

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4.2 FERC License Requirements

The District's operation of the Project is governed by its license issued by the FERC on July 11, 2005 and by the Commission's regulations implementing the FPA and associated acts of Congress. The District's responsibilities include power generation, public recreation, public safety, and protection of environmental, cultural and historical resources, and public lands. The entire FERC license order (112 FERC 61,055) for the project may be viewed at the District's office in Newport, Washington or may be obtained on the District's website at:

<http://www.popud.com/license.htm> or on the FERC website at:

<http://www.ferc.gov/docs-filing/elibrary.asp>

4.2.1 Article 409

In the FERC license for the Box Canyon Project, License Article 409 required the District to file, within one year of license issuance, a management plan for the use of the shoreline within the project boundary. The plan, at a minimum, must include:

- (1) A detailed description of proposed shoreline use and development requirements, guidelines, or permitting programs;
- (2) A description of the licensee's proposed cooperation or coordination with jurisdictional entities in its management of the shoreline;
- (3) Appropriate maps showing proposed shoreline development and uses; and
- (4) Provisions to provide comprehensive land use maps to Pend Oreille County and other interested entities.

4.2.2 Article 416

License Article 416 includes standard FERC provisions regarding the types of uses that Project licensees can permit and the circumstances under which they can do so. This license article describes the types of uses the District may allow without prior FERC approval, including ones that must be reported annually; and the types of interests in Project lands that can be conveyed by the District only after FERC has been notified and has failed to object within 45 days. Interests not described in these provisions of the license may not be conveyed by the District without FERC's prior approval. These various uses are described below.

4.2.2.1 Uses Not Requiring Prior FERC Approval

Under the Project's FERC license, and according to FERC policy, the District is authorized to grant permission for certain types of uses of project lands and waters without prior Commission approval. However, the District may approve such uses, "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." (Article 416).

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Specific types of uses the District can permit without prior approval from FERC include the following:

- (1) landscape plantings;
- (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings;
- (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and
- (4) food plots and other wildlife enhancement.

Before granting permission for construction of bulkheads or retaining walls, the District must:

- (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.

The District is charged with monitoring any use of project lands it permits, to ensure that permitted facilities are maintained in good repair and comply with applicable state and local health and safety requirements. If the user violates any condition imposed by the District or any covenant of a conveyance, the District may revoke the permission and remove any nonconforming structures. (Article 416(a)).

The District may also convey easements or rights-of-way across, or leases of project lands for the following purposes, but must report annually to FERC any such conveyances. (Article 416(c).)

- (1) Replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;
- (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.

In addition, the District must consult with federal and state fish and wildlife and recreation authorities, and the State Historic Preservation Officer, if applicable. The District must also determine that the proposed use is not inconsistent with recreation resources at the project. (Article 416 (e).)

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4.2.2.2 Uses Requiring 45-day Prior Notice to FERC

The District must notify FERC at least 60 days before conveying title to project lands, easements, leases or rights-of-way for the following types of uses. The Director of Energy Projects then has 45 days within which to order the District to file an application for prior approval. If no such order is issued, the District may convey the interest without further consultation with FERC. (Article 416 (d).) Uses in this category include:

- (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 (measured over project waters) 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 project waters at normal 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.

4.2.2.3 Uses Requiring Prior FERC Approval

The District is required to obtain prior FERC approval before agreeing to allow development of any use not specifically allowed. This requirement includes commercial docks and other structures, and residential docks with more than 10 slips within the Project.

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5.0 PROJECT DESCRIPTION

5.1 Project Facilities

The Box Canyon Hydroelectric Project is located on the Pend Oreille River in the northeast corner of the State of Washington near the town of Ione. The Box Canyon Dam is located at river mile (RM) 34.4 from the Pend Oreille River's confluence with the Columbia River. The site is 13 miles from the Canadian border, 14 miles from the Idaho border, and 90 miles north of the City of Spokane. The official project boundary, as licensed by the Federal Energy Regulatory Commission (FERC), encompasses an area along the Pend Oreille River between the main spillway at Box Canyon Dam (RM 34.4) and the base of Albeni Falls Dam, located just over the State of Idaho border near Oldtown, Idaho (RM 90.1), a total length of about 55.7 miles.

The Project area includes approximately 493 acres of lands of the Kalispel Indian Reservation, including lands of individual Indian allottees. The boundary of the Project consists of a surveyed line, with metes and bounds, as shown on the Exhibit G maps, between Box Canyon and the Town of Ruby. Upstream of Ruby, the boundary is generally defined by a contour line that corresponds to a water surface elevation of 2041.0 as measured at the Cusick gage. This is the upper elevation limit of impact caused by the Project and corresponds to water levels when river flows are 90,000 cfs (approximate annual flood), when all the gates are removed at Box Canyon Dam and the hydroelectric plant is shutdown due to lack of hydraulic head. Flows greater than 90,000 cfs may cause river levels higher than El. 2041.0, but any associated impacts are not related to Project operation and are naturally occurring events beyond the Project's control. The Project encompasses a total of approximately 3,377 acres, not counting water surface, which covers another approximated 8,850 acres at a river flow of 30,000 cfs and at elevation 2030.6 at Box Canyon Dam. The main features that make up the Box Canyon Project include the dam and spillway, diversion tunnel, forebay channel, auxiliary spillway, powerhouse, and switchyard.

5.1.1 Box Canyon Dam and Associated Facilities

The main spillway is a reinforced concrete structure built between a narrow section of the canyon's rock walls. The spillway consists of four bays each 40-feet-wide with a crest at El. 1970.0. The bays are separated by 90-foot-high, reinforced concrete piers. The piers, equipped with slots to guide wheeled gates of welded steel plate construction, support a concrete operating deck above the spillway at El. 2060.0. The 190-foot-long operating deck holds a 100-ton capacity gantry crane mounted on rails. The gantry crane maneuvers the gate leaves in the spillway bays. There are three vertical-lift gate leaves, 40-feet-wide by 20 feet 8 inches high per spillway bay, except in the west bay, which has two 10-foot 4-inch-high gates at the top for additional spill control. These gates stack one on top of the other to form the dam. When in place, the top of the gates is 62 feet above the spillway crest at El. 2032.0. The spillway is designed to pass a flood flow of 350,000 cubic feet per second (cfs) with the gates removed. The entrance of the concrete-lined, 35-foot-diameter, horseshoe-shaped diversion tunnel is located on the left river bank about 400 feet upstream from the spillway. The tunnel is aligned with a slight curvature through the rock in the canyon's wall and extends 217 feet downstream to the forebay channel. The tunnel was used to divert water in the river during spillway construction and is still used to provide flow to the forebay channel for project power generation. The forebay

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channel conveys water from the upstream side of the spillway to the powerhouse intake. The auxiliary spillway is a reinforced concrete structure located on the right bank of the forebay channel, 100 feet upstream from the powerhouse. The spillway was used for water diversion during construction and was intended to augment the capacity of the main spillway during flooding, and serve to flush trash and ice from the forebay channel.

The powerhouse is a multilevel, semi-outdoor structure of reinforced concrete construction, with an integral intake and contains four turbine/generator units. It is located on the left (west) bank of the river approximately 550 feet downstream from the spillway. The generators produce 60 megawatts (MW) at rated head and flow. Turbine rated flow is 27,400 cfs. The turbines discharge directly back into the Pend Oreille River. The Box Canyon Project switchyard is located 130 feet southwest of the powerhouse. It contains the four main transformers (one for each generator), circuit breakers and transmission line connections. The switchyard has a direct connection to BPA's Metaline Falls to Spokane 115 kV transmission line, a local distribution feeder at 115/12.47 kV and a new 115 kV transmission line between Box Canyon and Newport completed in 1998. These transmission lines are not considered part of the licensed hydroelectric project.

The Box Canyon Project Reservoir (BCR) is the Pend Oreille River between the Box Canyon Dam spillway (RM 34.4) and Albeni Falls Dam (RM 90.1). The reservoir is 55.7-miles-long measured along the centerline of the river. The deepest and narrowest locations in the reservoir occur in the natural constriction that is Box Canyon. The reservoir is 110-feet-deep at RM 34.68, just 1,400 feet upstream from the spillway. Another 870 feet further upstream (RM 34.84), the reservoir is approximately 125-feet-wide, the narrowest spot in the reservoir. RM 63.60 is the widest location at 2,540-feet-wide.

5.1.2 Calispell Creek Pumping Plant

Two pump stations at the mouth of Calispell Creek near the Town of Cusick provide flood control for the Calispell Creek drainage. They were originally built by a local Diking District in 1911 to prevent the natural annual flooding of land in that drainage. Because these pumps sometimes allow the Pend Oreille River level to be held at higher than natural levels without flooding lands along Calispell Creek, increased energy production results at the Box Canyon Project. Although these pumps were not constructed originally as part of the Box Canyon Hydroelectric Project and are more than 30 miles south of Box Canyon Dam, the fact that they contribute to power generation at the project, according to FERC regulations they are considered to be "project works." They are, therefore, included within the project boundary and are considered project related structures.

Two pump station structures comprise the Calispell Creek Pumping Plant. The older, smaller structure called Pump Station No. 1 consists of two 100-hp pumps in a concrete enclosure. It is located on the right bank of Calispell Creek adjacent to the railroad embankment, and pumps up to a maximum of approximately 120 cfs through a gated culvert that passes through the railroad embankment and into the mouth of Calispell Creek a short distance before it joins the Pend Oreille River. The pumps have trash screens on their intake side to prevent grass, floating wood and other debris from entering the pumps. Pump Station No. 2 is located on the left bank of

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Calispell Creek, also adjacent to the railroad embankment. It consists of four 250-hp pumps with a combined capacity of a maximum of 400 cfs at 16 feet of head. Pumps can be set to operate on automatic level control, and can run singly or in combination. They also are fitted with a trash rack on the inlet side of the pumps to prevent entry of grass and floating debris into the pumps. The pumps discharge water from Calispell Creek into two side-by-side, gated concrete box culverts, each 7ft 8 inches tall by 5ft 10inches wide, that pass through the railroad embankment and discharge into mouth of Calispell Creek near where it joins the Pend Oreille River. The culverts and original Pump Station No. 1 were constructed in 1909. The existing Pump Station No. 2 was constructed in 1976. Pump Station No. 2 was constructed on Kalispel Indian Reservation land.

5.1.3 Project Recreation Facilities

The District owns and operates the Box Canyon Dam Visitor Center and Box Canyon Viewpoint, and Campbell Park. In addition, there are numerous recreation facilities located along the Pend Oreille River that are owned and operated by other entities. The recreation facilities within the Project area are further described in Section 8 below.

5.2 Project Operation

The Box Canyon Project is a run-of-river project. There is no active or useable storage in the reservoir, and the river behaves in the much the same way as before the Project was built. Head water level at the dam is held constant, and no load following or peaking is done with the plant. When the river flow is 30,000 cfs and the head pond is held at elevation 2031.25 at the dam, there are about 69,800 more acre feet of water in the reservoir than there would be if there were no dam and the river was flowing naturally at 30,000 cfs. If there were no inflow to the reservoir and the plant operated at full flow of 27,400 cfs, all this water would be used up in about 31 hours. Thus, this storage volume is really very small, and peaking operations at the plant are impractical because levels would fluctuate very quickly if any peaking were attempted.

The 2005 FERC license for the Project authorized the District to upgrade all four of the turbine generators over a period of seven years. By the year 2013, the upgrades will be completed and the capacity of the Project will be increased to approximately 90 MW. Upgrading with advanced turbine technology will allow the Project to pass more water so that less dissolved gas is produced; more electric power can be generated; and fewer fish will be injured or killed if entrained. The project will continue to operate as it always has, in run-of-river mode, but under the new license it is also subject to a drawdown restriction of three inches per hour at the dam. This will mean that the Project will have less flexibility in responding to rapid changes in flow from upstream projects. However, a Communication and Coordination Agreement with the U.S. Army Corps of Engineers (USACE), which operates the Albeni Falls Dam, immediately upstream of the Project, should ensure that the District receives advance notice to allow the most effective possible response to such changes in flows from upstream. The District will be installing temporary upstream fish passage facilities by about the end of 2007, which will operate until it is determined whether there is a need for more permanent facilities.

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Along with its operation of Box Canyon Dam and the pumping plant at Calispell Creek, the District's operation of the project includes various activities under plans developed pursuant to its license issued in July 2005. They include a Comprehensive Wildlife Management Plan, a Recreation Resource Management Plan, a Cultural and Historic Resources Management Plan, an Integrated Weed Management Plan, a Rare Plant/Sensitive Species Management Plan, and an Erosion Control and Monitoring Plan. These are further described below in Sections 7.0 through 9.0. All of these plans require the District to pursue activities to protect resources along the Project shorelines over the next 50 years. This plan provides information that will inform potential shoreline development proponents of the activities that are ongoing within the Project boundary which may affect their planning and permitting efforts.

6.0 SHORELINE MANAGEMENT FOR PUBLIC SAFETY

6.1 Project Emergency Action Plan

The District maintains a comprehensive public safety program to ensure the structural adequacy of Box Canyon Dam and the safety of members of the public who may use the Project area. Box Canyon Dam is inspected annually by District staff and representatives of the FERC. Independent consultants thoroughly examine the spillway and water retaining structures once every five years and publish a comprehensive Safety Inspection Report. The District maintains a current Emergency Action Plan (EAP) for the extremely remote possibility that a structural emergency would arise at the project, and safety measures are conducted as required by FERC. This plan is designed to minimize danger to people and property downstream of Box Canyon Dam. The EAP, developed in accordance with FERC regulations, provides guidelines for notification and early warning of local, state and federal agencies, emergency services staff, and the public in the event of an actual or potential failure. The Box Canyon Dam is different from many other projects in that as flows increase, the gates of the dam are removed, until at high flows the river flows freely, almost as if the dam were not in place. Recently, the project dam was reclassified by FERC as a "Low Hazard" facility due to the very low risk of downstream damage in the event of a dam failure.

Box Canyon Dam is staffed by station operators 24 hours per day. The operators continually monitor operation of the project. River flows and water elevations above and below the dam are continuously monitored in the power plant control room. A communication link is available 24 hours per day with District management staff in Newport, Washington and with operating staff at the USACE Albeni Falls Dam upstream and Seattle City Light's Boundary Dam (FERC No. 2144) downstream.

6.2 Measures for Public Safety at the Project

The District has installed a variety of public safety devices in the project area. Improved warning signs and a boater safety net were installed in 1983 at the upstream end of Box Canyon, approximately one mile upstream of the spillway. The safety net is operational under all weather conditions except when ice is forming on the river surface. It provides a secure tie-off point for any boats that may be adrift and grab ropes for swimmers who may be in the water. Warning

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signs on each side of the river state, "DANGER - BOX CANYON DAM SPILLWAY 1 MILE DOWNSTREAM - NO BOATS BEYOND THIS POINT." Similar signs are located at three locations upstream of the safety net. Warning signs are also located downstream of the spillway to warn boaters and river users of sudden changes in flow from the spillway or power plant. Fencing is installed around the power plant, switchyard, and spillway to limit public access to potentially dangerous areas of the project. More detailed descriptions of the safety measures instituted by the District are provided in the District's Public Safety Program, which is regularly updated. Copies are maintained at the Dam and at the District office in Newport, Washington.

