

RECREATION NEEDS ASSESSMENT



ENLOE HYDROELECTRIC PROJECT (FERC PROJECT NO. 12569)

APRIL 2009



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1.0 INTRODUCTION

The Enloe Hydroelectric Project (Project) is proposed to be developed on the Similkameen River, a major tributary of the Okanogan River, approximately 3.5 miles northwest of Oroville, Washington. The Public Utility District No. 1 of Okanogan County (District) submitted an application on August 22, 2008 to the Federal Energy Regulatory Commission (FERC) to license the Project.

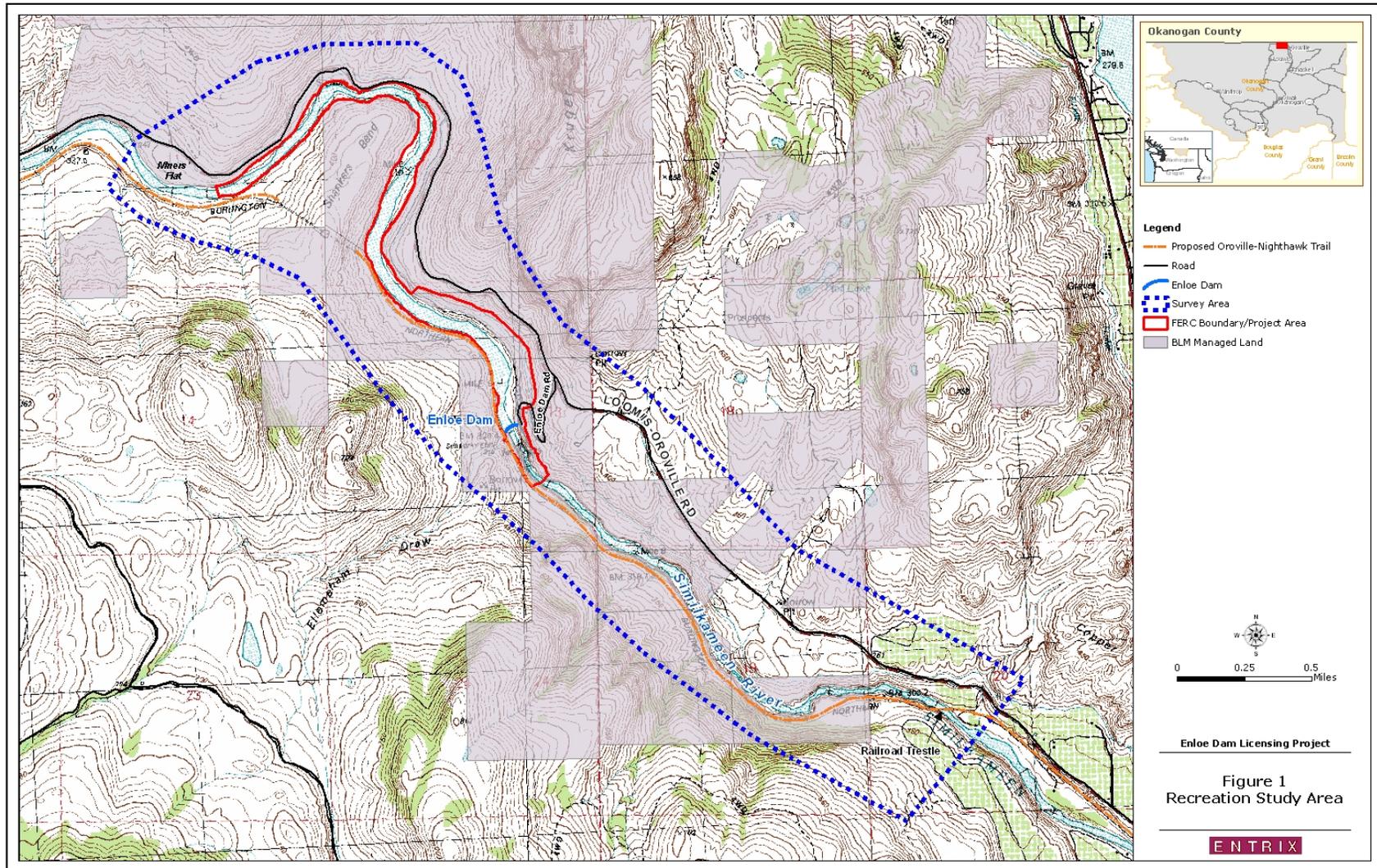
The Project Area includes approximately 2.4 miles of the Similkameen River and approximately 36 acres of land on both river banks (Figure 1). The proposed Project Boundary is generally defined by the 1,055 foot elevation contour, which encompasses the dam, the reservoir, access roads, and a short segment (0.25 mile) of the river downstream from the dam. Most of the land within this Project Area is publicly owned and managed by the Bureau of Land Management (BLM). The site has not been historically developed or managed by any agency or unit of local government to provide recreation. Although it affords no developed recreational facilities, existing unimproved roads access the proposed Project site and informal recreation has been established by use, including primitive parking, trails, shoreline camping, and boat launch access along the east shore of the Enloe Dam reservoir.

As part of the Traditional Licensing Process, FERC allows resource agencies, Tribes, or persons to submit requests for studies during the 60-day period following the filing of a hydropower license [(18 C.F.R. 4.32(b)(7)]. The District received five letters during the public comment period requesting additional recreation-related studies (Appendix A), including a recreation needs assessment (RNA). In its response to study requests filed with the FERC on November 25, 2008, the District agreed to perform a RNA.

1.1 PRE-LICENSE CONSULTATION & STUDIES

The District consulted with key resource agencies and stakeholder groups to address recreation related issues throughout the preparation and review of the hydropower license application. A summary of recreation-related consultation that occurred between January 2006 and February 2009 is presented below.

The District circulated an Initial Consultation Document (ICD) on July 21, 2005, and notified FERC of its intent to prepare and submit an application for a license under the Traditional Licensing Process. The ICD identified recreation among the key topics to be addressed. Consultation began with the Initial Consultation Meeting (ICM) held November 9, 2005, and continued through early 2006 in response to comments received on the ICD and at the ICM. In response, the District agreed to undertake a survey of recreation users in the Project vicinity.



The Enloe recreation visitor intercept survey was completed during the 2006 recreation season and used to prepare the Recreational Resources Report that was included as Exhibit E.7 in the District's Final License Application. This RNA is based on the outcomes of that survey, which characterized the demographics, points of origin, periods of use, recreation activities, and satisfactions of recreation visitors using the Enloe site. These data provide a baseline establishing current use as a basis for assessing the recreational impacts of the Enloe project and projecting future recreational use.

Expressions of interest in recreational resources at the Project site throughout the period leading up to the preparation of the Draft License Application (DLA, issued November 7, 2007) was almost entirely limited to the underlying landowner, the Bureau of Land Management (BLM). Based on consultation with the BLM, the DLA proposed 14 protection, mitigation and enhancement (PM&E) measures intended to create, preserve or enhance recreational opportunities at the Project site. As part of the FLA filing (and one of its proposed PM&Es), the District committed to prepare and implement a Recreation Management Plan (RMP) that would describe in more detail proposed recreation facilities, layout, design, access, implementation, monitoring, maintenance and management (including enforcement). The District developed the RMP in collaboration with key resource agencies and stakeholders during three recreation consultation meetings held during fall and winter 2008-2009. The resulting RMP was filed with FERC February 28, 2009.

BUREAU OF LAND MANAGEMENT CONSULTATION

The District would operate the Enloe project under a Right-of-Way (ROW) Grant from the BLM. The BLM renewed the District's ROW on October 25, 2007, to expire December 31, 2011.

The District initiated early consultation with BLM in July, 2005 (including a site tour), followed up with a meeting at BLM offices in Wenatchee, WA on September 8, 2005. The District received recreation-related comments on the Initial Consultation Document (ICD) from the BLM in a letter dated December 20, 2005. Study plan scoping meetings were held in a workshop hosted at BLM offices in Wenatchee on January 3, 2006, and frequent consultation continued with BLM throughout 2006 and 2007 as the DLA was prepared, including a second workshop with BLM staff at the BLM's Wenatchee Resource Area Office on February 15, 2007. The purpose of these meetings was to provide BLM staff with updated information about the proposed facility design and the outcomes of technical studies; and to discuss matters of particular interest to the BLM, identify issues of interest to the agency, and solicit BLM staff's views about project proposals.

Following the release of the DLA, the District held a third workshop at BLM offices on January 16, 2008 (during the DLA review period), and received BLM comments on the DLA in letters dated February 1, 2008 and July 31, 2008. BLM staff also participated in

the Meeting to Resolve Disagreements held in Okanogan on April 25, 2008 and the District provided BLM staff a field tour of the Enloe site on July 1, 2008, and BLM again participated in a site tour January 15, 2009. The purpose of these meetings was to provide BLM staff an opportunity to review revised plans, maps and documents and to inspect the proposed camping/parking area near the dam.

The BLM's oral and written comments from all of these consultation events were considered in developing recreation PM&E measures and the RMP. Detailed comment responses were provided to all of BLM's written comments.