7.0 SHORELINE MANAGEMENT FOR ENVIRONMENTAL RESOURCES

The new license for the Box Canyon Project requires the District to develop many different plans to protect environmental resources within the Project Area. Several detailed plans govern the District's management of terrestrial and aquatic resources within the Box Canyon Project Area. They are: the Comprehensive Wildlife Management Plan; the Wildlife Habitat Monitoring and Management Plans for the Everett Island Wildlife Area and the Tacoma Creek Wildlife Area; the Integrated Weed Management Plan; and the Rare Plant/Sensitive Species Management Plan; the Trout Assessment and Restoration Plan; the TDG Abatement Plan and Water Quality Monitoring Plan and the Shoreline Erosion Monitoring Plan.

7.1 Terrestrial Resources

7.1.1 Comprehensive Wildlife Management Plan

Article 407 of the new license requires the District to develop a Comprehensive Wildlife Management Plan for the Box Canyon Project, which includes planning in consultation with state and federal resource and land management agencies and the Kalispel Tribe. It contains provisions for enhancement, monitoring and maintenance of wildlife species and habitat within the project area. Measures that will be implemented during the current license term along the project shorelines include:

Cottonwood Enhancement: measures to enhance cottonwood habitat inside and outside the wildlife management areas, including: (1) provisions to investigate the causes of impaired cottonwood recruitment; (2) identification of areas and a schedule for cottonwood planting within two years of license issuance; and (3) funds administered through the Pend Oreille Conservation District to provide technical assistance and planting materials to other private landowners around the reservoir who may wish to improve cottonwood habitat on their property.

Grazing Management: provisions to eliminate livestock grazing throughout the term of the license on licensee-owned lands within the project boundary.

Wetland Creation and Enhancement in Wildlife Management Areas: (1) detailed design drawings of the wetland creation and enhancement sites, including topographic information; (2) hydrologic information and design drawings showing the water control features; (3) provisions for drawdowns to impair bullfrog production in the ponds; (4) proposed vegetation

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plantings in plan view and cross-section; and (5) provisions to monitor other existing wetland habitats in the Everett and Tacoma Creek Wildlife Management Areas, with the variables described in the draft wildlife management plans.

Waterfowl Management: (1) provisions for habitat protection and enhancement on lands owned by the licensee within the project boundary; (2) provisions to support the efforts of local conservation groups, school groups, or landowners to improve waterfowl nesting habitat; (3) measures to construct and install artificial nest structures within the wildlife management areas.

Grizzly Bear Awareness: (1) measures to improve grizzly bear awareness; and (2) provisions for posting signs and/or providing educational pamphlets at each of its recreation facilities to inform visitors of steps they can take to prevent conflicts with grizzly bears.

Bald Eagle Management: (1) developing individual nest site management plans for established nest stands, preferred perches, winter roosts, and foraging areas for bald eagle pairs that nest on lands within the project boundary and for pairs that nest nearby, but that rely on the Box Canyon reservoir as a foraging areas; (2) two years of survey at each known nest site within the project boundary to provide data needed to develop nest site management plans; (4) annual surveys during the breeding season to monitor both nesting and nest productivity; annual surveys in winter to document winter use; and surveys to investigate establishment of new nests and track changes in bald eagle populations and productivity; (6) providing information about bald eagle protection (e.g., signage and brochures) at licensee-operated recreational sites; and (9) silvicultural treatments to improve potential bald eagle nesting habitat along the reservoir between river mile 47 and river mile 90.

Fish-eating Bird Monitoring: (1) monitoring of population trends of osprey and great blue heron and double-crested cormorants within the project area; (2) annual nesting and population surveys for osprey and great blue heron and cormorants.

7.1.2 Wildlife Management Areas

Two Wildlife Management Areas (WMAs) were added to the project area in 2005 with the issuance of the new license. These WMAs are located at Everett Island and Tacoma Creek. Plans for management of these areas previously filed with FERC have been updated and included as components of the Comprehensive Wildlife Management Plan. The management plans for the WMAs describe objectives to meet their goals of protecting, enhancing and various wildlife habitats on the properties.

The Everett Island WMA is located approximately 11 miles north of Newport, Washington and one mile south of Usk, Washington. It is situated off the east bank of the Pend Oreille River within the Skookum Creek Drainage. The majority of the property consists of the northern half of Everett Island. A portion of the property extends inland approximately 2,640 feet to the east, and exists outside of the floodplain. The Everett Island WMA Plan includes measures to restore, protect and enhance 334 acres of severely altered farmland/pasture to native-like riparian and wet meadow habitat by the end of 2011. Measures have already been implemented there, which

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include development of a conservation easement restriction on the property deed, removal of cattle and rebuilding of fences, cultural resource assessment of the property, mapping of area features (topography, wetlands, culverts, dikes, etc.), clean-up of hazardous waste and trash, and non-native vegetation control. Additional activities that will occur include enhancement of riparian habitat along Everett Island and shoreline of Pend Oreille River with cottonwood plantings and monitoring, reduction of sedimentation and erosion on banks, revegetation of eroding sites, and/or installation of silt fences or other erosion control devices, evaluation and possible elimination of existing buildings, annual monitoring of wildlife and vegetation. Additional plans for the WMA that are included in the Comprehensive Plan include measures for creating seasonal pond areas for native amphibian habitat.

The Tacoma Creek WMA is located approximately 5 miles north of the Town of Usk and is bordered by Highway 20 on the east and the Pend Oreille River on the west. Tacoma Creek flows through the property in a northerly direction. Adjacent properties are in federal ownership and are managed for wildlife habitat. In 2001, when it was purchased, it consisted of 257 acres of degraded pastures and converted palustrine emergent wetlands. Significant portions of the property are classified as PEM1 wetlands (NWI 2001), and the entire parcel is within the 100-year flood plain. The property included 174 acres of grassland, 68 acres of wetland, and 15 acres of mixed forest. The goals for the Tacoma Creek WMA are to protect, enhance and manage wet meadow, riparian, and forest eco-system habitats on the property. Prior to purchase, the property contained several manmade dwellings and outbuildings along with an assortment of vehicles. Most of the property acreage had been cross fenced into several sections and some areas had been cleared of vegetation for unknown reasons. Following the direction of the wildlife management objectives and tasks for Tacoma Creek WMA, these outbuildings were dismantled, burned down or removed, and the site cleaned up of all manmade physical features and debris, with the exception of perimeter fencing. The cleared footprint was also reseeded to accelerate revegetation of the bare soil following decommissioning of the Bryant home and outbuildings. Further enhancement of wildlife habitat will occur during the license term under the Comprehensive Wildlife Management Plan

7.1.3 Integrated Weed Management Plan

During the current license term, the District will identify and implement methods for prevention and control of noxious weeds on National Forest System (NFS) lands and District lands along the Project shorelines affected by Project-related activities and operations. Methods will include education; minimizing transportation of weed seed; incorporation of seed prevention measures into project planning and design; minimizing ground disturbance and exposure of mineral soil; and revegetation of disturbed areas. There will be annual surveys of NFS lands adjacent to BCR for the identification of new invader species within the Project area, and control measures for these occurrences will be implemented.

7.1.4 Rare Plant/Sensitive Species Management Plan

The District will implement measures to protect state, federal sensitive and rare plants, growing on District-owned or managed lands within the project boundary and will address the potential

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effects of Licensee activities on rare and sensitive plants on Forest Service lands within the project. Surveys and monitoring activities may take place along the shorelines under this plan.

7.2 Aquatic Resources

7.2.1 Trout Habitat Assessment and Restoration

The new license for the Project requires the District provide for trout habitat assessment and restoration in several tributaries to Box Canyon Reservoir (DOI Condition 1.6). The District will survey trout populations in Calispell, Indian, Mill, Cedar, Ruby, Tacoma, LeClerc, Cee Cee Ah, Cusick, Trimble, Gardiner, Middle, Lost, Maitlen, Renshaw, Big Muddy, Little Muddy, Exposure, Mickey, Davis, Skookum, Bracket, Kent, and McCloud creeks. Then it will implement tributary habitat restoration, enhancement and/or supplementation measures in the creeks, such as instream and riparian restoration, conservation and maintenance, removal of impassable barriers, purchase of land or conservation easements, and exotic species control. Native trout populations will be supplemented and surveys will be repeated periodically until target population goals are met. Details of the measures and status of restoration efforts will be available in the Trout Assessment and Restoration Plan and the Implementation and Monitoring Plan annual reports. Since much of these tributaries lie outside the Project boundary, generally only the mouths of affected creeks where they join the reservoir will be subject to this Shoreline Management Plan.

7.2.2 Water Quality Improvement Measures and Monitoring

During the first ten years of the current license term, the District will be making modifications to the project facilities at Box Canyon Dam to reduce total dissolved gas (TDG) production. All four turbines will be upgraded and, if TDG standards still are not met, a spill bypass will be constructed at the dam. Water quality monitoring for TDG, temperature, dissolved oxygen (DO) and pH will be conducted at the dam.

Calispell Creek Pumping Plant is located behind the railroad dike near where the creek joins the Pend Oreille River. Water quality monitoring for temperature, turbidity, DO, fecal coliform, e. coli, and water elevation, will be conducted upstream of the pumping plant in two locations, and immediately downstream of the plant until at least 2011.

Water quality measures are intended to improve habitat for fish and other aquatic species in the Project area. The District will be required to obtain federal and state shoreline permits for installation of monitoring equipment in the water along the shorelines of the Project, but ongoing monitoring activities should have little or no impact on these areas.

7.3 Shoreline Erosion Monitoring and Stabilization

The District will be conducting monitoring of shoreline erosion throughout the Box Canyon reservoir to determine the location and rate at which erosion is occurring at various points and, to the extent it is possible, to determine the degree to which project operations contribute to such erosion. A minimum of 29 locations will be monitored twice a year for the term of the license,

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including a number of monitoring stations on the Kalispel Indian Reservation and National Forest system lands within the Project boundary. In addition to the regular, twice-yearly monitoring, monitoring will also be performed after floods with a 20-year or greater recurrence interval and after occasions when the project has experienced drawdown rates in excess of three inches per hour for more than 12 hours.

The District will also be implementing measures for erosion control, protection, and restoration of areas around the project reservoir. Details of the measures that will be carried out can be found in the Erosion Monitoring Plan. They will include an erosion education program to educate the public on erosion prevention, control, and remediation.

8.0 SHORELINE MANAGEMENT FOR PUBLIC ACCESS AND RECREATION

The majority of lands along the Box Canyon Reservoir are privately owned (approximately 75 percent). Nearly all of the remaining lands are either within Kalispel Tribal or Forest Service reserved lands, or in state or local ownership. Therefore, the District does not have the ability to provide a buffer zone around the Project to protect public access and recreational and aesthetic values. Within the Project boundary, the District has flowage easements that provide only the level of authorization needed to operate the Project. On lands owned by the District, public access is promoted, but the amount of land is small (less than 3 percent of total lands within Project boundary). The District, therefore, has joined with other jurisdictions along the reservoir, including the towns of Ione, Cusick, and Oldtown, Pend Oreille County, and the USFS to promote public access along the Project reservoir. The District will continue to promote public access on District lands and will continue to work with other jurisdictions along the reservoir to promote public access in the Project area. The District is proposing several recreation improvement and enhancement projects that will promote and protect public access in the Project area. These are described in detail in the Project's Recreation Resources Management Plan (RRMP).

The Box Canyon Project is located in a mostly rural region. Large areas of forest and mountains offer many opportunities for outdoor recreation. The Pend Oreille River is a popular site for water-related recreational activities, including, motor and non-motor boating, water-skiing, jetskiing, inner tubing, fishing, and swimming. Fishing for bass, trout, perch, crappie, whitefish and bullhead are popular activities on the Pend Oreille River. Along the shores of the river at developed sites, and at undeveloped shores and islands, camping, picnicking, swimming, fishing, sightseeing and wildlife viewing, relaxing, sunbathing, and waterfowl and big-game hunting occur. Private year-round residences and vacation homes and cabins are located on and near the river. Commercial establishments adjacent to the river offer recreation-related services. Recreation and tourism are traditionally very important parts of the local economy and have been increasing in recent years.

Recreation sites in the Project area are owned, maintained and/or designated by the District, state, county, towns, federal government (USFS), Kalispel Tribe, and private interests. The following describes the recreation sites within the Project area, which includes the Pend Oreille River and adjacent lands from just downstream of Box Canyon Dam upstream to Albeni Falls Dam.

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8.1 District Owned and Funded Recreation Facilities

The District owns and operates Campbell Park and boat launch, Box Canyon Dam Visitor Center and Box Canyon Viewpoint. These District-owned sites are open year round and provide facilities for camping, picnicking, swimming, sightseeing, boating and fishing. The Visitor Center provides photographs and historical displays of the Box Canyon Project. Tours of the powerhouse are also scheduled at the Visitor Center. Campbell Park and the Visitor Center are located just below Box Canyon Dam on the west side of the river. The Viewpoint is located on a rock outcrop on the west side of the river just upstream of the dam. The Viewpoint site has a chain link fence that separates the public from the cliff above the river and spillway. This site provides a picnic table and spectacular views of Box Canyon, the dam and Project facilities, and the railroad trestle that traverses the river just upstream of Box Canyon Dam.

In addition to the facilities owned and operated by the District, the District has also contributed funds for recreation enhancements throughout Pend Oreille County. They include the new boat launch and dock at Ione City Park, which began operation in 1996; the Cusick boat launch, which began operation in 1997; and ongoing funding for improvements at the Oldtown Boat Launch. In addition, as conditions of the 1999 FERC-approved Settlement Agreement for the amendment of the previous license, the District contributed \$100,000 to the Kalispel Tribe for upgrading their recreational facilities at Manresa Grotto, the Pow Wow Grounds and the Kalispel Boat Launch, and \$80,000 for studies leading to an interpretive center on the Reservation (FERC 1999). Under that same agreement, the District provided nearly \$1 million to the U.S. Forest Service for major improvements to Edgewater, Panhandle and Pioneer Park Campgrounds, all of which have some facilities that abut the shoreline and lie partially within the project boundary.

8.2 Other Public Recreation in the Project Area

A variety of local community events focused on the Pend Oreille River are held during late spring and summer, including Down River Days, the Poker Paddle and bass-fishing tournaments. Down River Days is held in Ione in late July. It originated in 1952 as a celebration of the completion of Box Canyon Dam and includes hydro-plane races, a fishing derby, entertainment, and a crafts fair. The Poker Paddle is a canoeing event that begins in Usk. This event is held in mid-July. Two bass-fishing tournaments are held on the reservoir in May and June.

8.2.1 State Owned Recreation Facilities

Washington Department of Fish and Wildlife (WDFW) manages the recreation site off the old Ruby Ferry Road on the west side of the river. The site has a concrete boat launch and toilets. A WDFW "Public Fishing" sign adjacent to Highway 20 directs people to this site. WDFW manages the Little Pend Oreille Wildlife Recreation Area located on the east side of the Box Canyon Reservoir, approximately 5 miles north of the Kalispel Indian Reservation boundary along LeClerc Road. This area is undeveloped and is generally used for hunting mule deer, black bear, and grouse. Washington Department of Transportation maintains a roadside park off Highway 20, south of Blue Slide Resort. This site has a sign explaining the history of the

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explorer David Thompson and has a picnic table. This site does not provide access to the Pend Oreille River.

8.2.2 Pend Oreille County Recreational Facilities

Pend Oreille County requires that subdivisions of five lots or more dedicate land for public access to water bodies. Numerous parcels of land along the Pend Oreille River are designated for public access. The majority of these parcels are vacant, undeveloped and are difficult to locate, since there are no signs showing their location. The County public-access site located approximately four miles south of Lone on the east side of the river off of LeClerc Road, has picnic tables and barbecues. Several of the subdivision public access lots have public boat launches. These include Lazy River Farmettes, Davis Estates, Ponderay Shores, Gregg's Addition, and Sandy Shores Estates. Some of the subdivisions along the Project reservoir, including Riveredge Estates, Holiday Shores, Riverbend Estates, and Greenwater Estates, have boat launches that are intended for the subdivision community's use only.

8.2.3 Municipal Recreational Facilities

Lone City Park is located on the west side of the Pend Oreille River, in the town of Lone. The park has picnic areas, restrooms, and water, a covered food pavilion, and children's play equipment in grassy areas, with large trees throughout. A new concrete public boat launch and dock were constructed with funding from the District in 1996 at the southern end of the park. Another new dock is located on the river.

The town of Cusick constructed a boat launch facility in 1997 also with contributing funds by the District on the west shore of the Pend Oreille River. The park facility includes a public boat launch, day-use moorage floats, parking, picnic areas, restrooms, and pedestrian pathways, including a path between Cusick and Usk. The facility was designed to be wheelchair accessible.

Oldtown, Idaho, completed a concrete public boat launch and dock in 1997 with contributing funding from the District. This facility is located just south of the Highway 2 bridge over the Pend Oreille River on the east side of the river. A visitor center and interpretive display are near completion at the site.

8.2.4 Federal Recreational Facilities

The USFS has three campgrounds along Box Canyon Reservoir: Edgewater, Panhandle and Pioneer Park Campgrounds. All three campgrounds are in forested settings and offer camping, picnicking, boating, fishing, swimming, and other water-related activities. District funded improvements were made to all three campgrounds in 1999 and 2000. Edgewater Campground is located north of Lone on the east side of the Pend Oreille River, off the Box Canyon - LeClerc Road. Pioneer Park Campground is located on the east bank of the Pend Oreille River, about 1½ miles north of the Oldtown Bridge. The Heritage Interpretive Trail is also located at Pioneer Park. The trail is 0.3 miles long, is partially wheelchair accessible, and has interpretive displays of the Kalispel Tribe's history. Panhandle Campground is located approximately 15 miles north of the bridge at Usk on the east side of the Pend Oreille River, off the LeClerc Road (County

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Route 9325) and approximately the same distance south of the Ione Bridge. The site has interpretive displays regarding homesteading and history of the Kalispel Tribe.

The Old Ruby Ferry (east shore) landing is also on Federal lands. This site has a rustic gravel boat launch with minimal parking space. Several other USFS undeveloped parcels of land exist along the Pend Oreille River that are not signed as public access sites. The District will be making improvements at the Ruby Ferry landing location to restore native vegetation where it has been disturbed and to protect the riparian and wetland areas there. The District will contribute funding for rehabilitation of the USFS land within the project boundary, north of Panhandle Campground to rehabilitate dispersed campsites and roads, and preserve a footpath to the river.

8.2.5 Kalispel Tribe Recreational Facilities

Kalispel Tribal lands offer buffalo viewing off LeClerc Road and the Tribe maintains other recreation facilities on the reservation including the PowWow Grounds, Manresa Grotto and the Kalispel boat launch. Kalispel Tribal lands are located mostly on the east bank of the Pend Oreille River. Another 240 acres are located across the river on the west bank, just north of Cusick. Buffalo are raised by the Tribe and can be viewed from LeClerc Road on the east bank of the river.

Manresa Grotto is located on Kalispel Tribal property. Caves, on the east side of LeClerc Road, at this site have been used for religious ceremonies by the Tribe and settlers for years. A stone altar and pews can be seen in the cave overlooking the valley. On the west side of LeClerc Road, a dirt road provides access to the east shore of the Pend Oreille River. The site has several picnic tables, a swimming beach, swimming dock, and at times, an outhouse.

Tribal Pow Wow grounds are located along the east bank of the Pend Oreille River, south of Manresa Grotto. The Pow Wow grounds include a ceremonial park built on the site of the Tribe's historical main camp and later permanent village. Ball fields are located along the road leading to the Pow Wow grounds. A boat launch is located on the River near the Tribal Pow Wow ground facilities. The Tribe sells approximately 10 permits per year to the public for waterfowl hunting on lower Calispell Creek. The price for a permit is \$1.00 per day with a 10-day minimum. In the fall of 1999, the Tribe began offering guided waterfowl hunting at the Flying Goose Ranch, which is located just north of the reservation on the east side of the river.

The Kalispel Tribe is planning several recreational improvements and projects to promote recreational opportunities for tribal members and, limited opportunities for use by non-tribal members. Projects planned over the next several years include Pow Wow-ground improvements, boat-launch improvements and a new bass-tournament facility, a new bike trail, improvements to the baseball facility and playground, a new interpretive center, and improvements to Manresa Grotto.

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8.2.6 Privately Owned Recreation Facilities

Five privately owned, resort facilities are located along the Pend Oreille River.

- 1) Ione Motel and RV Park is located in Ione, next to Ione City Park. The RV Park area provides fee RV and tent camping along the Pend Oreille River. The RV Park has 26 RV hookups and 4 tent sites, and a dock.
- 2) Blueslide Resort is located on the west side of the Box Canyon Reservoir off Highway 20. This resort provides opportunities to engage in all types of water related activities in the Box Canyon Reservoir. The resort offers a public fee boat launch, fee camping, a motel and cabins, RV hookups, and a dock for access to the reservoir. The dock is one of the only locations where boats can refuel on the reservoir. Blueslide Resort also has a net pen operation for raising catchable size rainbow trout for release into the Pend Oreille River. The resort has 46 camper/trailer sites, four motel rooms and five cabins.
- 3) Upstream of the Blueslide Resort and Ruby is the Outpost Resort. The Outpost Resort also offers all types of water-related activities on the reservoir. It has a fee boat launch, 10 fee tent spaces, 3 cabins, and 11 RV spaces, a dock, and café which has limited fishing and hunting supplies. The Outpost Resort offers fishing, boat rentals and pontoon boat river tours during the summer. Two bass tournaments operate out of the Outpost Resort each year during the middle of May and the first of June.
- 4) Keo's Corner and General Store, in the town of Usk, is a privately operated facility that provides a public fee boat launch, fee camping, RV hookups, and picnic tables. The store provides camping and fishing supplies, and fuel.
- 5) A Coast-to-Coast membership RV park and campground called Old American Campground is located in Newport on the southwest shore of the river. The park has 79 RV/campsites and a boat launch and dock. The park is generally for members only, but when the park is not full, the public can stay at the facilities. The boat launch may be used by the public with permission. Hunters often use the facility in the fall and winter.

Several community/private boat launches are located along the reservoir, including: 1) the Riveredge Estates community boat launch, 2) Holiday Shores community boat launch, 3) Riverbend Estates community boat launch, and 4) Greenwater Estates community boat launch. These boat launches are for use by residents of the subdivision/community, and are not for use by the general public. 5) The Pend Oreille Inn motel, located in the town of Ione, upstream of Box Canyon Dam, has a dock and offers boat rentals and rides on the reservoir. 6) Riverview Bible Camp is a private church group camp located on the west side of the reservoir off of Highway 20, just north of Jared. The camp has cabins, a private boat launch, dock and swimming beach. 7) Bear Paw Camp (Site 54) is located on the northeast side of the river just northwest of Furport. This is a group-reservation-only camp that offers cabins, a swimming pool, game courts, and river boating.

8.3 Future Recreational Facilities

The District will be contributing to additional improvements at the Cusick boat launch, Old Town boat launch, improvements at the Ruby Ferry landing site; building a new boat launch on the east side of the river, making additional improvements at Campbell Park, and contributing to

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the annual operation and maintenance of the Ione City Park, and the three USFS Campgrounds as well as annual contributions toward the operation, maintenance and capital cost of the Kalispel boat launch. The District will conduct surveys of recreational use at the Project every six years and to determine if recreational facilities at the Project are meeting recreational demands. The District will update its RRMP as needed to reflect the changing project demands.

In addition, at least three new private RV resorts are also in various stages of development along the Pend Oreille River that include Eagles Landing, Skookum Rendezvous, and Saddle Mountain RV Parks.

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9.0 CULTURAL AND HISTORIC RESOURCES

Important cultural resources are known to exist along the Pend Oreille River. The District's stewardship of the project area includes surveying and protecting these sites. During the relicensing of the project cultural resource surveys were conducted, resulting in the identification of a number of sites of potential cultural significance along the project shores. Under the Historic Resource Management Plan (HPMP) for the Project, evaluation of all identified sites will be completed, and nominations will be made to the National Historic Register, if appropriate. Monitoring of known sites will be ongoing at three-year intervals. The District will generally pursue a policy of protecting cultural sites in place, but where artifacts or human remains are found that require recovery, curation and appropriate housing, these activities will be carried out by qualified staff or consultants according to applicable statutes and regulations.

Prior to any ground-disturbing activities, a review will be made as to the location of any known cultural resource sites within the proposed work area. During construction, if any cultural resources are found, work will be halted immediately and the State Historic Preservation Office will be contacted.

10.0 LAND OWNERSHIP AND USE WITHIN THE PROJECT BOUNDARY

The Box Canyon Hydroelectric Project occupies state land on the bed of the Pend Oreille River and a strip or "bathtub ring" of land on each side of the river that lies above the ordinary high water mark. As stated above, the District owns only about 2.5 percent of the land within that ring. Approximately 12.5 percent of the project land is owned by the Kalispel Tribe and around 6 percent by the federal government, administered by the USFS. Additional federal ownership includes U.S. Bonneville Power Administration, USACE, U.S. Fish and Wildlife Service (USFWS), and Bureau of Land Management (BLM). Pend Oreille County owns 3 percent and the state less than one percent of the project lands.

Approximately 75 percent of the land in the Project area is privately owned. Privately held lands are generally towns, farmland, ranches, homes and cabins. Land surrounding the Box Canyon Project is mostly rural with large areas of forest, mountains, valleys, and open pastures with widely dispersed homes and ranches. Development within the Pend Oreille River drainage area includes timber harvesting, grazing, mining, heavy industry, urban and residential development, and recreation sites.

10.1 Project Area Maps

Maps filed with the FERC License application showing ownership and land use in Pend Oreille County are included in this plan at Appendix A, as well as maps from the Bonner and Pend Oreille County Comprehensive plans. Recreation sites are also identified on the Project area maps. Most of the forest lands in the Pend Oreille River drainage area are publicly owned national forests, administered by the Colville National Forest, or are owned by large corporations. A private duck refuge, owned by the Calispell Lake Duck Club, includes Calispell

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Lake and lands adjacent to the Lake, west of the Pend Oreille River, and southwest of the town of Usk.

Land uses within and adjacent to the Project boundary include:

- Agricultural (includes scattered houses and other structures)
- Open Forested (generally undeveloped)
- Open Grass Land/Shrubs (generally undeveloped)
- Open Riparian Trees/Shrubs (generally undeveloped)
- Commercial Developed/Dense Housing/Powerlines/Railroad/Paved Areas
- Recreational and Public Access Sites

The towns of Ione, Cusick, Usk, Newport, and Oldtown and the Kalispel Indian Reservation are located along the river in the Project area. Numerous residential developments, and public recreation and public access sites (described above) are also located along the Pend Oreille River in the Project area. Residential, recreation and retirement home developments along the Project reservoir have increased in recent years; numerous subdivisions exist or are under development. Forest, agricultural and open lands along the river are being replaced by new residential subdivisions.

Sets of clear acetate overlay maps showing the spatial distribution of other resources within the project area were prepared and distributed to several key resource agencies with overall land management responsibilities in September 1999 in association with the Project's relicensing. Due to the high cost and large format of these acetate map sets, only limited distribution was made. Resource agencies receiving the acetate overlay sets were the Kalispel Tribe, USFWS, USFS, WDOE, WDFW and Pend Oreille County as well as Garcia and Associates, consultants for the BIA. The maps are available for viewing by the general public at both the Pend Oreille County Planning Department and the Pend Oreille Public Utility District office in Newport.

Beneficial Uses map overlays include information on:

- Aquatic plant communities
- Wetlands
- Rare plants
- Shoreline erosion and hazard occurrence
- Wildlife habitats
 - Bull frog and spotted frog use areas
 - Raptor and bat nest sites and high use areas
 - Waterfowl and colonial water bird nest sites

Each of the listed resources is considered a beneficial use or, in the case of aquatic plants, erosion, and bull frogs, a resource condition affecting beneficial uses. GIS mapping allows the quantification and depiction of the spatial overlap among various beneficial uses. During consultation on the development of resource management plans with the agencies, Tribe, and interested stakeholders, the beneficial use maps may be used to show how management plans for one resource may potentially affect or be influenced by other resources.

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Pend Oreille County is developing Geographic Information System (GIS) mapping of the County that will provide land ownership and use data that will also be accessible for the purposes of shoreline planning and permitting. See section 12.7, below.

11.0 LAND USE AUTHORITIES AT THE BOX CANYON PROJECT

A number of entities have authority over land uses within the project area. The Box Canyon Hydroelectric Project is surrounded by private lands, public land and lands of the Kalispel Tribe of Indians. These lands are administered under existing local, state, federal, and Tribal land management plans. At the local level, Pend Oreille County has established land management plans for the area. Bonner County, Idaho, also has a land management plan that includes the area downstream of Albeni Falls Dam in the state of Idaho. The majority of federally owned lands in the Project vicinity are managed by the USFS under the Colville National Forest (CNF). Kalispel reservation lands are administered by the Kalispel Tribe and the Bureau of Indian Affairs (BIA).