The BLM filed its study requests with FERC, dated October 31, 2008; the District's filing of November 25, 2008 responded to these and other study requests. As part of its response to FERC's additional information requests (stated in FERC's letter dated October 28, 2008), the District consulted with BLM on recreation-related AIRs and invited the BLM, as the underlying landowner, to review the full set of AIR responses. The District initiated a settlement agreement consultation process with the BLM on January 7, 2009, which is ongoing.

NATIONAL PARK SERVICE

The National Park Service (NPS) did not participate in the ICM or provide comments on the ICD. NPS was invited to but did not participate in the scoping workshops or informational workshops hosted at BLM offices in 2006-2007. NPS identified issues of concern in its letter commenting on the DLA (dated February 4, 2008) and filed study requests with the FERC (dated October 31, 2008). NPS later participated in information workshops in early 2008 and the Meeting to Resolve Disagreements held in Okanogan on April 25, 2008.

WASHINGTON STATE RECREATION AND CONSERVATION OFFICE

The RCO prepares Washington's Statewide Comprehensive Outdoor Recreation Plan (SCORP), which includes recommendations for private utilities operating non-federal hydropower projects under license from FERC. The District has communicated informally with RCO staff. The key issue raised by the RCO concerns public recreational access to lands and waters at the project. RCO staffs have been invited to Project meetings and workshops, but have not attended.

OKANOGAN COUNTY OFFICE OF PLANNING AND DEVELOPMENT

Okanogan County participated in the ICM or provided comments on the ICD. The County's recreational concerns have focused on planning and developing a proposed non-motorized multi-use trail adjacent to the Project Area (the Oroville to Nighthawk Trail, or ONT). The District has consulted with Okanogan County throughout the preparation and review of the DLA and FLA, and has briefed the Board of Okanogan County Commissioners and the County Planning Commission about the proposed Project. County staff attended information meetings hosted by the District in 2007 and

2008 for the purpose of updating and consulting with stakeholders about the proposed hydroelectric project.

The proposed trail project was also on the agenda at the District's Board of Commissioners meeting on January 30th, 2007, during which County staff provided an update on the County's plans and desire to move ahead with the project to the District Board. In addition, members of the consulting team held a consultation meeting with County staff on March 1, 2007. On October 1, 2007 the District signed a right-of-way deed with the County, providing right-of-way over the trestle and other parcels. District staff and members of the consulting team continue to communicate with County staff regarding roles and responsibilities related to the proposed trail. In November 2008 the County issued a SEPA Mitigated Determination of Non-Significance for Phase 1 of the proposed trail project.

1.2 DEVELOPMENT OF THE ENLOE RECREATION MANAGEMENT PLAN

Following the filing of the FLA with FERC in August 2008, the District engaged in a consultation and outreach process to develop the RMP. An invitation to participate in the consultation process was extended on October 13, 2008 to representatives of the BLM, the CCT, the DNR, the Greater Columbia Water Trail Coalition (GCWTC), the NPS, the Okanogan County Office of Planning and Development, the Pacific Northwest Trail Association (PNTA), the U.S. Fish and Wildlife Service (USFWS), the Washington Department of Fish and Wildlife (WDFW), the Washington Department of Ecology (Ecology), the Washington Water Trails Association (WWTA), and the Wenatchee Valley Museum and Cultural Center, and to grazing lessees who use the Project Area.

Three consultation meetings were held (October 27, 2008; December 9, 2008; and January 13, 2009). At the first consultation meeting the District solicited concerns and proposals regarding recreation management at Enloe. On December 3, 2008, the District circulated an initial draft of the RMP which was presented at the second meeting for comment and discussion. Based on comments received on the draft RMP, the plan was revised and re-circulated for a 30-day review period ending February 12, 2009. The District revised the RMP in response to input received from stakeholders at the January 13, 2009 consultation meeting and written comments received during the 30-day review period. The Final RMP was filed with the FERC on February 27, 2009.

1.3 REQUESTS FOR ADDITIONAL RECREATION STUDIES

During the public comment period following submission of the FLA, the District received five letters requesting additional recreation studies. Letters were received from: BLM, NPS, American Rivers, the Greater Columbia Water Trail (GCWT), and Okanogan Borderlands Historical Society (Appendix A). The specific requests for additional recreation studies from each agency and organization are presented in Appendix A. The

District's response to requests for additional studies was included in a letter filed with FERC on November 25, 2008, also included in Appendix A.

1.4 PURPOSE AND ORGANIZATION OF THE RNA

This recreation needs assessment has been prepared in response to issues raised during consultation and requests for additional recreation studies received from BLM, NPS, WDNR, American Rivers, GCWT, and the Okanogan Borderlands Historical Society.

The purpose of the RNA is to assess whether the improvements proposed at the Project site, as described in the RMP, will be adequate to address long-term recreation needs at the site in light of projected growth in demand for outdoor recreation and shifts in participation rates among recreation activities. The RNA assesses needs over a 40-year period (from 2010 to 2050) based on national, state and local trends in recreation demand. The RNA also considers reasonably foreseeable development of other recreation resources within the Project Area and surrounding region that will contribute to meeting recreation needs or which may be affected by increasing demand for recreation.

The RNA was prepared using available existing data, including information collected during the 2006 Enloe recreation visitor intercept survey conducted as part of the FERC license application (FLA Survey). That information has been supplemented and confirmed through interviews of recreation managers familiar with the Project Area and surrounding region, as requested by several of the study requests filed with FERC.

The RNA is organized into the following chapters:

Chapter 2 describes existing recreation resources in and near the Project Area and summarizes the findings of the FLA Survey. The summary of the survey includes information on where survey respondents lived, the purpose of their visit and the types of recreation activities they participated in during their visit. The chapter includes a discussion of the demographic characteristics of survey respondents and how they rated the quality of their recreation experience. The chapter concludes with a listing of the recreation-related impacts associated with the Project (as described in the Final License Application) along with the proposed Protection, Mitigation and Enhancement measures intended to address those impacts.

Chapter 3 defines the geographic area used for the recreational needs assessment and describes the alternative recreation resources available within the region that are comparable to the recreation resources located within the Survey Area. The chapter includes a summary of recreation information from the Statewide Comprehensive Outdoor Recreation Plan, the 2006 Outdoor Recreation Survey and the Okanogan County Outdoor Recreation Plan.

Chapter 4 describes recreational improvements that will be implemented at the Project site following issuance of the FERC license that are directly pertinent to the RNA. These improvements, described in more detail in the RMP, include restoration and upgrade of the main access road, a new boat ramp, new campsites, picnic tables, restroom facilities, and improved trails.

Chapter 5 provides an analysis of projected recreational trends and use that are expected to affect the Project site over a 40 year period from 2010 to 2050 (the life of the FERC license). The chapter reviews existing recreation projections at the national and state levels and applies those projections to estimate the growth in demand and need for facilities at the Project site. The chapter concludes with an analysis of the capacity of the proposed recreation improvements identified in the RMP to meet projected need.

Chapter 6 summarizes the major conclusions resulting from the RNA.

Five appendices are included at the end of the report. Appendix A provides copies of letters from agencies and stakeholder organizations requesting additional recreation studies; Appendix B presents applicable FERC regulatory guidelines related to recreation; Appendix C summarizes the effects of demographic changes on recreation participation; Appendix D describes nationwide and statewide recreation projections; and Appendix E summarizes interviews with local recreation experts conducted for the RNA.

2.0 CURRENT RECREATION USE AND PROJECT IMPACTS

This chapter describes current recreation use in the Project Area vicinity and the surrounding region, and summarizes how the Enloe Project would affect that use. The first section describes existing recreational resources and use within and near the Project Area, and includes a summary of recreational survey data collected for the FLA. The second section includes a discussion of recreational activities within the surrounding region based on information from Okanogan County and interviews with local recreation experts. The final section summarizes the effects of the Project on recreation.