11.1 Washington State and Local Authority Under the Growth Management and Shoreline Management Acts

The Washington State Legislature, finding that uncoordinated and unplanned growth posed a threat to the environment, sustainable economic development, and the quality of life in Washington, adopted the Growth Management Act in 1990. Known as the GMA, the Act (Chapter 36.70A RCW) requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital investments and development regulations. This approach to growth management is unique in the nation.

Rather than centralize planning and decision-making at the state level, the GMA, recognizing Washington's traditions of strong local government control and regional diversity, established state goals and set deadlines for counties to develop their plans. It offered direction on how to prepare local comprehensive plans and regulations and set forth requirements for early and continuous public participation. Within the framework provided by the mandates of the Act, local governments had many choices regarding the specific content of comprehensive plans and implementing development regulations.

Beyond the GMA, the State of Washington has established a comprehensive regulatory scheme for the shorelines of the state: the Shoreline Management Act (RCW 90.58), implemented through the regulations found at Chapter 173-26 of the Washington Administrative Code. The Shoreline Management Act (SMA), enacted in 1972, is designed to prevent harm associated specifically with uncoordinated, piecemeal development of the state's shorelines. It requires local governments to develop and implement Shoreline Master Programs as part of their comprehensive growth planning. The SMA is administered through a cooperative program between local governments and Ecology.

State Shoreline Master Program (SMP) Guidelines are standards which local governments must follow in drafting their master programs. The Shoreline Management Act applies to streams over

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20 cubic feet per second (cfs) mean annual flow. Rivers east of the Cascade Range over 200 cfs (or the portion downstream from the first 300 square miles of drainage areas) are classified as Shorelines of Statewide Significance. The SMA also applies to the submerged lands underlying these areas. The Shoreline Management Act applies to lakes and reservoirs greater than 20 acres in area. The area used to make this determination is defined by a continuous ordinary high water mark and may include vegetated areas as well as open water areas. The Pend Oreille River is considered a shoreline of statewide significance.

Local shoreline jurisdiction applies to the area waterward of the ordinary high water mark out to the local government's legal in-water jurisdictional boundary. Shorelands include those lands extending landward 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark (OHWM). On rivers, the shoreland area includes the entire floodway and contiguous flood plain areas landward 200 feet from the floodway.

All wetlands that are in proximity to, and either influence, or are influenced by, a lake or stream subject to the Shoreline Management Act are considered associated wetlands and are also subject to the SMA. Factors used to determine whether wetlands meet the "proximity and influence" test include but are not limited to one or more of the following:

- Periodic inundation
- Hydraulic continuity
- On marine waters: formation by tidally influenced geohydraulic processes; or a surface connection through a culvert or tide gate
- On streams: the entire wetland is associated if any part is located within the 100 year floodplain of a shoreline.

The SMA is a cooperative effort: local jurisdictions develop and adopt shoreline master programs, which must be approved by Washington Department of Ecology as being consistent with the SMA. The local jurisdiction then enforces the shoreline regulations it has enacted under its approved plan.

Washington's SMA gives preference to uses that:

- Protect the quality of water and the natural environment;
- Depend on proximity to the shoreline (water dependent uses); and
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

Shoreline permit approvals must include any conditions that are needed to ensure that the project is consistent with the SMA and the shoreline master program. Conditions that are imposed on shoreline permits run with the property even if ownership changes, they must be complied with, even after the permit expires, for the life of the development, or beyond, if the circumstances warrant such an interpretation. The Department of Ecology recommends that local jurisdictions require certain conditions be recorded on the title of the property, particularly those that commit a property owner to maintain habitat or public access. Recording conditions such as vegetation buffers, habitat mitigation areas (including submerged sites), public access points, trails, or

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parks, and flood control measures will alert future property owners of the commitment for maintenance of such areas in perpetuity. Typical conditions issued under a shoreline permit might include:

- landscaping,
- screening and berms,
- hooded lighting,
- limited operating hours,
- provisions for public access,
- monitoring of water quality or other environmental parameters, or
- modifications of proposed structures to limit obstruction of shoreline views.

Pend Oreille County has a Shoreline Master Plan and a Comprehensive Land Use Plan that guide permitting of shoreline uses.

11.2 Pend Oreille County Authority Over Land Use at the Box Canyon Project

Pend Oreille County, using the procedures described in its Comprehensive Plan, developed under the State's GMA, is the primary authority for land use permitting in the project area (53 river miles out of a total 55 river miles). The plan describes goals and strategies for property rights, water quality, rivers and streams, wildlife habitat, resource lands, future land use, public lands, housing capital facilities, and economic development. The goals and strategies provide a basis for the County's development regulations. The general guiding principles of the planning in Pend Oreille County include (Pend Oreille County 2005):

- a. Maintain natural resource assets and preserve the rural character of the area;
- b. Regulations should be kept a minimum, utilizing education and incentives to the greatest extent possible to promote compatible and responsible land uses;
- c. New developments should be of a suitable scale and compatible with the rural character of our community, while providing adequate facilities;
- d. Planning in Pend Oreille County should be a partnership. The partnership should consist of landowners, local, tribal, state, and federal agencies working together to achieve common goals; and
- e. The Pend Oreille County Board of Commissioners should support and encourage partnerships that contribute to the coordination and conservation of natural resources.

Future land use in the County will be guided by the Pend Oreille County Comprehensive Plan and accompanying Development Code, and the County's Shoreline Master Plan, which was adopted before the GMA in 1974, and is at the time of this writing in the process of being updated and incorporated into the Comprehensive Plan. The Comprehensive Plan provides a future land use map that illustrates, in a general way, the future land use pattern that should result from the implementation of the policies and ordinances that govern the county's permitting of uses. The plan anticipates that Pend Oreille County will continue to be a mix of large expanses of public land, small towns, a limited acreage of agricultural lands, lake resorts, and rural lands in

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which small-scale residential developments and resorts are patches within a matrix of forest lands of varying productivity and economic significance (Pend Oreille County 2005). The plan also outlines the open space framework. This includes identified, open-space resources that must be protected to sustain the rural economy and character of the County.

The Pend Oreille County Shoreline Master Program provides goals and policies for the development and use of shorelines. The plan covers water areas of the County, including reservoirs and their associated wetlands, together with the lands underlying them. The Shoreline Master Program also provides shoreline use regulations that address 19 different shoreline uses and define specific regulations for their individual use. The specific use regulations are used in the evaluation of the substantial development permits issued or denied by the County.

The Shoreline Master Program places the shoreline environment into one of four classifications (Pend Oreille County 1974):

Conservancy Environment. The objective in designating a conservancy environment is to protect, conserve and manage existing natural resources and valuable historic and cultural areas in order to insure a continuous flow of recreational benefits to the public and to achieve sustained resource utilization. Examples of uses that might be predominant in a conservancy environment include diffuse, outdoor-recreation activities, timber harvesting on a sustained yield basis, passive agricultural uses such as pasture and range lands, and other, related uses and activities.

Natural Environment. The natural environment is intended to preserve and restore systems existing relatively free of human influence. Local policies to achieve this objective should aim to regulate all potential developments degrading or changing the natural characteristics which make these areas unique and valuable.

Rural Environment. This designation is intended to protect agricultural land from urban expansion, restrict intensive development along undeveloped shorelines, function as a buffer between urban areas, and maintain open spaces and opportunities for recreational uses. The Shoreline Master Program classifies the Pend Oreille River, from the Canadian border to approximately five miles south of Box Canyon Dam, as Conservancy, with the exception of the Town of Ione.

Urban Environment. The objective of this designation is to ensure optimum utilization of shorelines within urbanizing areas by providing for intensive public use and by managing development so that it enhances and maintains shorelines for a multiplicity of urban uses.

Ione, in addition to numerous other areas such as towns and subdivisions along the reservoir are classified as Urban Environment. Throughout the rest of Box Canyon Reservoir, shorelines classified as Urban Environment are interspersed with shorelines classified as Conservancy and Rural. Shorelines classified as Natural Environment are located along the west side of the reservoir, just north of the Blueslide Resort and along several of the islands south of Furport.

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11.3 Federal Land Management in the Project Area

Federal lands within the Project are managed under the Colville National Forest's Land Management Plan and other federal statutes and regulations. The Forest Service manages with consideration also of County and state regulatory requirements.

11.3.1 Land and Resource Management Plan Colville National Forest

The Record of Decision for the Colville National Forest Land and Resource Management Plan was signed on December 29, 1988 and provided for allocation of lands within the Colville National Forest (CNF) into various Management Areas, along with Standards and Guidelines for management of those areas. The CNF Forest Plan was amended by the Decision Notice for the Inland Native Fish Strategy in July 1995 to provide direction in the form of riparian management objectives, as well as standards and guidelines. USFS lands along the reservoir, and just south of Box Canyon Dam, are within Management Areas 1, 5, 6, and 8. Each Management Area has specific management prescriptions that provide multiple-use direction for managing the area. Management prescriptions are implemented within the Forest Wide Standards and Guidelines (USFS 1988).

As this SMP is being drafted, the Colville and the Okanogan and Wenatchee National Forests are revising their Forest Plans. These plans are near the end of their intended 10-15 year life cycle. (The Colville Forest Plan was completed in 1988, the Okanogan in 1989, and the Wenatchee in 1990.). The plans will be revised to reflect resource and social changes on all three Forests, as well as new scientific information and will continue to emphasize scenic and riparian values on Forest Service lands along the Pend Oreille River. The revised Colville National Forest Plan is expected to be issued for comment in mid 2007 with finalization expected by the end of that year.

11.3.2 Federal Regulation of Wetlands

The primary legislation related to wetland protection at the federal level is the Federal Water Pollution Control Act of 1972 and subsequent amendments, popularly known as the Clean Water Act. The objective of this act is to restore and maintain the physical, chemical, and biological integrity of the nation's waters, primarily through regulation of the discharge of fill material into waters of the United States. Under section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has regulatory responsibility for regulating the discharge of dredge and fill materials placed in the nation's waters and wetlands. Pend Oreille County Resource Lands and Critical Areas Ordinance #92-4, Section 200, also provides policies and regulations regarding the protection of wetlands (Pend Oreille County 1996a). Regulations prohibit excavation, grading, dredging, discharging, filling, draining, flooding, or disturbing Category I or II wetland and the adjacent buffers. Setbacks are applied to all new construction after the adoption of the ordinance. Required setbacks are determined by wetland category and the intensity of land use proposed.

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11.3.3 Federal Regulation of Floodplains

The primary legislation related to floodplains at the federal level is Executive Order 11988 (May 24, 1977). This order directs federal agencies to evaluate the potential effects of any actions within floodplains to avoid short- and long-term adverse impacts associated with their modification. Determination of floodplain areas is based on National Flood Insurance Program maps or the best existing available information. Floodplains are mapped along the Pend Oreille River on Federal Emergency Management Agency (FEMA) Maps. Zone A shown on FEMA maps includes areas of 100-year flood. Zone A includes essentially all of the Project Boundary and some adjacent areas. Zone A areas adjacent to the Project boundary generally include: many of the major creeks and sloughs and some smaller drainages in the Project area; inland areas north of Tiger; most of the Cusick Valley including lands from north of Gardiner Creek to south of Cusick Creek, areas upstream and around Tacoma and Trimble Creeks, Calispell Creek and Lake and surrounding lands, and Davis Creek inland area near McCloud Creek on the south side of the river; and most of Sandy Shores Estates and Sunny Side Meadows and surrounding area up to LeClerc Road.

11.3.4 Interior Columbia Basin Ecosystem Management Project

In July of 1993, President Clinton directed the Bureau of Land Management (BLM) and USFS to develop a scientifically sound, ecosystem-based management strategy for lands they administer in the Columbia River Basin. As a result, the Interior Columbia Basin Ecosystem Management Project was formed to plan for the area including those portions of the Columbia River Basin, upper Klamath Basin, and northern Great Basin that lie east of the Cascade Mountain range. This project was completed in February 2003 when the USFS, BLM, NOAA Fisheries, USFWS, and EPA signed a Memorandum of Understanding (MOU). The MOU states that the “*The Interior Columbia Basin Strategy*” will be cooperatively implemented to guide the efforts to update land use plans for National Forests and BLM lands in the four-state region. The Project, initiated in January 1994, addressed the landscape health issues facing the Columbia River Basin such as the threat of wildfire, noxious weeds, and the protection and restoration of habitat for fish and wildlife species. The Project also addressed the socio-economic effects of federal land management decisions.

11.4 Kalispel Tribe Land Management

In 1997, the Kalispel Natural Resources Department adopted a Fish and Wildlife Management Plan which outlines the mission, goals and objectives for sound resource management on the ceded lands of the Kalispel Tribe of Indians (Kalispel 1997). The plan addresses management of fisheries, water quality, wildlife, wetland, riparian, and botanical resources. Following approval by the Kalispel Tribal Council, this document contains the guiding principles for the department. In 2005, the Kalispel Tribal Council approved an updated version of this plan. KNRD continues to utilize watershed management principles to make the management of sustainable native populations and habitats a priority. Non-native populations and/or artificial habitat management will be addressed based upon population health, habitat condition, and feasibility. .

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11.5 Idaho State and Local Authority Over Land Use Planning in the Project Area

Although the State of Idaho does not have comprehensive growth management or shoreline statutes comparable to those in Washington, it mandates that counties enact comprehensive plans that establish authority over shoreline planning and development. Thus, Bonner County has authority over shoreline development in the 2-mile stretch of the project area that extends into Idaho below Albeni Falls Dam through the County's Comprehensive Plan and associated regulations. The Idaho Department of Water Resources also maintains authority over alterations to shorelines of the state under the Idaho Stream Channel Protection Act, which protects fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality. This means IDWR must approve in advance any work being done within the beds and banks of a continuously flowing stream.

11.5.1 Bonner County Comprehensive Plan

Bonner County is charged by Idaho Code, Section 67-6508, with the preparation, implementation, review and update of a "comprehensive plan" that considers previous and existing conditions, trends, desirable goals and objectives, or desirable future situations for 14 land use planning components. Bonner County's Comprehensive Plan was adopted in 1978, and revised over the course of several years, with the following revised sections all now adopted.

1. Property Rights (Adopted 2001)
2. Economic Development (Adopted 2002)
3. Hazardous Areas (Adopted 2002)
4. Recreation (Adopted 2002)
5. Special Areas or Sites (Adopted 2002)
6. Implementation (Adopted 2002)
7. Transportation (Adopted 2002)
8. Housing (Adopted 2002)
9. Public Services (Adopted 2002)
10. Natural Resources (Adopted 2003)
11. Population (Adopted 2003)
12. Land Use (Adopted 2005)

The plan provides a general guide for future development based on existing social and physical conditions and the desires of county residents. The plan addresses major topics including Economic Development, Public Services, Transportation, Natural Resources, and Community Design. A proposed land use map is provided in Appendix B which shows the lands use designations for development of Bonner County. Lands within and adjacent to the Project boundary are classified as Rural, Suburban, and Transition in the Comprehensive Plan. These classifications are described as follows (Bonner County 2005):

1. *Transition*: The Transition classification is reserved for those areas of the County where a mixture of land uses can occur which may include higher density residential uses, commercial, industrial and light industrial uses. Due to the intensity of land use, these areas require primary transportation routes, urbanlike water and sewer services, fire and police services.

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6. *Suburban Growth Area*: The Suburban Growth Area is located on the edges of the incorporated cities or higher density developed communities or areas, where urban sewer and water services may not be available or are not likely to be extended. Access to primary transportation routes and a system of hardsurfaced roads are expected.

7. *Rural Residential*: The Rural Residential area provides for residential development in areas where urban services are not available and slopes may vary up to 30%. These areas include hazard areas and critical wildlife habitats, where lower densities reduce potential impacts to resources and exposures to loss of property or lives. Small-scale agricultural uses and residential development are permitted.

12.0 SHORELINE PERMITTING

Washington State is unique among the states in that it has its own comprehensive regulatory framework that applies to permitting development of the shorelines of the state. In 1971, the Shoreline Management Act was passed to protect the State's shorelines from uncoordinated development by establishing a balance of authority between the local city/county jurisdictions and the Washington State Department of Ecology. The SMA applies to waters of the state in all 39 counties and 200 cities. "Waters of the State" are considered to be all marine waters, streams with a mean annual flow greater than 20 cfs, and waters with an area larger than 20 acres. Permitting jurisdiction under this program covers the 200 feet landward of the ordinary high water mark on these waters and also the wetlands and 100-year floodplain associated with these waters. The SMA directs each city and county to develop their own Shoreline Master Program that is based on state guidelines but tailored to the specific needs of each community. These local shoreline master programs include both plans and regulations. The plans are the comprehensive view of how the shorelines are to be used and developed over time as envisioned by each community. The regulations are the standards that the shoreline projects and uses must meet.

Each local jurisdiction has established a system of permitting for shoreline development. Substantial Development Permits are needed for projects costing over \$5000 or those which materially interfere with the public's use of the waters. Conditional Use or Variance permits are other types of shoreline permits allowed to give flexibility and consideration to special circumstances. Exemption Permits are also issued for:

- Single family residences
- Normal protective bulkheads for single family residences
- Normal maintenance and repair of existing structures
- Docks worth less than \$10,000 (freshwater)
- Normal farming activities
- Emergency construction needed to protect property

The shoreline permitting process can vary slightly with each local jurisdiction. Once the shoreline permit application is submitted, the local jurisdiction publishes notice of the application in a local newspaper and adjacent landowners are notified of the proposal. A public hearing may be required. Fees are paid to the local government and the permit is issued typically within 2-3 months or longer, dependent on any controversial issues associated with the proposal.

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WDOE has 21 days to review substantial development permits and 30 days to review conditional use and variance permits. WDOE must give its approval for any conditional use and variance permits issued by the local authority. WDOE's role is to determine if the local action is consistent with the local master program and the policy of the SMA. If there is disagreement, the WDOE or the Applicant may appeal the decisions to the Washington State Shoreline Hearings Board.

Under this program, because the Pend Oreille River has a mean annual flow greater than 20 cfs, any proposed work on the shorelines within the Box Canyon Reservoir falls under the Pend Oreille County's shoreline master program.

12.1 Federal Permits

This summary was developed to provide an overview of the permitting authorities most often involved in land management and shoreline activities at the Box Canyon Project.

12.1.1 U.S. Army Corps of Engineers Section 404 Permit

A U.S. Army Corps of Engineers Clean Water Act, Section 404 Permit is required for any work below the ordinary high water level that involves dredge and fill activities in waters of the U.S. and wetlands.

Contact Information: U.S. Army Corps of Engineers
Seattle District Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255
(206) 764-3495
(206) 764-6602 (fax)

12.1.2 U.S. Army Corps of Engineers Section 10 Permit

A Rivers and Harbors Act, Section 10 Permit is required from the U.S. Army Corps of Engineers for any work in or affecting navigable waters of the United States (e.g., floats, piers, docks, dredging, excavation, piling, buoys, overhead power lines, etc.).

12.1.3 Section 401 Water Quality Certification

Clean Water Act, Section 401 Water Quality Certification is also required whenever a Corps of Engineers Section 404 permit is required. Certification is issued by the Washington Department of Ecology concurrently with the Corps of Engineers Section 404 permit.

12.2 State Permits

The following permitting processes apply to shoreline development in Washington State and in the State of Idaho.

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12.2.1 Washington State

12.2.1.1 Hydraulic Project Approval (HPA)

- Permitting Agency: Washington Department of Fish & Wildlife (WDFW)
- Description: Any form of work that uses, diverts, obstructs, or changes the natural flow or bed of any freshwater or saltwater of the state.
- Process: Permit processing normally takes about 45 days and there are no public hearings required for approval. HPA applications are assigned to a habitat biologist. In most cases, a site visit is arranged to meet with the applicant to point out fish habitat needs and how the project will affect that habitat. Their representative will work with you to help achieve your objectives while protecting fish, shellfish, and their habitat.
- Content: HPA applications must include general plans for the overall project and complete plans and specifications for the proposed work within the ordinary high water level. The application must also include complete plans and specifications for proper protection of fish.
- Contact Information: Washington Department of Fish and Wildlife
2315 North Discovery Place
Spokane Valley, WA 99216-1566
Telephone (509) 892-1001
Fax (509) 921-2440

<http://wdfw.wa.gov/hab/hpapage.htm>

<http://wdfw.wa.gov/reg/region1.htm>

12.2.1.2 Aquatic Resources Use Authorization Notification

Aquatic Resources Use Authorization Notification is required from the Washington Department of Natural Resources if your project is on, crosses, or impacts the bedlands, tidelands or shorelands of a navigable water.

- Contact Information: Washington Department of Natural Resources
1111 Washington Street SE
PO Box 47027
Olympia, WA 98504-7027
Telephone: (360) 902-1100
Fax: (360) 902-1786

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12.2.2 Idaho Permits

12.2.2.1 Stream Alteration Permit

The Idaho Stream Channel Protection Act requires a permit for most stream channel alterations that occur below the ordinary high water mark of a continuously flowing stream. Permits are not required for work done on intermittent streams, for the Port District of Lewiston, reservoir projects, or for work on structures related to valid water rights. An emergency permit can be issued if an activity is needed to protect life or property, as may be the case during times of flooding.

When a permit application is received by IDWR, it is forwarded to several agencies, including the Department of Environmental Quality, for review and comment. Agencies have the opportunity to conduct a site visit and request specific conditions of approval relating to minimizing adverse environmental effects of the project. IDWR can incorporate these comments into the Stream Alteration Permit. The comment period is three weeks.

Contact Information: Idaho Department of Water Resources
Northern Regional Office
10 Northwest Blvd.,
Suite 210
Coeur d'Alene, ID 83814-2615
Tel: (208) 769-1450
Fax: (208) 769-1454

http://www.idwr.state.id.us/water/stream_dam/sca/scamain.htm

12.3 Local Jurisdiction Permits

12.3.1 Pend Oreille County Permits

12.3.1.1 Shoreline Management Act Permits (County and City Governments)

Permitting Agency: Local Management Authority (location-specific)

Pend Oreille County and Cities of Newport, Cusick, Ione, Metaline,
Metaline Falls

Description: Required for any development or construction activity located 200 hundred feet landward of the high water mark and valued at \$5000 or more. This permit is required for any use or activity that materially interferes with the normal public use of the water or shoreline, for any activities listed as a conditional use in the local master program and for any activity that requires a variance from the provisions of the local master program.

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- Process: The procedures for obtaining this permit vary as do the processing times and generally a public hearing is required. If a shoreline variance or conditional use permit is required, the Department of Ecology must also issue its approval.
- Content: The content of an application for this permit varies by the specifics of the governing plan but generally requires an affidavit of public notice, a location map, a topographic map, and a site map are required.
- Contact Information: Pend Oreille County Planning Department
625 4th St
Newport, WA 99156
(509) 447-4821

<http://www.ccy.wa.gov/programs/sea/shorelan.html>

12.3.1.2 Floodplain Development Permit

Pend Oreille County Ordinance No. 81-2 (1996b) was developed to establish eligibility in the National Flood Insurance Program. The ordinance applies to areas designated as Zone A on FEMA maps. The floodplain ordinance prohibits most construction activities in Zone A areas without first obtaining permits from the designated, county, responsible person. The ordinance outlines review responsibilities of the responsible person to ensure that necessary permits are received, that building sites will be reasonably safe from flooding and that specific information is obtained.

12.3.2 Bonner County, Idaho Permitting

A building location permit is needed for erecting, constructing, setting, placing, installing, enlarging, extending, moving, or converting any building, residence or structure in unincorporated Bonner County. A development permit is required when development occurs within a flood hazard area (flood plain) and specific conditions may be imposed that include construction methods and practices that prevent or minimize flood damage.

12.4 Consolidated Permit Applications

12.4.1 Washington Joint Aquatic Resource Permit Application

The Joint Aquatic Resource Permit Application (JARPA) is a Washington State application form that consolidates seven permit application forms for federal, state, and local permits. JARPA is used to apply for a Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife (WDFW), U.S. Army Corps of Engineers permits, Water Quality Certifications from the Washington Department of Ecology, Aquatic Resources Use Authorizations from the Washington Department of Natural Resources, and Shoreline Management Act permits from participating city or county agencies. Currently, most but not all local government agencies use JARPA and applicants need to contact their local planning office to determine if they accept

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JARPA documents. JARPA forms are available from any WDFW office, as well as from any Department of Ecology, Army Corps of Engineers, participating local government offices (contact information is listed in the appropriate sections below), or off the Internet (see below). Copies of the JARPA form must be submitted to all participating agencies that require a permit for a proposed project.

Further information on the JARPA program is available on-line at:

<http://wdfw.wa.gov/hab/hpapage.htm>

and the JARPA application form is available on-line at:

<http://www.ecy.wa.gov/programs/sea/pac/jarpa.html>

The Department of Ecology's Permit Assistance Center offers the public a central repository of permitting resources and advice. Their offices are located at:

Washington Department of Ecology
Permit Assistance Center
300 Desmond Drive SE
Lacey, WA
(360) 407-7037
(800) 917-0043

The Permit Assistance Center also offers their On-Line Permit Assistance System on the Internet at:

<http://www.ecy.wa.gov/programs/sea/pac/>

This website offers the user a wealth of information on determining which federal and state permits are required for a given project. The user answers a series of questions and the on-line system returns a list of required permits, a contact for each permit, and additional information on the identified permits. However, the On-Line Permit Assistance Center does not provide information on required permits and approvals from city or county governments.

12.4.2 Idaho Joint Application for Stream Channel Alteration Permit

The State of Idaho also has a consolidated application to apply for ACOE Section 404/10 Permits, IDWR Stream Channel Alteration Permit, and a Lake Encroachment Permit from Idaho Department of Lands. It is only required to submit the application to IDWR to begin the required review by all the other agencies.

It typically takes about 60 days before the permit to be issued. The permitting rules do not require public notices or public hearings. However, in some special circumstances the processing time can be extended and could include a public hearing process. This is typically a project in an

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area of high public sensitivity or in which there is expected to be great public interest or controversy.

12.5 Integration of District Responsibilities with Permitting Authorities

Because it owns so little of the land around the Project (2.5%), the District does not have adequate authority to control private land uses along the Project shoreline. Therefore, the District coordinates with the local permitting authorities to ensure that shoreline uses are managed consistent with FERC License requirements. Pend Oreille County is the primary authority for zoning and land use permitting in the Washington State portion of the Project area. Bonner County has permitting authority for the Idaho portion of the Project shorelines. The permitting review process by Pend Oreille County for shoreline uses along the Box Canyon Reservoir includes a specific provision for providing notice to the District of the development application and information. The District then reviews the proposed use of the shoreline, and makes the following determinations:

- 1) Whether the shoreline use is consistent with project operations;
- 2) Whether the shoreline use is consistent with provisions for public access and public recreation at the project;
- 3) Whether the shoreline use will interfere with protection of environmental resources at the project, in accordance with the various plans described above, and;
- 4) Whether the shoreline use will disturb or interfere with protection of cultural or historic resources within the project area

The District will also determine if prior FERC approval is necessary. If so, the District contacts the permit applicant and coordinates the submission of the necessary information to FERC together with the District's recommendation with respect to permitting the development or use.

The District will maintain the approved Shoreline Management Plan at its office and on its website at: <http://www.popud.com/>

12.6 Enforcement of Shoreline Regulation at the Project

The District agrees to assist Pend Oreille County and Bonner County, US Forest Service and the Kalispel Tribe in enforcing shoreline regulation at the Project. As described in earlier sections of this plan, the District will be engaged in numerous activities to protect and enhance environmental and cultural resources in the project area throughout the 50-year term of its current license. Erosion monitoring will occur at many locations throughout the project's shorelines twice a year. The District will immediately notify the counties and the relevant resource agencies of any nonconforming shoreline uses or activities observed during its surveys and activities along the Box Canyon Reservoir. In addition, the District performs a general purpose annual survey by boat of all the project shorelines. The District will invite Pend Oreille Counties to send a representative to participate in the annual surveys so as to further assist their ability to patrol shorelines under their jurisdictions and enforce their respective shoreline regulations.

Box Canyon Hydroelectric Project, FERC No. 2042
Draft Shoreline Management Plan

12.7 Future Planning

The District will report yearly to FERC the progress of all District activities along the shorelines. The Shoreline Plan will be reviewed every five years, which will include review of the applicable state, federal and local regulations, and land ownership and development. The plan will be updated if necessary, to reflect changes in the regulatory regimes and development patterns along the project shorelines.

Pend Oreille County is seeking to establish a regional consortium to improve and integrate existing geospatial data and to make it available on *The National Map* through a unique local partnership arrangement that may serve as a model for other rural communities throughout the Country. In an effort to make the most effective use of limited local resources, Pend Oreille County has sought the support and active involvement of the Kalispel Tribe of Indians and the Public Utility District. As Project Sponsors, the District and the Tribe have indicated a willingness to share data and resources to support the development, shared use and management of a county-wide Geographic Information System. Additionally, most Forest Service Geographic Information System data is available online free of charge and should integrate with this system. Coordinating all of this data should provide a more complete picture of resources within the county without duplicating manpower or fiscal efforts.

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13.0 REFERENCES

Bonner County, ID, Planning Department. 2005. Land Use Component, Bonner County Comprehensive Plan. Adopted by Resolution of the Bonner County Board of Commissioners. Resolution #05-87. December 13, 2005.

Code of Federal Regulations, Title 18, Chapter I

Federal Power Act (1935), 16 U.S.C. §§ 791a-797, 798-824a, and 824b-825r, June 10, 1920, as amended.

Federal Water Pollution Control Act (1972). 33 U.S.C. §§ 1251-1387, October 18, 1972, as amended.

General Bridge Act of 1946. U.S. Code Title 33, CHAPTER 11, SUBCHAPTER III § 525 (1946) as amended.