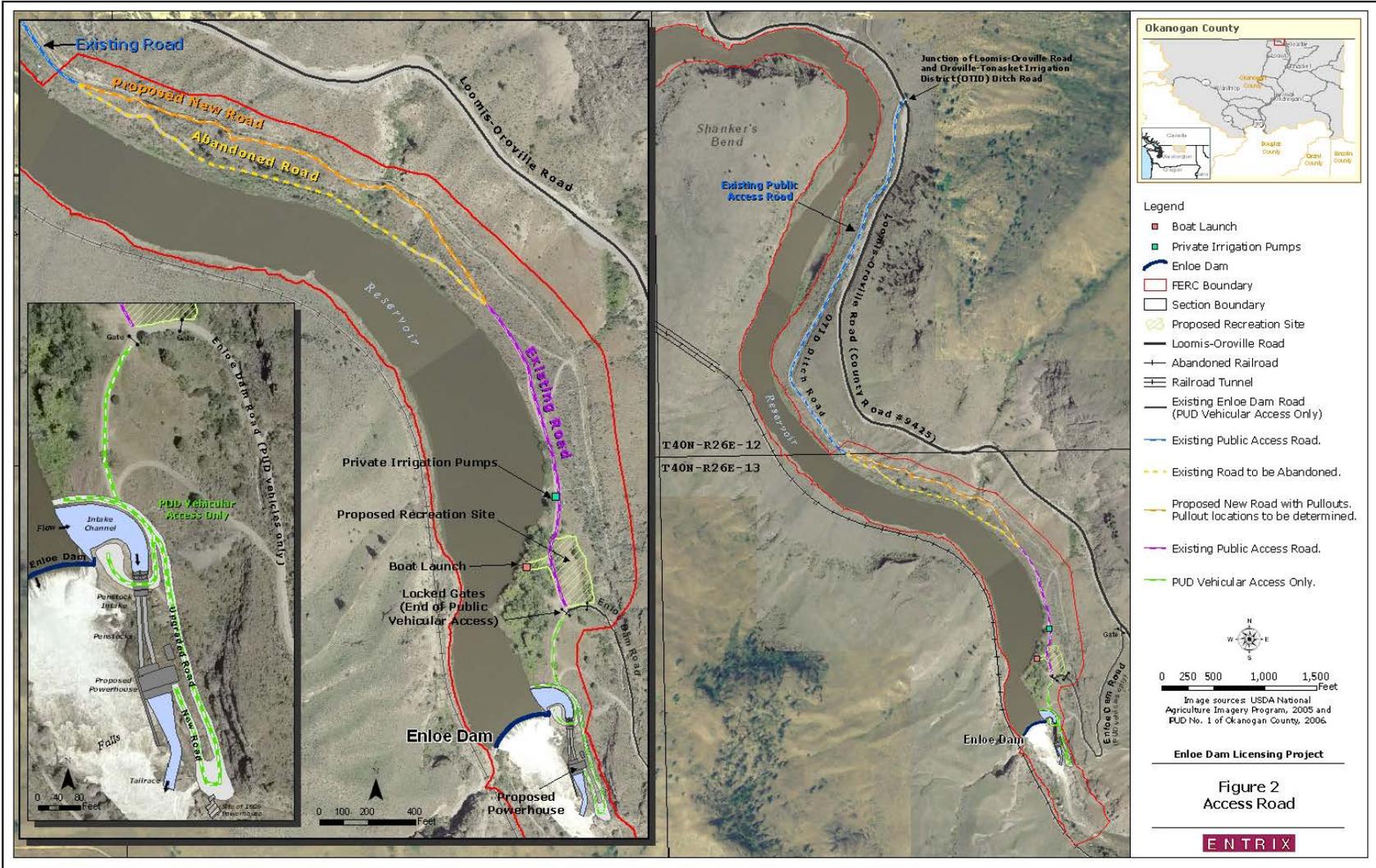
2.1 RECREATION RESOURCES IN AND NEAR THE PROJECT AREA

Recreational resource use in the Project Area is influenced by the area's remote location, difficult access and rugged terrain. Currently, there are no formal recreation facilities located at the Project site or along the Similkameen River within the Project Area.

Vehicle access to the Project Area is currently provided by two access roads that connect to the Loomis-Oroville Road upstream of the dam (Figure 2). The upstream access road is a single-lane road with steep grades in places. The road is impassable in spring and early summer when it is often inundated by spring runoff. The road remains muddy for some time after the peak spring flows. The downstream access road (Enloe Dam Road) is a very steep single-lane road with deep ruts and exposed embankments. Several additional abandoned roads and trails on the east bank provide access to areas with views of the river and to shoreline areas downstream from the dam. An unimproved trail provides foot access to the shoreline area downstream from the dam for boaters, miners, anglers and hikers.

At present, there is no public access to the west bank. Access to the west bank is limited by an old rail bed (currently gated) that crosses private land and also by steep terrain. Steep terrain also severely limits access to the portion of the Project Area downstream of the dam. Downstream from the dam and falls, the Similkameen River is confined between nearly sheer rock walls until the canyon opens just downstream from a trestle bridge approximately two miles downstream from the dam. This downstream canyon area is accessible only on foot from the east bank via game trails and existing hiking trails. The Project Area can also be accessed by boat, either floating downstream or, in higher water, using a power boat to travel upstream.

Informal primitive camping occurs in and around a small wooded area located on the east bank of the river just upstream from the dam. Visitors to this area have also created a small clearing along the shoreline that is used as a small boat put-in/take-out area.



Several additional recreation resources are located along the Similkameen River, just outside the Project Area, but within 0.5 mile of the Project site. Each recreation resource is described below:

MINERS' FLAT

Miners' Flat is located on BLM land on a large bench about 3 miles upstream from Enloe Dam. The site is not a designated use area, but is popular as an overnight camping area and staging area for gold prospecting. Miner's flat is also used occasionally as a launch site for boaters and floaters. Approximately eight fire rings are located at the site on a point that extends out into the river. Each fire ring roughly defines a single camp site. A small number of additional campsites are located in a small stand of trees just upslope from the river. Several trails also provide access to areas along the river. Access to the site is via a rough dirt road that connects to the Loomis-Oroville Road.

PACIFIC NORTHWEST TRAIL/OROVILLE TO NIGHTHAWK TRAIL

The Loomis-Oroville Road paralleling the eastern edge of the Project Area is currently a section of the Pacific Northwest Trail (PNT). The PNT is a 1,200 mile multi-use trail that starts at the continental divide in Montana and extends to Cape Alva on the Pacific Ocean (Pacific Northwest Trail Association, 2008). On March 25, 2009, the U.S. Congress passed legislation designating the PNT as the Pacific Northwest National Scenic Trail.

The segment of the PNT that currently follows the Loomis-Oroville Road is expected to be realigned to follow the abandoned Great Northern Railroad grade located along the western boundary of the Project Area. Okanogan County is currently pursuing development of a 12.5 mile multi-use trail along the railroad grade from the City of Oroville to the community of Nighthawk. The District owns the trestle bridge, located approximately two miles downstream from the dam, and on October 1, 2007 granted Okanogan County a right-of-way easement to use the bridge for a multi-use trail. The County plans to allow foot traffic to use the trestle bridge to cross the Similkameen River and access the Oroville to Nighthawk Trail (ONT) section of the PNT. This section of the Great Northern Railroad corridor has been identified as a high priority trail development area in the Okanogan County Outdoor Recreation Plan (Highlands Associates, 2004).

THE GREATER COLUMBIA WATER TRAIL

The GCWT is a 500-mile water trail running from the Canadian border to Richland, Washington. The trail serves floaters and paddlers (Greater Columbia Water Trail, 2009). The GCWT map for the Similkameen River prepared by WDFW indicates that floaters and paddlers normally take out several miles upstream from the dam and return to the river just downstream from the dam (Washington Department of Fish and Wildlife). The Greater Columbia Water Trail Steering Committee (GCWTSC) is working

with federal, state, and local partners to develop infrastructure including launch sites, directional signs, educational signs, sanitary sites, and campsites.

2.2 RECREATION USE IN AND NEAR THE PROJECT AREA

As part of the FLA recreational resource report, a visitor intercept survey was administered during the June 1 – October 15 peak recreation season in 2006. A survey team actively sought and interviewed visitors within the Survey Area shown in Figure 1. The Survey Area extends further upstream and downstream than the Project Area, reaching from Miners’ Flat upstream to the rail trestle bridge approximately 2 miles downstream from the dam. The larger Survey Area was used because of the small size of the Project Area and the fact that the Similkameen River is used for raft, canoe, and kayak trips that cover some distance. It was assumed that visitors might begin using the river upstream of the Project Area and complete their trips within the Project Area or, conversely, begin using the river within the Project Area and complete those trips outside of the Project Area. Projections of visitor use and the assessment of recreation needs and capacity in this report refer to the larger Survey Area.

POINT OF ORIGIN & PURPOSE OF VISIT

The FLA Survey asked about where recreationists live. Of the 59 survey respondents, approximately 95 percent of those that answered this question were residents of Washington State and 35 percent were from Okanogan County (Table 1). Forty percent of the respondents came from towns relatively near the site, including Oroville, Tonasket, Omak, Malott, and Republic (which is in Ferry County).

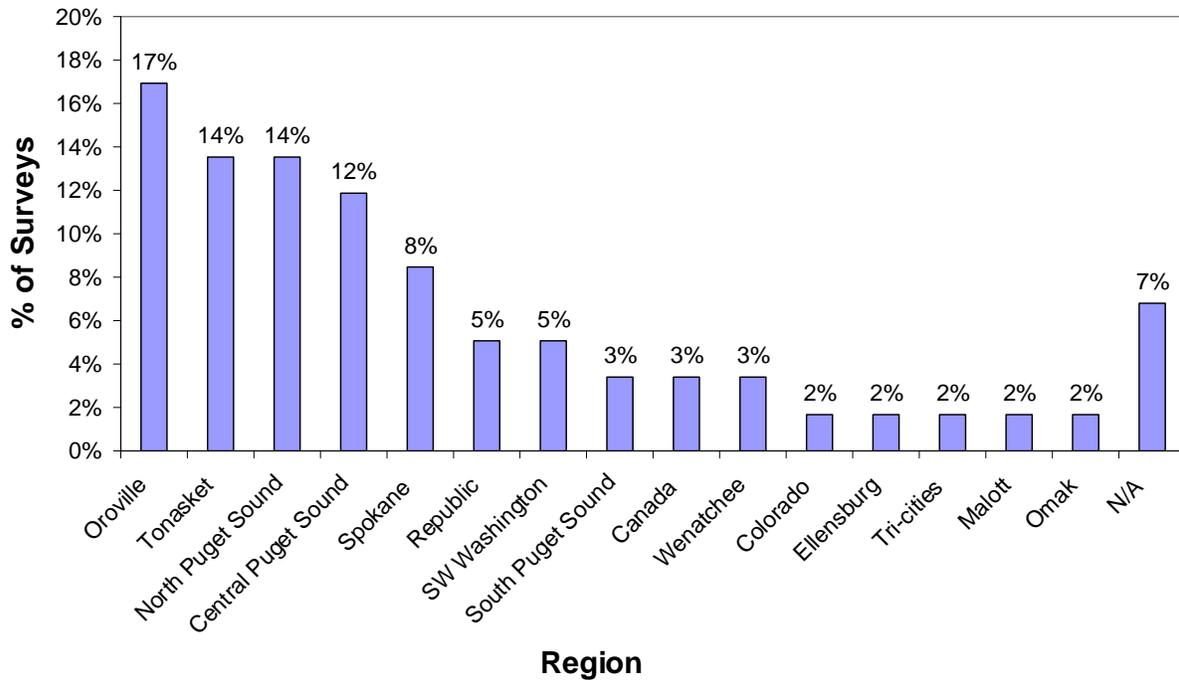
The remaining 60 percent of respondents largely originate from locations throughout eastern and western Washington. One-third of respondents came from the Puget Sound area and SW Washington. This is not surprising since western Washington represents a much larger population base than eastern Washington. An additional 15 percent originated from larger population centers in eastern Washington, including Spokane, Wenatchee, and the Tri-cities. Interestingly only three percent of those interviewed were from Canada, notwithstanding the close proximity of the site to the international border. Five percent did not answer this question.

Twenty-seven percent of respondents identified their reason for visiting the Enloe site to be related to hobby mining. An additional 24 percent visited because the site is “close to home” or because they were “local” or had property nearby. Fifteen percent visited because of the scenery or setting and an additional seven percent because they had “been here before” (indicating repeat use). The remaining responses indicated hunting, fishing, camping, regional recreational events, and stopovers incidental to their primary trip as their reason for visiting Enloe. Due to the structure of the survey, it does not clearly indicate whether the primary purpose of the respondent’s trip was to visit the Project or Survey Area, or whether the visit was made incidental to other travel or for some purpose other than outdoor recreation.

Table 1. Point of Origin

Geographic Location	Number of Surveys	Percentage
Oroville	10	17%
Tonasket	8	14%
North Puget Sound	8	14%
South Puget Sound	7	12%
Spokane	5	8%
Republic	3	5%
SW Washington	3	5%
South Puget Sound	2	3%
Canada	2	3%
Wenatchee	2	3%
Colorado	1	2%
Ellensburg	1	2%
Tri-cities	1	2%
Malott	1	2%
Omak	1	2%
NA	4	7%
Total	59	100%

Figure 3. Residential Location



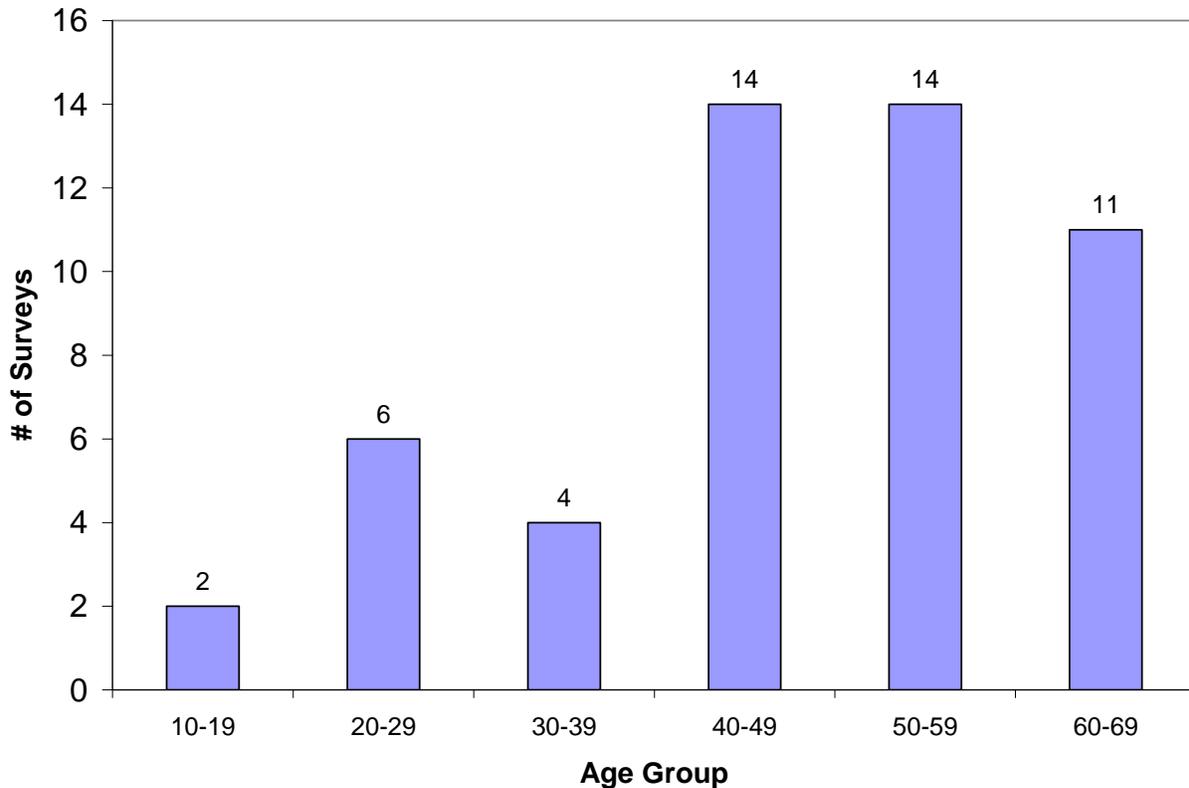
DEMOGRAPHICS

Respondents were asked about age, employment, education, and income (note that information was collected only for the respondents who completed the survey, and does not necessarily represent the demographic characteristics of all members of a particular party). Party size was one of the pieces of information obtained in the FLA Survey, how survey data reflects only the single member of the party who completed the survey.

Age

Figure 4 shows that more than 75 percent of the respondents were more than 40 years of age, and about half were older than 50. The 10-19 age group makes up a very small part of the population (2 surveys); while the two age groups between ages 20 and 40 were responsible for about 10 percent of the survey respondents. The data suggest that most visitors to the Survey Area likely participate in activities characteristic of older age groups (see discussion of participation rates by socio-demographic groups below).

Figure 4. Age Distribution



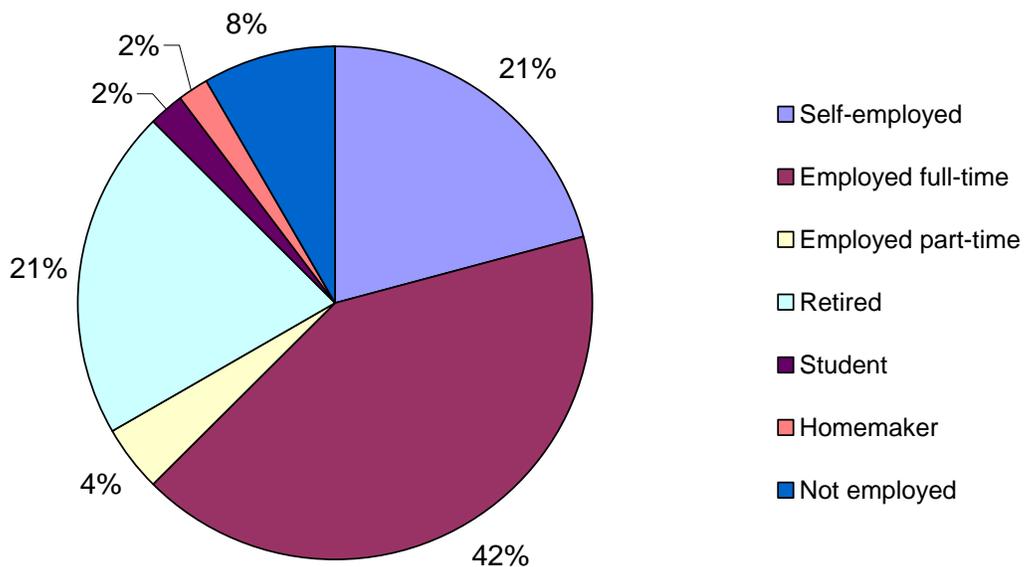
Employment

About half of the respondents were employed full-time (Table 2 and Figure 5). Few were homemakers, students, or employed part time. A significant part of the surveyed population was either self-employed or retired, and smaller portion was not employed. This is consistent with the older age profile of the user population.