Growth management - planning by selected counties and cities, Title 36, Wash. Rev. Code, Chapter 36.70A (1990) as amended.

Idaho Stream Channel Protection Act, Title 38, Chapter 42, Idaho Code (1971).

Pend Oreille County, WA, 2005. Comprehensive Plan. Adopted by Resolution of the Pend Oreille County Board of County Commissioners, Resolution No. 2005-33. December 17, 2005.

Planning Enabling Act, Title 36, Wash. Rev. Code, Chapter 36.70 (1963).

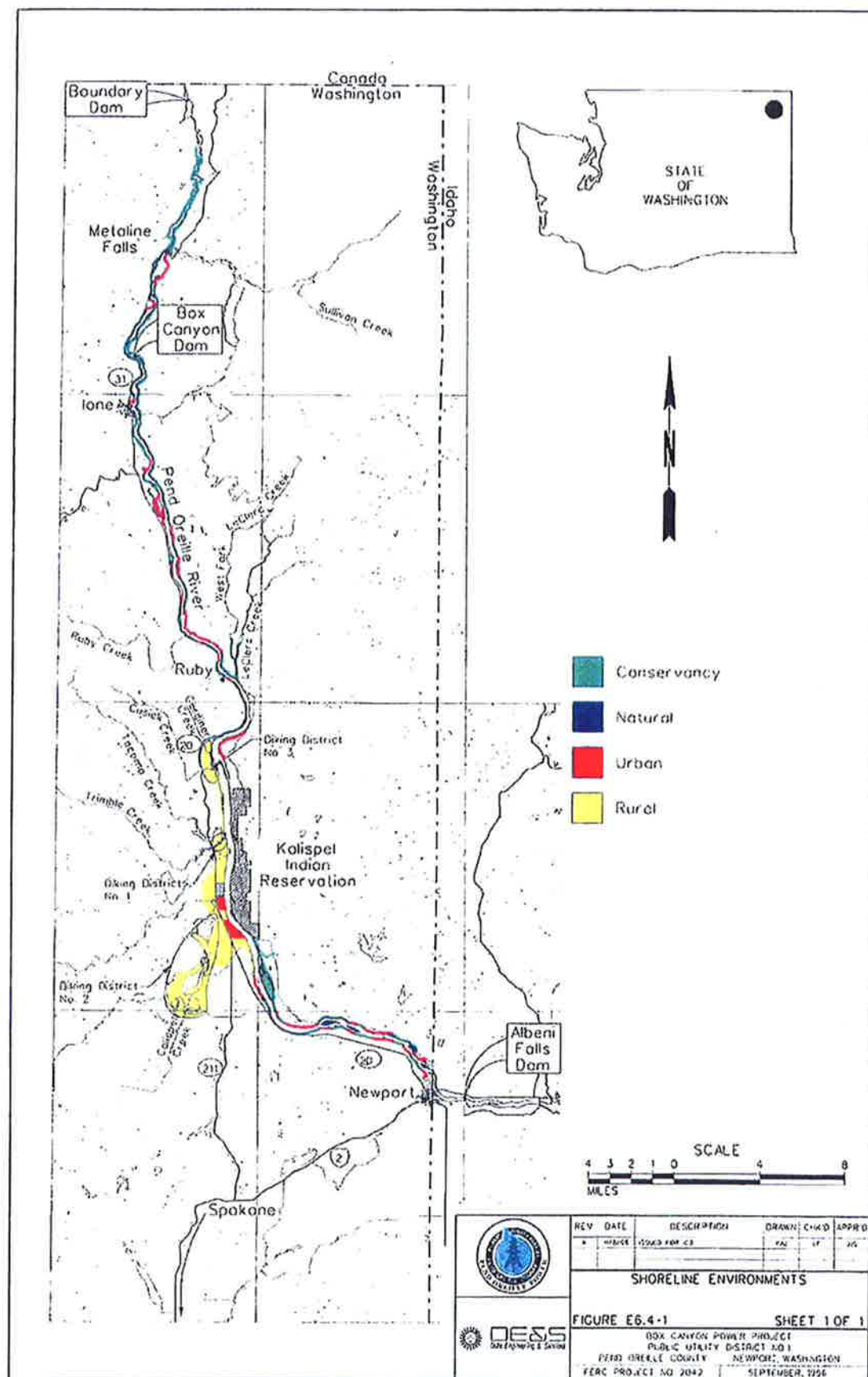
✿ Rivers and Harbors Act (1899). 33 U.S.C. §401 (SEC. 9), 33 U.S.C. §403 (SEC. 10)

Shoreline Management Act of 1971, Wash. Rev. Code § 90.58 (1971).

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Appendix A

Box Canyon Project Area Maps



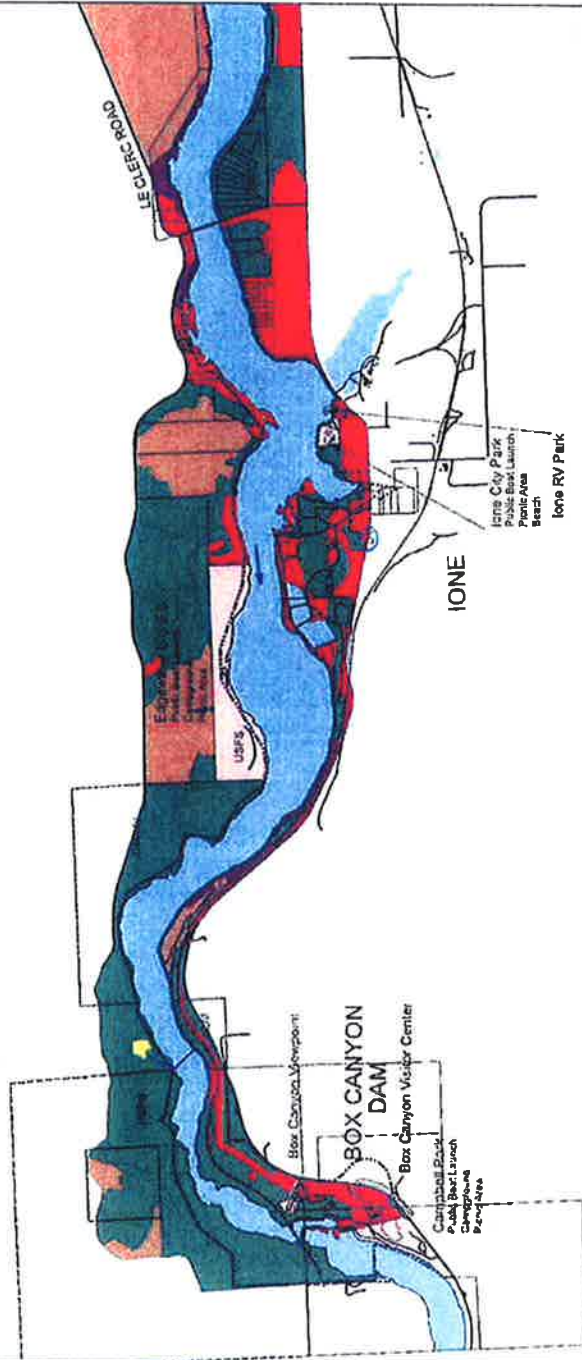


Legend

- +— Railroad
- Road
- Private Property Lines
- Public Lands
- Project Boundary
- Upland Vegetation**
 - Agricultural
 - Open Forestland
 - Open Grass Lands/Shrubs
 - Riparian Trees/Shrubs
 - Urban
 - Open Water
 - Recreational and Public Access Sites

0 1,000 2,000 4,000 Feet
1 inch equals 2,000 feet

Project Area Land Use
and Ownership Map
Box Canyon Hydroelectric Project
Sheet 1 of 11



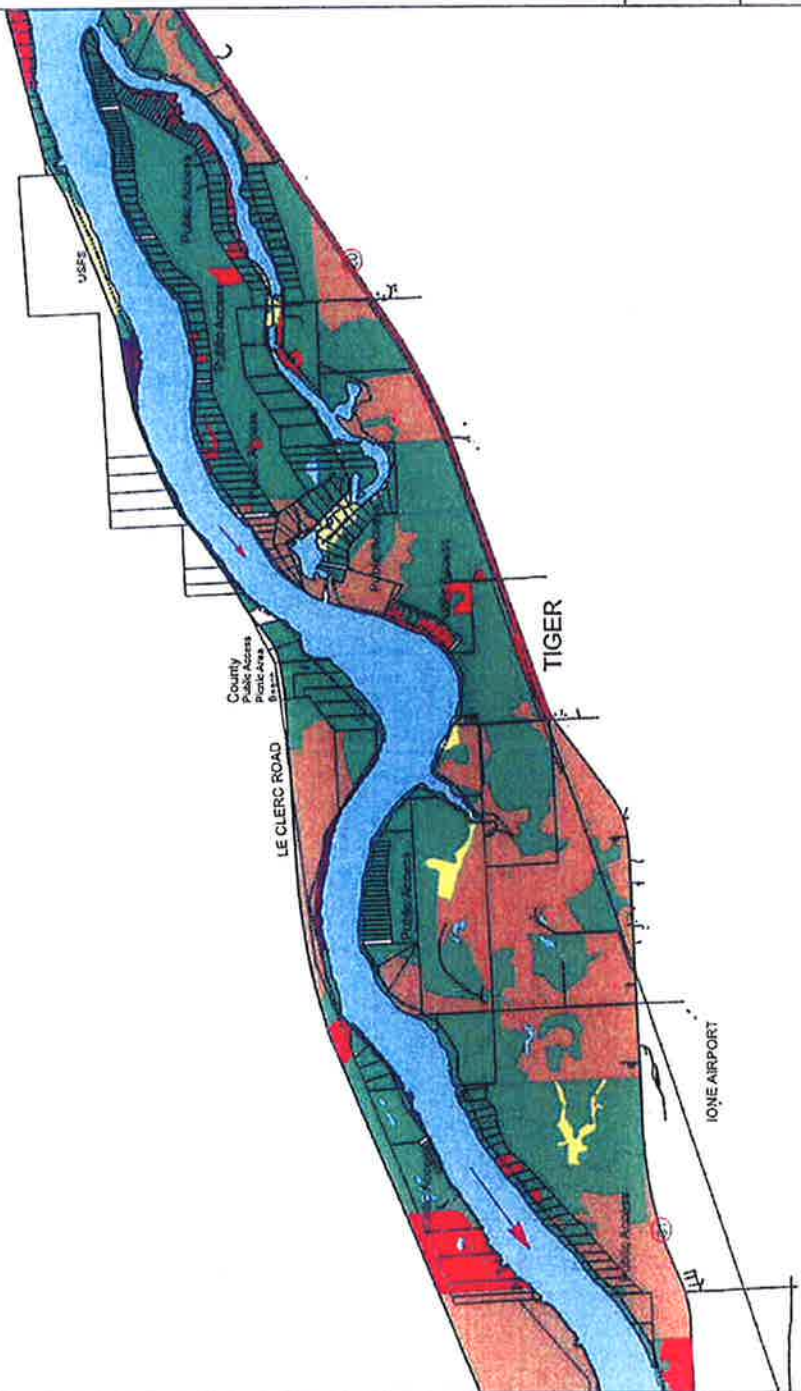


Legend

- Railroad
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Project Area Land Use
and Ownership Map
Box Canyon Hydroelectric Project
Sheet 2 of 11

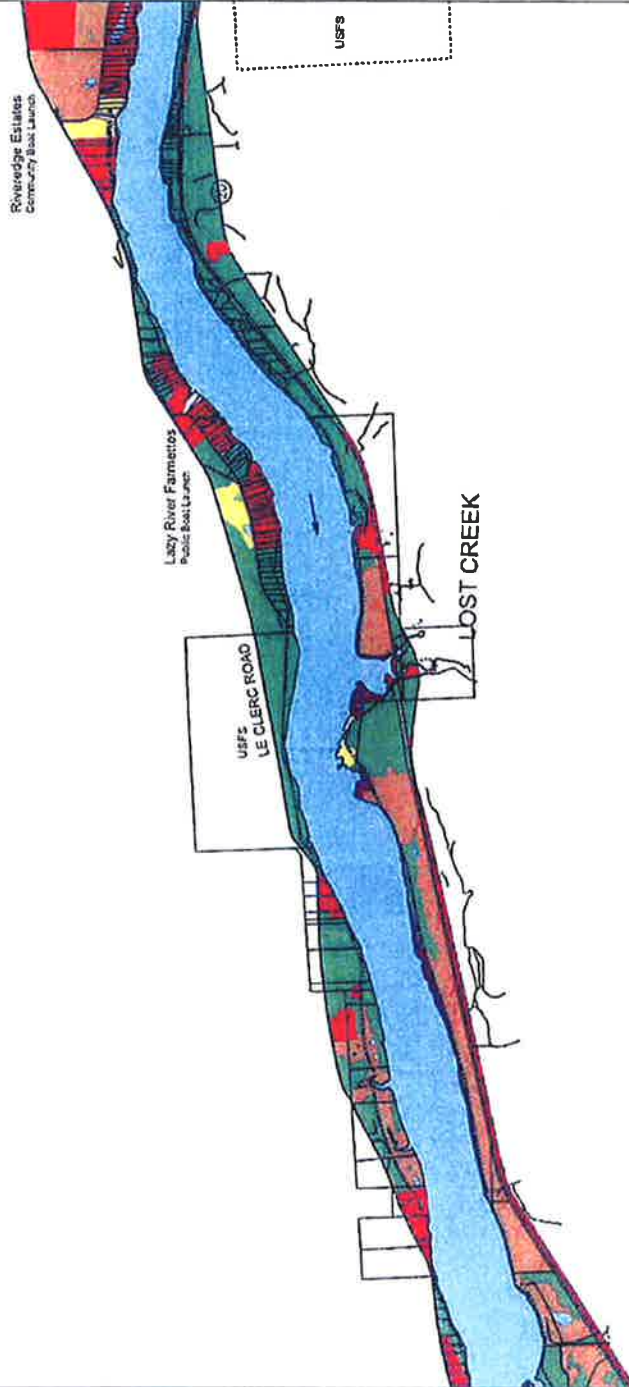


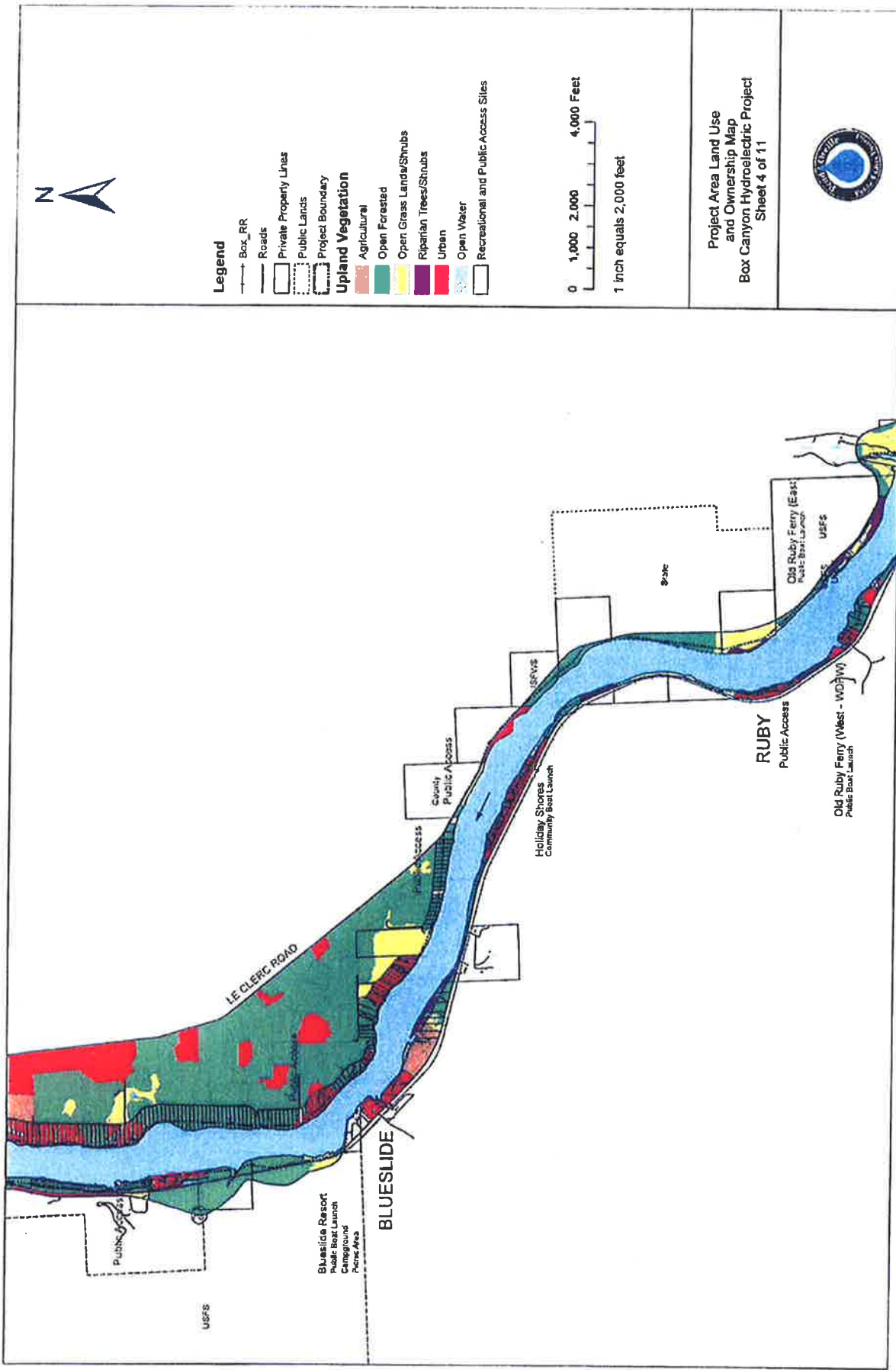


- Legend**
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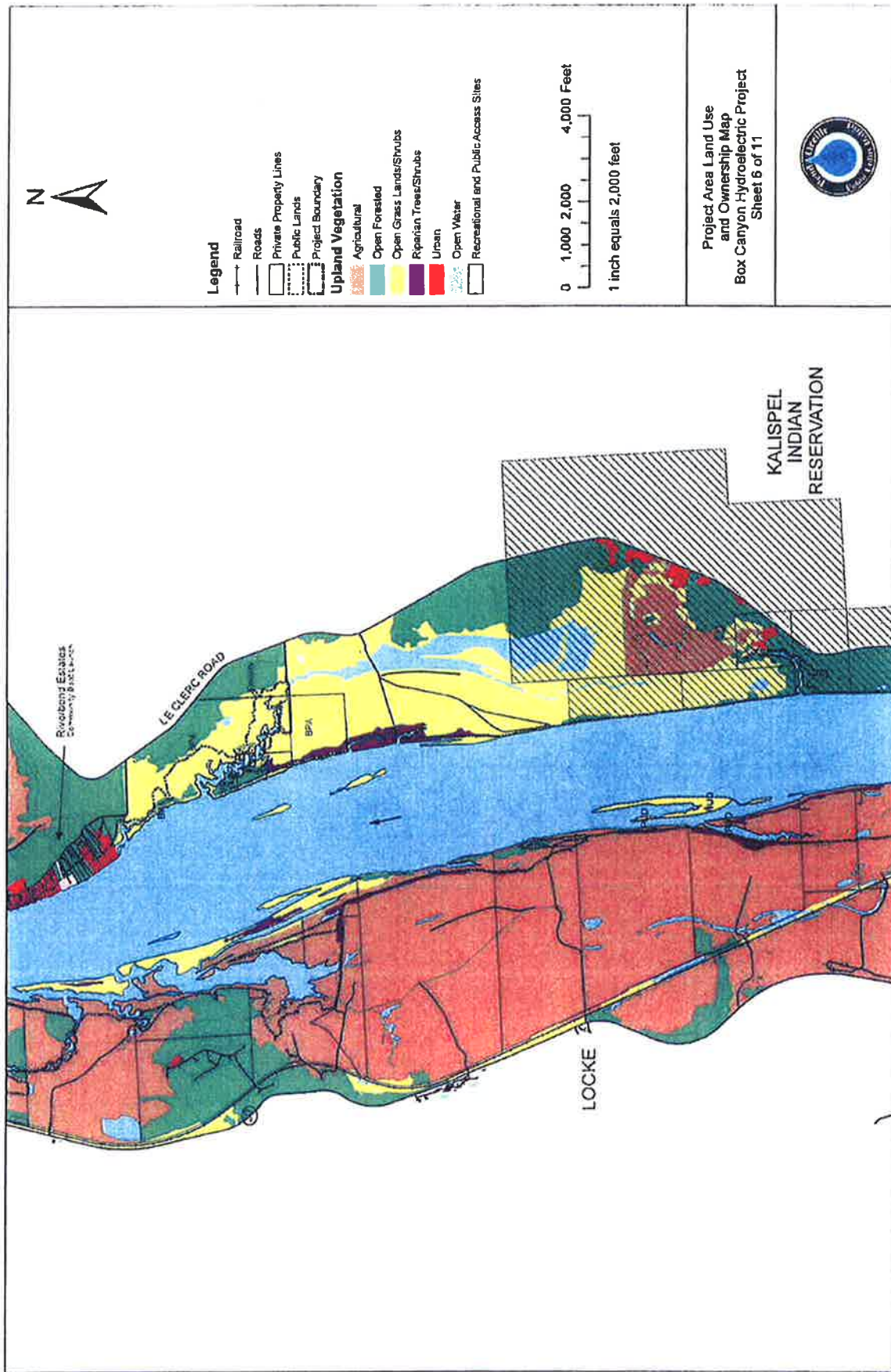
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Box Canyon Hydroelectric Project
Sheet 3 of 11