Table 2. Employment Status

Employment Status	Number of Surveys	Percentage
Self-employed	10	21%
Employed full-time	20	42%
Employed part-time	2	4%
Retired	10	21%
Student	1	2%
Homemaker	1	2%
Not employed	4	8%
Total	48	100%

Figure 5. Employment Status



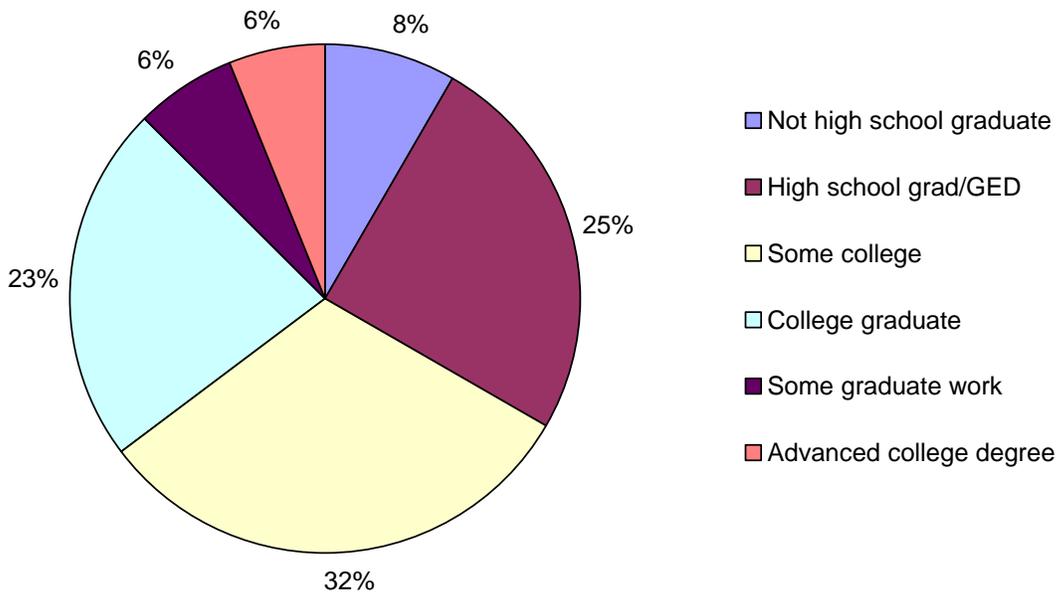
Education

More than half of those surveyed had some college education (Table 3 and Figure 6). A small portion had not completed high school and a slightly larger proportion had completed some graduate work or had an advance college degree. The remaining one quarter of the population were high school graduates.

Table 3. Education Level

Education Level	Number of Surveys	Percentage
Not high school graduate	4	8%
High school grad/GED	12	25%
Some college	15	32%
College graduate	11	23%
Some graduate work	3	6%
Advanced college degreed	3	6%
Total	48	100%

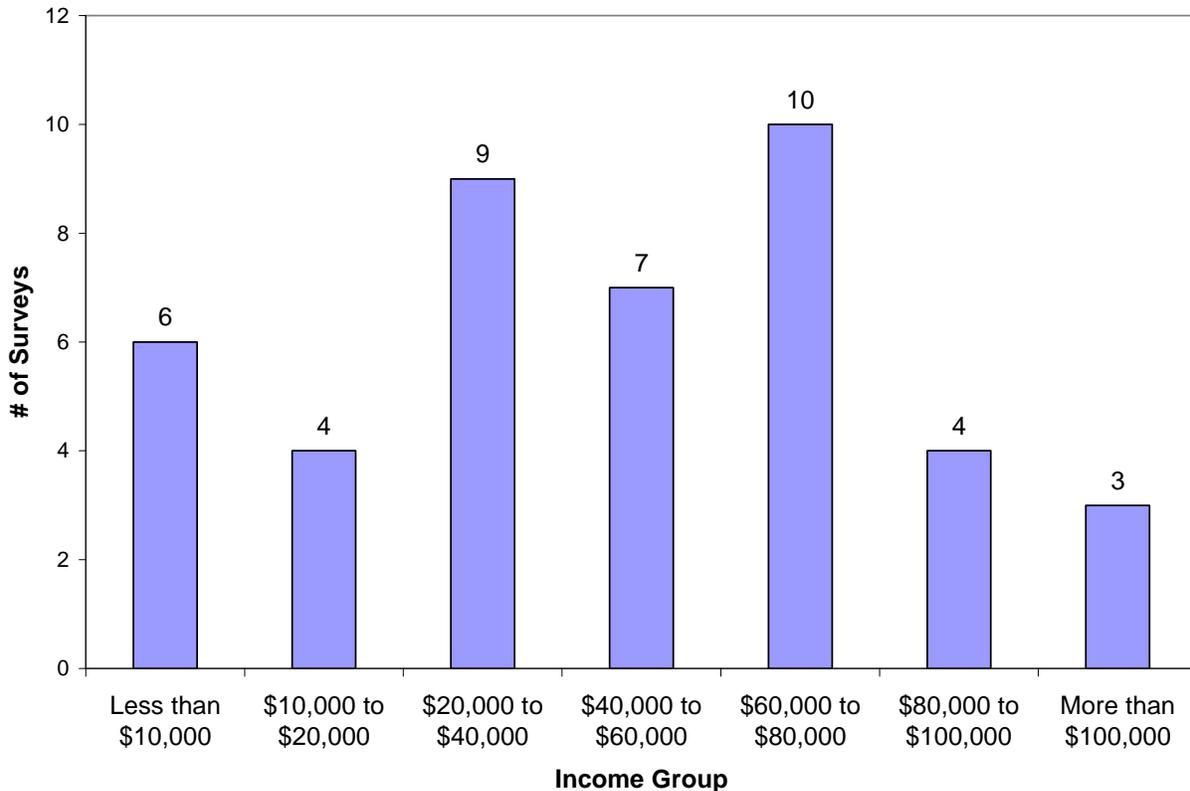
Figure 6. Education Level



Income

Figure 7 shows that the income level of the surveyed population has a normal distribution. The three income groups that encompass \$20,000 to \$80,000 of income per year represented largest number of survey respondents. The rest of the population was more evenly split among the remaining income levels.

Figure 7. Income Level



LOGISTICS OF USE

Survey data indicate that visitors arrive continuously over the course of a typical day. Arrivals curtail somewhat into the afternoon, however the distribution is not heavily skewed. Nearly 39% arrive during the 9 a.m. to noon period; 27 percent arrive between noon and 3 p.m., and 22 percent arrive between 3 p.m. and 6 p.m. About five percent arrive before 9 a.m. and seven percent after 6 p.m.

Table 4 (taken from the FLA) provides an estimate of monthly user-days during the June-October 2006 recreation season. Use peaked quickly (in July) and remained at a fairly constant level from August through October. Table 5 indicates estimated user days by type of day. It is particularly interesting that, in this area, weekend and weekday use levels were similar. Peak days (coinciding with holidays or regional recreation events) showed a marked increase in use.

The peak recreation season comprises a 150-day period from mid-May through mid-October. This definition of the recreation season has been revised to begin somewhat earlier than that defined for the FLA, based on guidance received during the interviews conducted for the RNA. The recreation season is largely defined by weather. The beginning of the season coincides with warming temperatures and increasing flows as the spring freshet attracts visitors to view the falls. The end of the season is related to the end of the summer vacation period, cooling temperatures, and low stream flows. During winter, visitation is constrained by snow cover and freezing temperatures. The access road to the recreation site will not be kept open during the winter, and off-season use of the Enloe Project site is expected to be largely limited to fall hunters and winter cross-country skiers.

Table 4. Estimate of 2006 User Days by Month

Month	Estimated User Days (Project Area)	
	#	%
June	190	13.8
July	346	25.1
August	267	19.4
September	278	20.2
October	297	21.6
TOTAL	1,378	100.00

Table 5. Estimate of User Days by Type of Day

Type of Day	Estimated User Days (Project Area)	
	#	Per day
Peak days ¹	540	14
Weekend days	190	6
Weekdays	648	6
TOTAL	1,378	

Thirty-three surveys (60 percent) reported stays in the area of longer than one day; 29 percent reported that they were camping on their trip; of these 12 percent camped at Miners' Flat, five percent camped within the Project Area; and the remainder camped outside the Survey Area.

USE ACTIVITIES

Table 6 presents the recreation activities reported by survey respondents in the Survey Area. Nearly half (46%) reported participating in more than one activity (therefore,

¹ Days coinciding with holidays or recreational events, including Fourth of July (4 days), Northwest Miner's Rally (3 days), Labor Day/Blues Festival (3 days), and first weekend of deer hunting season (2 days).

participation rates do not add to 100 percent). The most common single-activity pursuits were recreational hobby mining (gold dredging) and boating, with 12 percent and 10 percent of the survey respondents, respectively.

Major activities included mining (36%), aesthetic enjoyment (36%), camping (31%), (boating (27%), photography (20%), hiking (15%), and shore fishing (10%). Other activities included hunting, wildlife appreciation, picnicking, boat fishing, ORV use, and biking.

Table 6. Recreational Participation by Survey Respondent, Primary Recreation Activity Only (Survey Area)

Activity	Participation Rate
Mining	36%
Aesthetic Enjoyment	36%
Camping	31%
Boating	27%
Other/general recreation	22%
Photography	20%
Hiking	15%
Shore Fishing	10%
Hunting	7%
Wildlife Appreciation	6%
Picnicking	5%
Boat Fishing	2%
ORV Use	2%
Bicycling	2%

Source: Public Utility District No. 1 of Okanogan County. 2008. Final License Application: Enloe Hydroelectric Project, Exhibit E-Environmental Report: Subpart E.7.1. Technical Memorandum for Recreational Use Survey.

2.3 USER SATISFACTION

The FLA Survey also asked respondents to rate their level of satisfaction with the quality of their recreational experience. The majority of the responding visitors reported being “very satisfied” or “somewhat satisfied” with their recreational experiences in the Survey Area as shown in Table 7 below.

Table 7. Level of Visitor Satisfaction within the Survey Area

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied	N/A	Total
Number of surveys	15	7	1	0	6	29
Percentage of surveys	51.7	24.1	3.4	0	20.7	100

Note: "Percentage of surveys" refers to percentage of surveys on which the question regarding level of satisfaction was answered. Percentages may not total 100 due to rounding.

Table 8 shows the percentage of respondents who indicated a low, medium, and high need for each of the facilities and measures listed in the survey. Most visitors to the Survey Area appear to be satisfied with the existing measures and facilities. In fact, most respondents saw only a "low need" for developed camp sites, interpretive displays, safety facilities, picnic areas, parking and improved river access. Developed campsites are the facilities least desired by respondents, with 48.3% indicating a "low" need.

Less than 30 percent of survey respondents saw a "high" need for any new facilities or improvements at the Project site. Improved river access was considered a "high" need by 31 percent, followed by Porta-potties and picnic facilities (each 28%).

The bottom row of Table 8 shows the sum of "high" and "medium" responses for each facility. Porta-potties, garbage collection, and improved river access were the improvements for which more than half the visitors saw a "high" or "medium" need. Porta-potties were by far the most popular of the options, with 65.5% of responses indicating "high" or "medium" need.

Table 8. Need for Facilities (Survey Area)

Need for facilities	Developed campsites	Interpretive displays	Porta potties	Safety facilities	Garbage collection	Picnic facilities	Parking	River access
Low	48.3	37.9	20.7	37.9	27.6	37.9	41.4	34.5
Medium	20.7	31.0	37.9	27.6	31.0	20.7	27.6	20.7
High	13.8	13.8	27.6	13.8	24.1	27.6	10.3	31.0
NA	17.2	17.2	13.8	20.7	17.2	13.8	20.7	13.8
Total %	100	99.9	100	100	99.9	100	100	100
High + Medium	34.5	44.8	65.5	41.4	55.1	48.3	37.9	51.7

2.4 PROJECT IMPACTS

The Final License Application for the Project addressed 14 areas of potential recreation-related concern or impact, and proposed Protection, Mitigation and Enhancement (PM&E) Measures to address them. The PM&Es are included in the Recreational

Management Plan (RMP), which is described in Chapter 3. Key impacts and expected outcomes with the implementation of the RMP are summarized below.

ISSUE: ROAD ACCESS TO ENLOE DAM AND IMMEDIATE VICINITY

Potential Impact

The District plans to close a low-lying portion of the main access road that leads from the Loomis-Oroville Road (County Road #9425) to Enloe Dam because it provides unreliable access to the dam during periods of high water.

Expected Outcome

The expected outcome would be improved and safer access to the east side of the dam. In addition, abandonment of low lying segment of the access road would benefit the botanical and wildlife resources by providing additional habitat and removing disturbances from the adjacent habitats.

ISSUE: DISPLACEMENT OF USES DUE TO INCREASE IN INUNDATED AREA AND ACCESS RESTRICTIONS

Potential Impact

The proposed Project includes crest gates, which will raise the water level in the impoundment at certain times of year, inundating parts of an area of riparian woodland that includes an informal, user-developed hand-launch/take-out ramp.

Expected Outcome

Implementation of the RMP would enhance the recreational experience in the Project Area by improving parking, making it easier for recreators to park, load and unload recreational equipment, and providing an improved boat launch.

ISSUE: POTENTIAL CHANGES IN TYPE AND INTENSITY OF RECREATIONAL USE

Potential Impact

The proposed Project and attendant changes in accessibility of the site are likely to result in an increase in intensity of recreational use, but there is little indication that the type of recreational use would change. The increase in recreational use of the Project Area would probably be similar to the rate of population growth locally and in the State. The number of recreational users may increase as a result of development of the proposed non-motorized recreational use trail on the west bank of the Similkameen River.

Expected Outcome

Implementation of the RMP will substantially improve the quality and capacity of recreational facilities at the Enloe Project site, and is expected to be able to accommodate projected use (this is the subject of this RNA).

ISSUE: ACCESS TO THE RIVER CORRIDOR BELOW THE DAM (EAST BANK)

Potential Impact

The construction of the new power generation facilities would require replacement of portions of an abandoned road and foot trails which currently provide foot access to areas below Enloe Dam, including Similkameen Falls and the lower reaches of the Similkameen River, with a new access road. The segment of the road closest to the dam would be upgraded during construction of the proposed new power generation facilities.

Expected Outcome

The RMP will improve access to the area below the dam for recreational boaters, anglers, hikers and others participating in non-consumptive environmental recreation activities such as birdwatching or photography.

3.0 REGIONAL RECREATION ATTRACTION AND ALTERNATIVES

Recreation use pressure will be spread across the pool of reasonably comparable alternative destinations available within a reasonable travel time from one another. This chapter considers the regions from which the Enloe Project site attracts use, and reviews alternative destinations within the local area that serve the user population.

In terms of the recreational amenities it currently provides – and even in terms of those it will offer under the proposed Recreational Management Plan – the Enloe Project site is essentially a local recreation destination, comparable to small local parks, campsites, or natural areas mostly known and accessible to those with local knowledge. As such, Enloe should be expected to attract visitation primarily from the local area, for purposes consistent with a local resource – and indeed one-quarter of survey respondents stated that their reason for visiting the site was simply that it was “close to home” (or had property nearby). The major attractions of the Survey Area are, first, it is known for the opportunities it affords hobby gold miners (the primary reason given for 27% of visits), and, second, for its scenery (15%).

As discussed in Chapter 2, 40 percent of recreation use in the Survey Area is contributed from local users, and 60 percent from points of origin widely distributed around Washington State. While the statewide component of use is larger in aggregate, the points of origin which contribute the most use to the Survey Area are predominantly the local communities identified in Chapter 2. Most of this use originates within about 20 miles of the site and accounts for about 35 percent of visitors.

Beyond these local communities, the next closest points of origin are Omak and Republic, each of which is about one hour’s drive time from the site and together account for an additional seven percent of users.

As a local recreational destination, a boundary defined by a circle of approximately 20 miles in diameter, centered on the proposed Project site and truncated to the north by the Canadian border, describes the region that reasonably represents the primary pool of alternative recreational resources that may be considered by local users. A secondary region of about 60 miles in diameter, encompassing the Omak-Okanogan and Republic communities represents a broader pool of recreational alternatives that might be considered by local users.

Other visitors were widely distributed geographically, but nearly all came from within Washington State. Notwithstanding the proximity of the Canadian border, relatively few visitors originated from Canada, suggesting that when visitors take the trouble to cross the international border they generally are traveling to destinations of greater attraction.

The stated purpose of trips from users traveling outside secondary visitation region suggests that the Project Area was not their primary destination or purpose of travel. This is not surprising, considering the undeveloped nature of the site and its lack of exceptional aesthetic quality. These visits appear to be largely incidental to other primary destinations or purposes of travel. This group is unlikely to have selected the Project Area primarily because of its recreational facilities, considered either in and of themselves or in comparison to other available choices.

Recreation trends in demand and in shifting rates of participation among recreational activities were investigated for this RNA by reviewing the Statewide Comprehensive Outdoor Recreation Plan and 2006 Outdoor Recreation Survey, and the Okanogan County Outdoor Recreation Plan.

STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN & 2006 OUTDOOR RECREATION SURVEY

In June 2008 the Washington State Recreation and Conservation Office published a State Comprehensive Outdoor Recreation Plan (SCORP), titled “Defining and Measuring Success: The Role of State Government in Outdoor Recreation” (RCO 2008). The SCORP outlines the role of state and local governments in providing recreational resources, measures current recreational use, considers how success in providing recreational resources should be defined, describes recreation investments, and proposes an approach to measuring the State’s success in providing recreational resources.

The SCORP is based in part on the 2006 Recreation Survey (RCO 2007), which has been used in this RNA to develop projections for recreation visitation (see Appendix D). The 2006 Survey covers 15 major areas, including walking/hiking; sports; nature activity; picnicking; indoor community facilities; water-based recreation; sightseeing; bicycle riding; ORV riding; winter (snow/ice) activities; camping; fishing; hunting and shooting; equestrian activities; and “air activities.”

OKANOGAN COUNTY OUTDOOR RECREATION PLAN

The Okanogan County Outdoor Recreation Plan (OCORP; Okanogan County Commissioners 2004) provides information regarding recreational use and resources throughout the County. Data from the OCORP is not readily disaggregated to match the local area from which the Project site draws visitation, but it does provide information regarding local and countywide recreation resources. The OCORP serves as the Parks and Recreation Element of the Okanogan County Comprehensive Plan and provides demographic information, including population forecasts and the age distribution of county residents. It briefly discusses the recreational facilities operated, supported, and/or planned by the county.