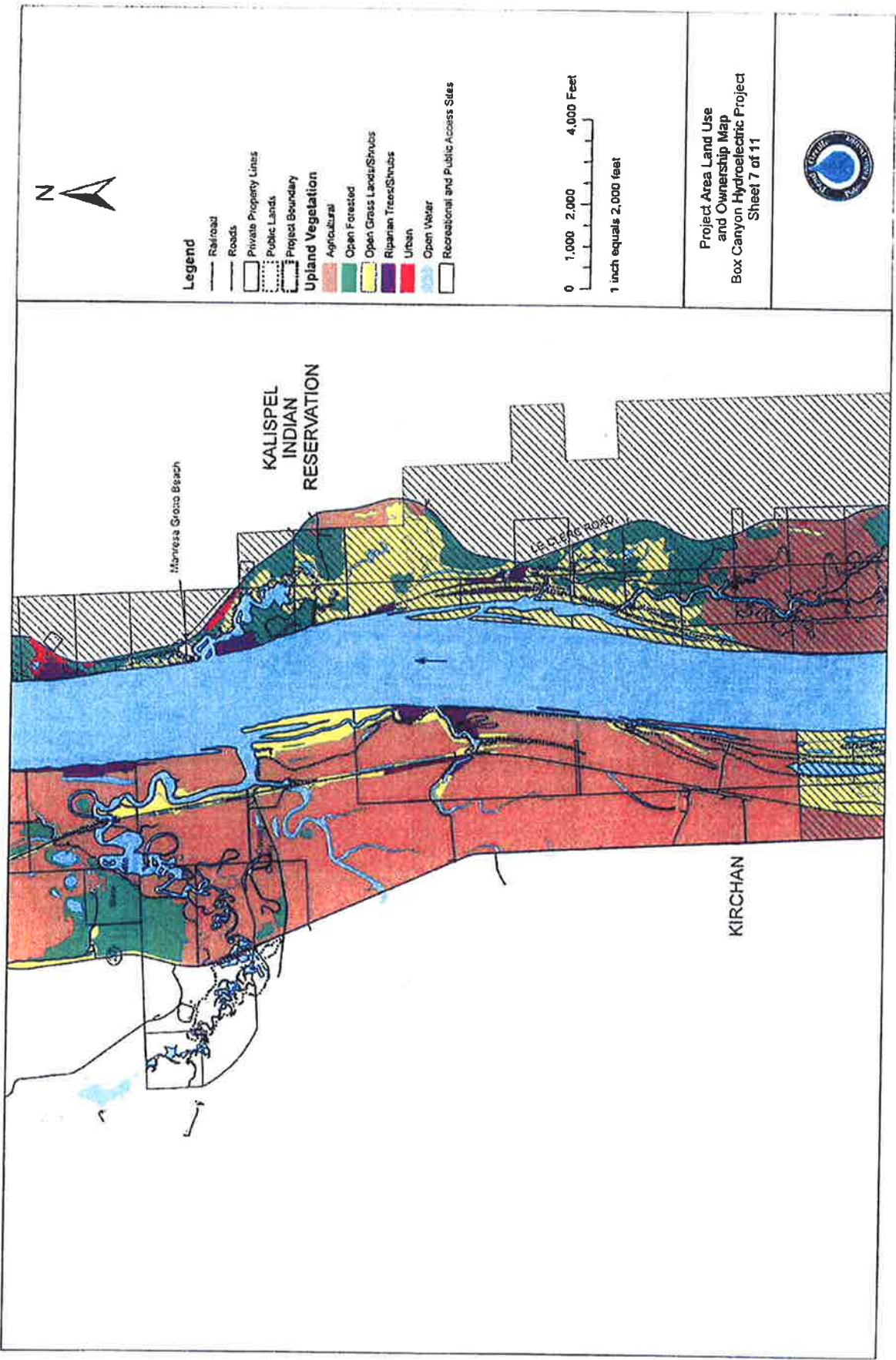


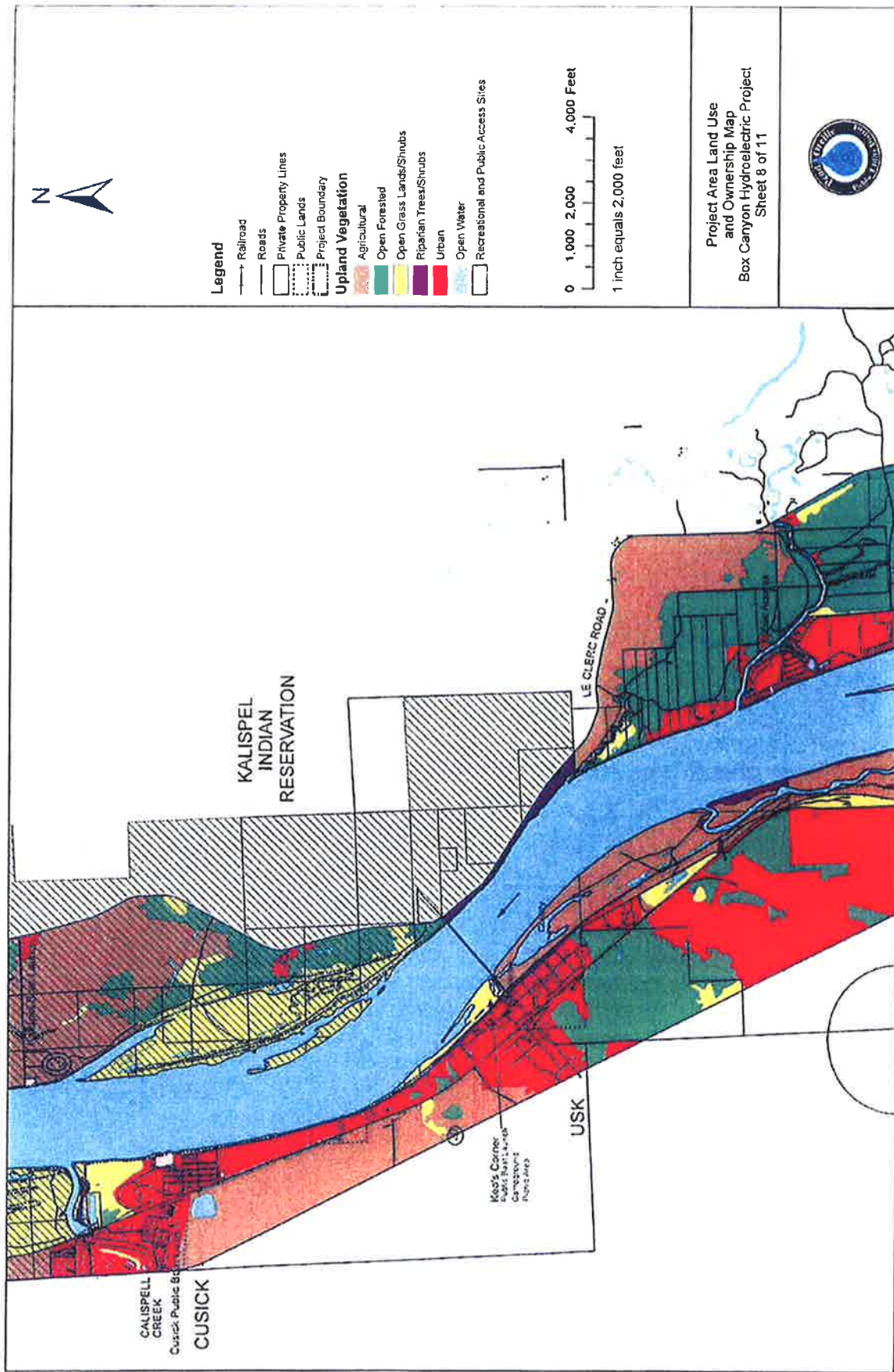


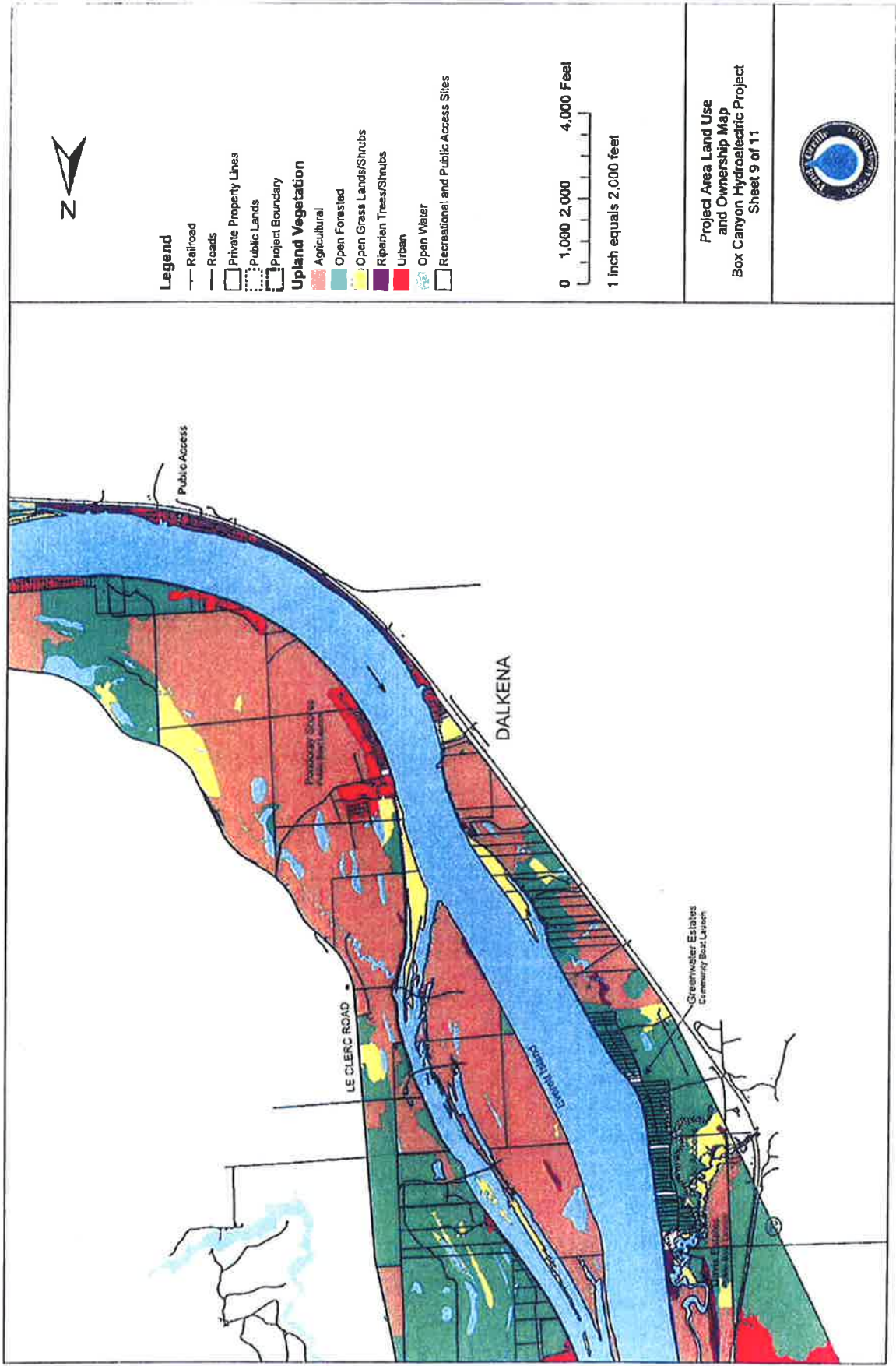
Project Area Land Use
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Box Canyon Hydroelectric Project
Sheet 4 of 11











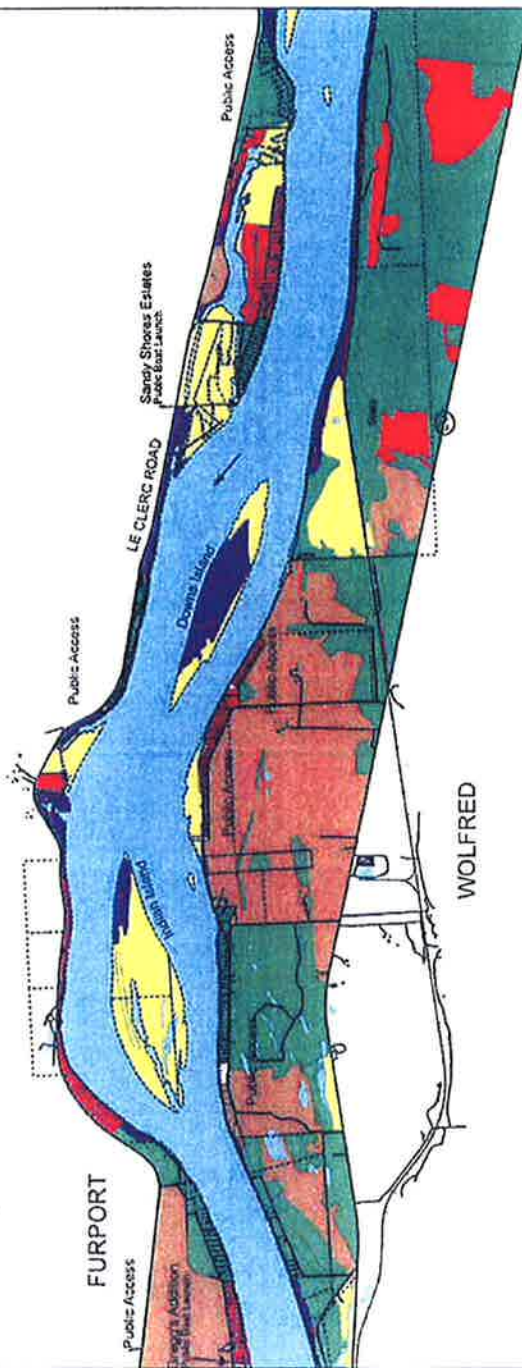
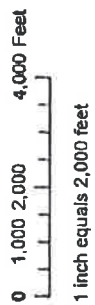
Project Area Land Use
and Ownership Map
Box Canyon Hydroelectric Project
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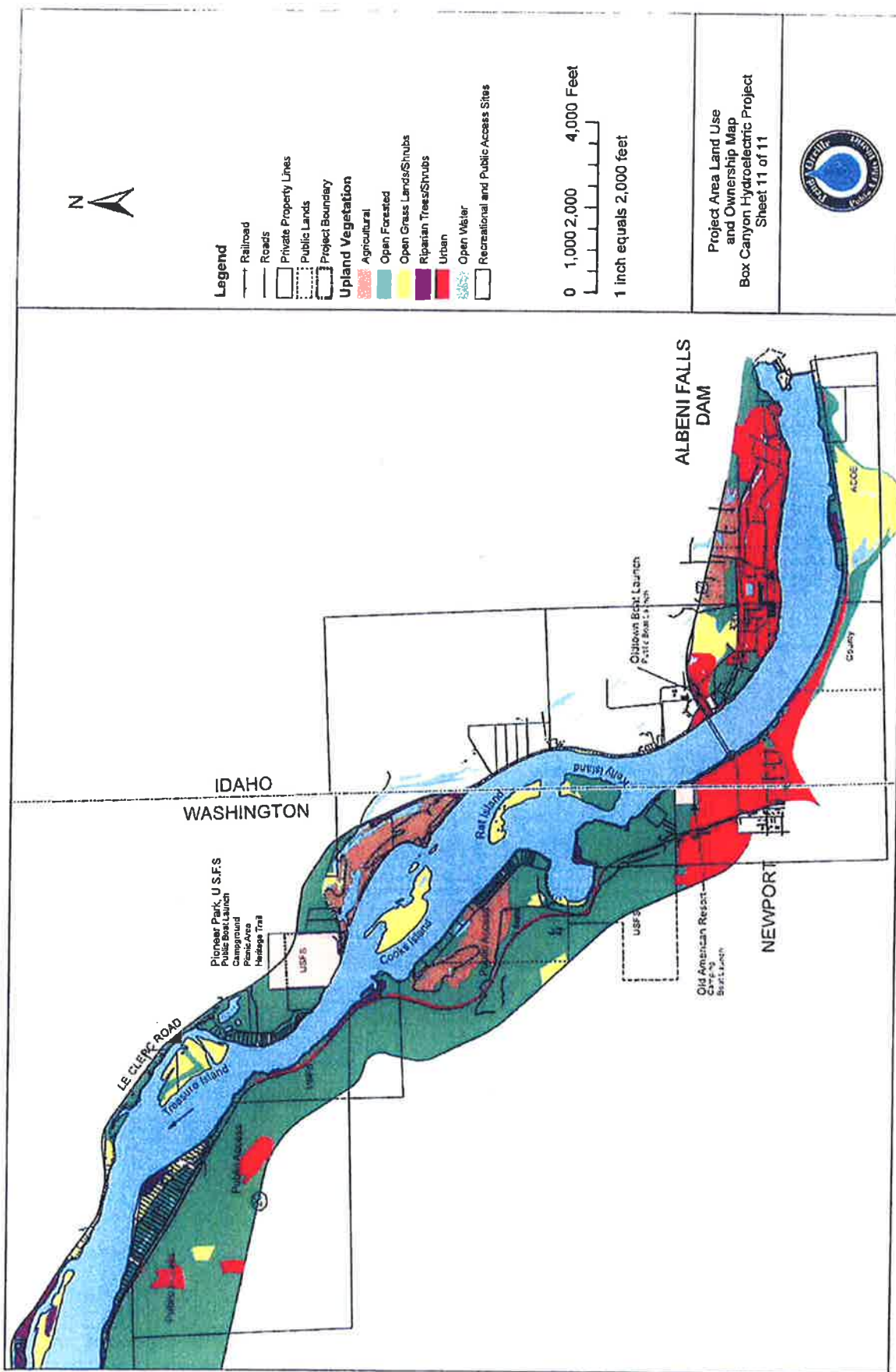
Legend

- Railroad
- Roads
- - - Private Property Lines
- ▤ Public Lands
- ▤ Project Boundary
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Project Area Land Use
and Ownership Map
Box Canyon Hydroelectric Project
Sheet 10 of 11





Project Area Land Use
and Ownership Map
Box Canyon Hydroelectric Project
Sheet 11 of 11



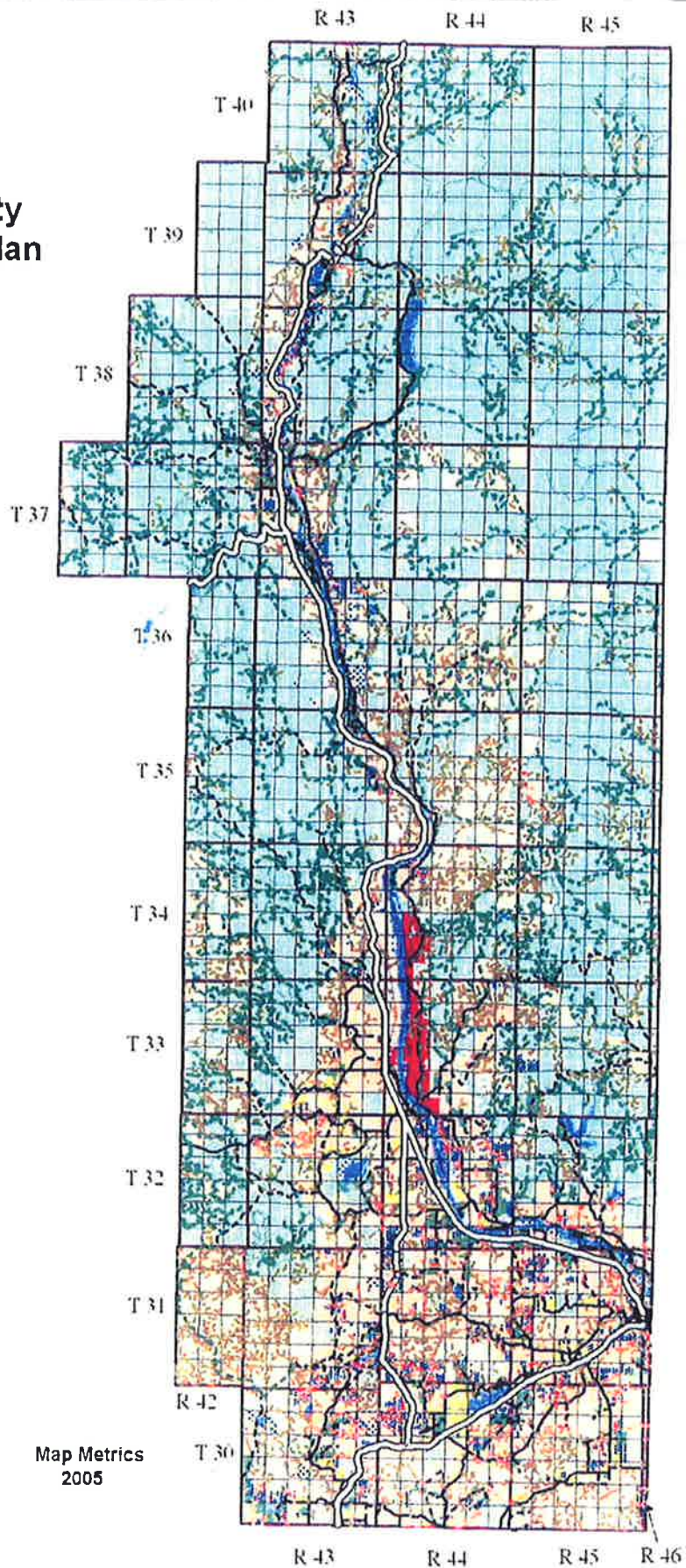
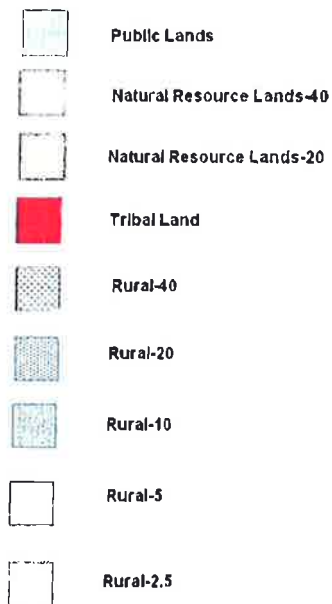
**Box Canyon Hydroelectric Project, FERC No. 2042
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Appendix B

**Pend Oreille County Comprehensive Plan
Future Land Use Map**

Pend Oreille County Comprehensive Plan 2005

Future Land Use



Map Metrics
2005

**Box Canyon Hydroelectric Project, FERC No. 2042
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Appendix C

Bonner County Zoning District Map

Bonner County Comprehensive Plan Official Projected Land Use Map (Unofficial Copy)