The OCORP defines county goals for parks and recreation planning, discusses public outreach, defines recreational resources demands and needs, and presents an action

plan. Of particular interest, in 2003 Okanogan County sponsored an online recreational survey (Okanogan Recreation Survey) that was held open for a two week period. A total of 307 surveys were completed. Results indicate use of 27 local, state, and federal recreational facilities and suggest that city park facilities are visited less frequently than state, federal, and private recreational facilities. Omak, Twisp, Okanogan and Winthrop parks received the most frequent daily and weekly visitation among the twelve local parks included in the survey. The recreational activities in which respondents most frequently participated include wildlife and bird watching (66%); hiking or walking on trails (60%); pleasure drives (55%); and swimming (50%). More than 30% participated in Nordic skiing, alpine skiing, mountain biking, playgrounds, indoor play/meeting areas, picnicking, fishing and equestrian activities.

When asked to rate the need for 25 types of recreational facilities, 40 percent of respondents indicated that off-road hiking and biking trails and off-road bicycle shoulder/lanes were of the highest need. Horse trails, riding arenas, playgrounds and child play area, river/lake access sites, and nature and interpretive centers for fish and wildlife were identified by 30 percent as a high need.

The OCRP identifies action areas and ranks projects based on local need. The OCORP action plan sets priorities based on public input, and places at the top of the list the development of new trails and linkages between trails throughout the County. Ten high priority trail projects and three high priority snow park projects are identified in the OCRP, including the ONT.

ALTERNATIVE COMPARABLE RECREATION RESOURCES

The region within which the Project Area serves as an alternative primary destination appears to be best defined by the 20-mile boundary described above. This area is bounded by the Canadian border (2.6 miles to the north), the City of Tonasket (about 20 miles to the south), and the rural areas an equivalent distance to the east and west. The supply and capacity of recreational facilities within this local service area was considered in assessing the extent to which current and projected future recreation needs are being and will be adequately served.

Table 9 provides a list of the recreation resources within this 20 mile area surrounding the Project Site. The more notable recreation resources within the service area are further described following the table.

Table 9. Recreation Sites Located within Okanogan County and in Close Proximity to the Project Area

Recreation Site (& ownership)	Amenities
Campgrounds	
Osoyoos State Park (presently closed by the State)	Campgrounds, two boat ramps, dock, volleyball court, and horseshoe pits
Bonaparte Campground (USFS)	Lake setting, fishing platform, camping, boat launch
Cold Creek Campground (WDNR)	High elevation camp (6200 ft.), three hundred foot trail to viewpoint, no power or water.
Cutchie #3 (WDFW)	Primitive camping and boat launch
Similkameen Camp	Primitive camping
Palmer Lake Campground (WDNR)	Campsites, no power or water, Beach access, hand boat launch.
Split Rock Recreation Site (BLM)	Boat launch, toilets, day use only.
Chopaka Lake Campground	Eight campsites, picnic tables, fire pits, toilets, water pump, fishing platform near campsite.
Highlands Fire Camp (WDNR)	Primitive camping and fire pits
Toats Junction (WDNR)	Camping along a forest stream. Primarily used as a hunting camp in fall, no power or water.
Toats Coulee (WDNR)	Streamside camping in a fir forest. Primarily used as a hunting camp in fall, no power or water.
Stage Stop At Sully's	Camping, toilets
South Fork Junction Campground	Camping, toilets
Daisy Campground (BLM)	Camping
Spectacle Lake Campground (WDFW)	396 acres, fishing, restroom, motorized boating, and boat launch
Lakes	
Sidley Lake (WDFW)	Camping and boat launch.
Forde Lake (WDFW)	From Loomis, take Broadway St (which becomes Sinlahekin Rd) south approx. 6.75 miles to Public Fishing/Forde Lake Fishing sign. Boat launch on left and parking and camping on both right and left.
Palmer Lake (WDNR)	2,100 acres, 10 miles of shoreline, fishing, campgrounds, restrooms, and motorized boating
Renn Lake	Fishing
Osoyoos Lake (State of WA)	5,800 acres, 30 miles of shoreline, kayak and jet ski rentals, fishing, and motorized boating
The Salt Lakes	Fishing
Stadium Lake	Fishing
Spectacle Lake (WDFW)	396 acres, fishing, restroom, motorized boating, and boat

	launch
Chopaka Lake (BLM)	146 acres, primitive camping, and boat launch
Wannacut Lake (WDFW)	Restrooms and boat launch.
Whitestone Lake (WDFW)	Gravel parking area and boat launch. Primitive campsites.
Blue Lake (WDFW)	Gravel parking area and boat launch. Primitive campsites.
Lenton Lake	Fishing
City Parks	
Tonasket History Park (City of Tonasket, Okanogan County Historical Society)	Restrooms, picnic tables, and a pool
Chief Tonasket Park	Boat launch, covered picnic tables, restrooms, and a riverfront trail
Oroville Deep Bay Park (City of Oroville)	Boat ramp, restrooms, picnic areas, swimming
Boat Launches	
Driscoll Island (WDFW)	No Facilities
Cutchie #4 (WDFW)	Canoe pullout spot accessible only by the Similkameen River
Split Rock boat launch (BLM)	Boat ramp
Deep Bay Park (City of Oroville)	Boat ramp, restrooms, picnic areas, swimming
Riverside Boat Launch (WDFW)	Fishing, swimming, fire pits, water, and shower
Chief Tonasket Park (City of Tonasket)	Boat ramp
Lind Coulee - Bridge Site West (WDFW)	Camping, fishing, hunting, boat launch.
National Forest & Wilderness Areas	
Deer Park	Hiking
Scotch Creek Wildlife Area (WDFW)	Area primarily managed for wildlife habitat. Some primitive, undeveloped campsites.
Sinlahekin Wildlife Area (WDFW)	14,000 acres managed for wildlife habitat and wildlife-oriented recreation. Area has 5 lakes, all undeveloped, natural area; primitive campsites, some with the accessible toilets and cooking grills. Seasonal wildlife viewing possible from car.
Loomis State Forest (WDNR)	25,000 acres, hiking trails
Okanagan National Forest (USFS)	26 trailheads and 39 developed campsites
Chopaka Mountain Wilderness Area (BLM)	Hiking, horseback riding, and fishing within 5,518 acre area
Trails	
Chopaka Mountain Trail	5 hiking miles, 548 feet elevation difference
Coxit Creek Trail	3.8 hiking miles, 2089 feet elevation difference
North Fork Toats Creek Trail	5.4 hiking miles, 1728 feet elevation difference

Sarsapkin Creek Trail	3 hiking miles, 1607 feet elevation difference
South Fork Trail	9.7 hiking miles, 2192 feet elevation difference
Albert Camp Trail	15.2 hiking miles, 3696 feet elevation difference
Deer Park Trail	5.2 hiking miles, 605 feet elevation difference
Angel Pass Trail	1.3 hiking miles, 930 feet elevation difference
Clutch Trail	8 hiking miles, 2056 feet elevation difference
Windy Trail	9.2 hiking miles, 2851 feet elevation difference

The closest developed campground to the Project Area is approximately four miles east of the Project in Osoyoos Lake Veterans' Memorial State Park. In addition to campgrounds, the park provides two boat ramps, a dock, and various facilities for sports and games.

WDFW operates two river access sites on the Similkameen River upstream from the Project Area; Cutchie #4 and Cutchie #3. Cutchie #4 is approximately seven miles west of Oroville on the Loomis-Oroville Road. It is accessible only from the river, due to private land surrounding the site, and has no developed facilities. Cutchie #3 site located 1.5 miles south of Nighthawk on the Loomis-Oroville Road. Although the site has a rough boat launch, it has no developed facilities.

Similkameen Camp is a primitive BLM campground approximately located 2.5 miles upstream from the Project Area. The site is often used by boaters and floaters and BLM estimates the site receives 1,000 visitor-days of use per year.

A WDNR campground is located near the north end of Palmer Lake. Near the south end of the lake, the BLM maintains a day use recreation area, including a boat launch. Fishing is the primary recreational activity on Palmer Lake. The lake is stocked and managed as a mixed-species fishery. Hunting, camping, swimming, and hiking are also popular in the area.

Toats Coulee Road, near the south end of the lake, provides access to Chopaka Lake, a popular fly-fishing lake and site of a BLM campground and boat launch. Toats Coulee Road is also the access route for USFS and WDNR forest lands, including the Iron Gate trailhead, entry point for popular wilderness hikes, and for the Chopaka Mountain Wilderness Study Area (WSA).

Two WDFW water access sites are located along the Similkameen River north and west of Palmer Lake between the river and Chopaka Road. Fly fishing is a popular recreational activity in the area.

Chief Tonasket Park in the community of Tonasket offers a boat launch, covered picnic tables, restrooms, and a riverfront trail.

The Okanogan National Forest encompasses 1.53 million acres in the county and there are 26 trailheads and 39 developed campsites within its boundaries.

4.0 PROPOSED RECREATION IMPROVEMENTS WITHIN THE PROJECT AREA

The Enloe Recreation Management Plan (RMP) identifies proposed recreational improvements to be implemented at the Project site following issuance of the FERC license. These recreation improvements, included as PM&E measures in the Final License Application, address the recreation-related project impacts described in Chapter 2 and provide a considerable net benefit beyond the mitigation of impacts. These improvements were refined in several consultation meetings with a stakeholder group during preparation of the RMP, as described in Chapter 1. Those recreation improvements directly pertinent to the RNA are described below. These include: restoration and upgrade of the main access road, a new boat ramp, new campsites, picnic tables, restroom facilities, and an improved trail to enhance public access to areas downstream from the dam.

4.1 ACCESS ROAD IMPROVEMENTS

The District will implement proposed PM&E measure BOTA-03 by restoring the one-lane access road (i.e. Oroville-Tonasket Irrigation District Road) that extends approximately 1.3 miles from the Loomis-Oroville Road (County Road #9425) to the dam (Figure 2). The District will improve the road surface by smoothing out bumps, filling potholes and adding a new layer of crushed rock, where required. A 2,000 foot long segment of the existing access road located along the east bank of the impoundment will be relocated approximately 200 feet up slope to protect wetlands, reduce impacts to cultural resources, and make the road more accessible during spring, summer and fall months. The new roadway segment will follow the alignment of an old irrigation canal road.

Because the restored access road will remain a one-lane road (approximately 14 feet wide in most places), vehicle turnouts will be constructed in appropriate locations to allow vehicles traveling in opposite directions to safely pass one another. The number and spacing of vehicle turnouts will be determined during the design phase, based on standard safety and sight distance requirements. If an existing bridge is used to cross an abandoned irrigation canal or natural draw, the bridge will be evaluated to ensure that it can safely accommodate anticipated loads. Additional design details on the access road and any proposed crossing structures will be provided to the BLM and other recreation stakeholders when available.

During winter, the access road will not be regularly maintained or kept free of snow. However, the District may clear the road periodically to access project facilities for maintenance and operations purposes.

4.2 BOAT RAMP

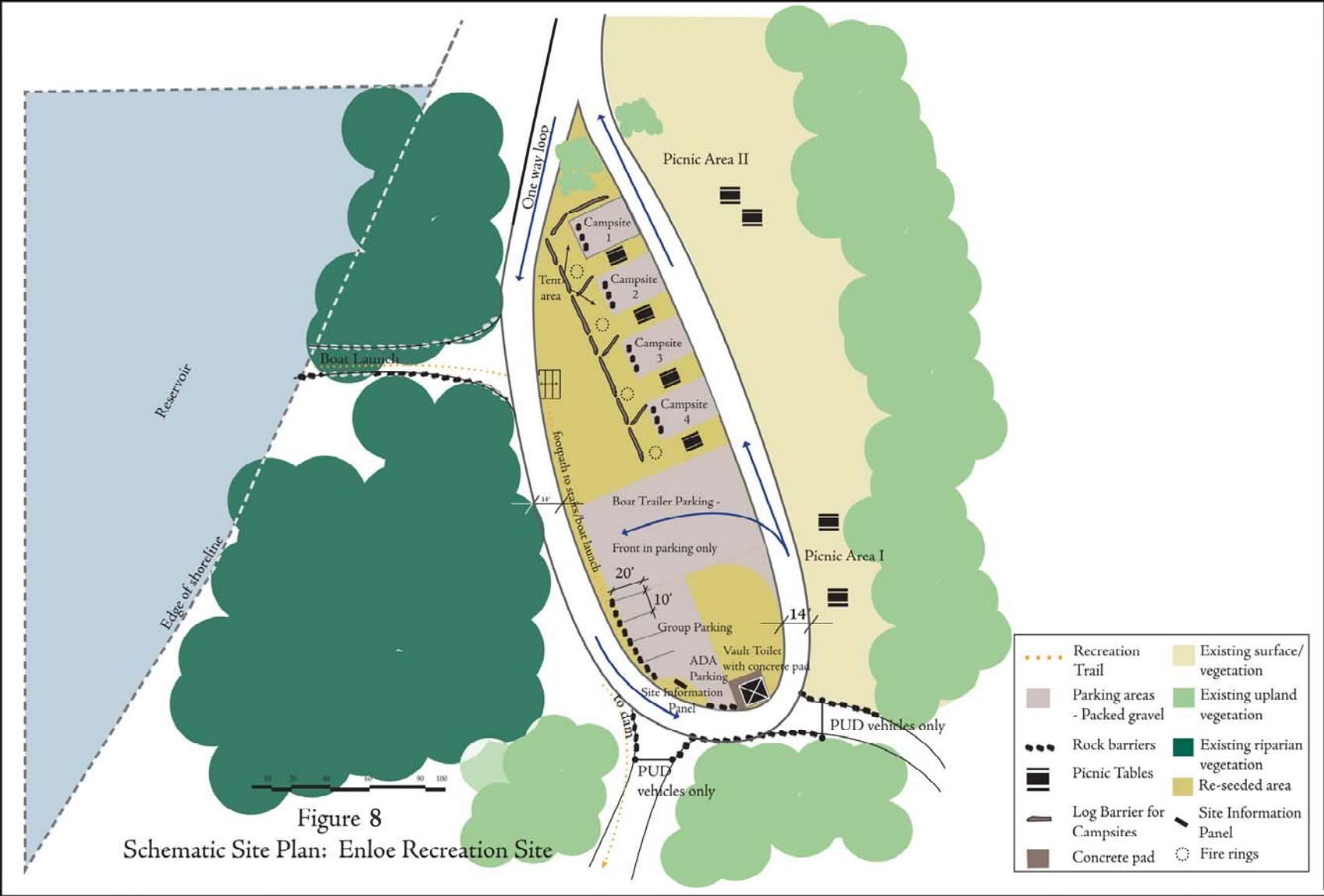
The District will implement proposed PM&E measure REC-04 by installing a new boat launch at the Project site in approximately the same location as the primitive put-in/take-out area now used by recreational boaters (Figure 8). The new ramp will improve boat put-in, take-out and provide access to camping sites, picnic areas, restrooms and parking at the Project site. The boat launch will be accessed from a loop road at a new recreation site (described below). The road to the boat ramp will be approximately 14 feet wide and surfaced with gravel. The road will be accessible to both vehicles with trailers and individuals carrying watercraft on foot. A vehicle and trailer parking area will be located a few yards away in the new recreation site. These improvements will facilitate access for current and future users and will enhance efforts to improve the Greater Columbia River Water Trail for the benefit of its future users.

4.3 RECREATION SITE

The District will implement Proposed PM&E measures REC-08, REC-09 and REC-10 by developing a new 1-acre recreation site near the dam that includes parking, camp sites, picnic area, vault toilet and other recreation amenities (Figure 8). The recreation site is located in a relatively flat area next to the riparian woodland just upstream from the dam. The design concept for the recreation site is based on a one-way loop road that will circulate traffic in a counter clock-wise direction. The loop road will be approximately 14 feet wide and will be surfaced with gravel. A gravel surfaced parking area able to accommodate up to five standard vehicles and two vehicles with trailers will be located on the southern half of the site. Because space is limited, vehicles with boat trailers will be required to pull-in and back-out of the parking area.

The District will install picnic tables in two areas on the east side of the new recreation site near the parking area. The areas will be designated for day-use picnicking, although overnight campers will be able to use the picnic facilities as well. The first site (Picnic Area I) is located in the southeast corner of the recreation site outside of the loop road. This area is slightly wooded providing natural shade and views toward the dam. Two tables will be spaced approximately 25 to 50 feet from each other to provide privacy. The second picnic area (Picnic Area II) will be located in the northeast corner on the outside of the loop road. This area will serve both day users and overnight campers. This site provides overlooking views of the placid water of the reservoir. Two picnic tables will be clustered together to accommodate larger groups. Parking for both picnic areas will be provided in the parking area located at the south end of the recreation site inside the loop road.

The District will also develop four primitive campsites near the parking and picnic areas, described above. Each campsite will be approximately 25 feet wide and 50 feet long. The campsites provide for pull-in parking and include ample space to accommodate a tent site. Rock barriers will be installed to serve as curbstops and to define the boundaries of individual campsites. A picnic table and steel fire ring will be provided at



each campsite. Campsites will be available on a first-come-first serve basis and overnight stays will be limited to a maximum number of 14 consecutive stays.

4.4 ACCESS DOWNSTREAM FROM THE DAM

The District will implement PM&E measure REC-02 by providing public access to the river downstream from the dam via an improved access road between the proposed recreation site and the new powerhouse (Figure 9). The road section will be approximately 14 feet and the surface will be surfaced with crushed rock. The District will allow hikers and visitors portaging watercraft or recreational mining equipment (on foot) to use the improved access road to access areas downstream from the dam.

The District will also improve approximately 350 feet of the existing trail located south of the improved access road. The trail will be widened to approximately 6 feet, leveled, smoothed and surfaced with gravel to provide barrier free access to all users. The District will also make limited improvements to an existing footpath that extends between the improved trail and the edge of the river by removing obstacles and adding signs to increase its visibility and enhance public safety.

In the past a suspension bridge existed downstream from the dam that allowed workers to access the old powerhouse on the west bank of the Similkameen River. Requests filed with FERC and interviews conducted for the RNA indicate interest in restoring the suspension bridge downstream from the dam for hiker access to the western bank. The Enloe Project does not extend upland on the west bank of the Similkameen River and has no recreational impacts on the west bank. At this time, the District is not planning to restore public access to the west bank of the river downstream from the dam near the old powerhouse. However, the District is receptive to proposals to restore the footbridge across river if a proponent and source of funding were to come forward. The District will continue to collaborate with federal and state agencies and local historical societies to explore funding sources for restoring the footbridge.

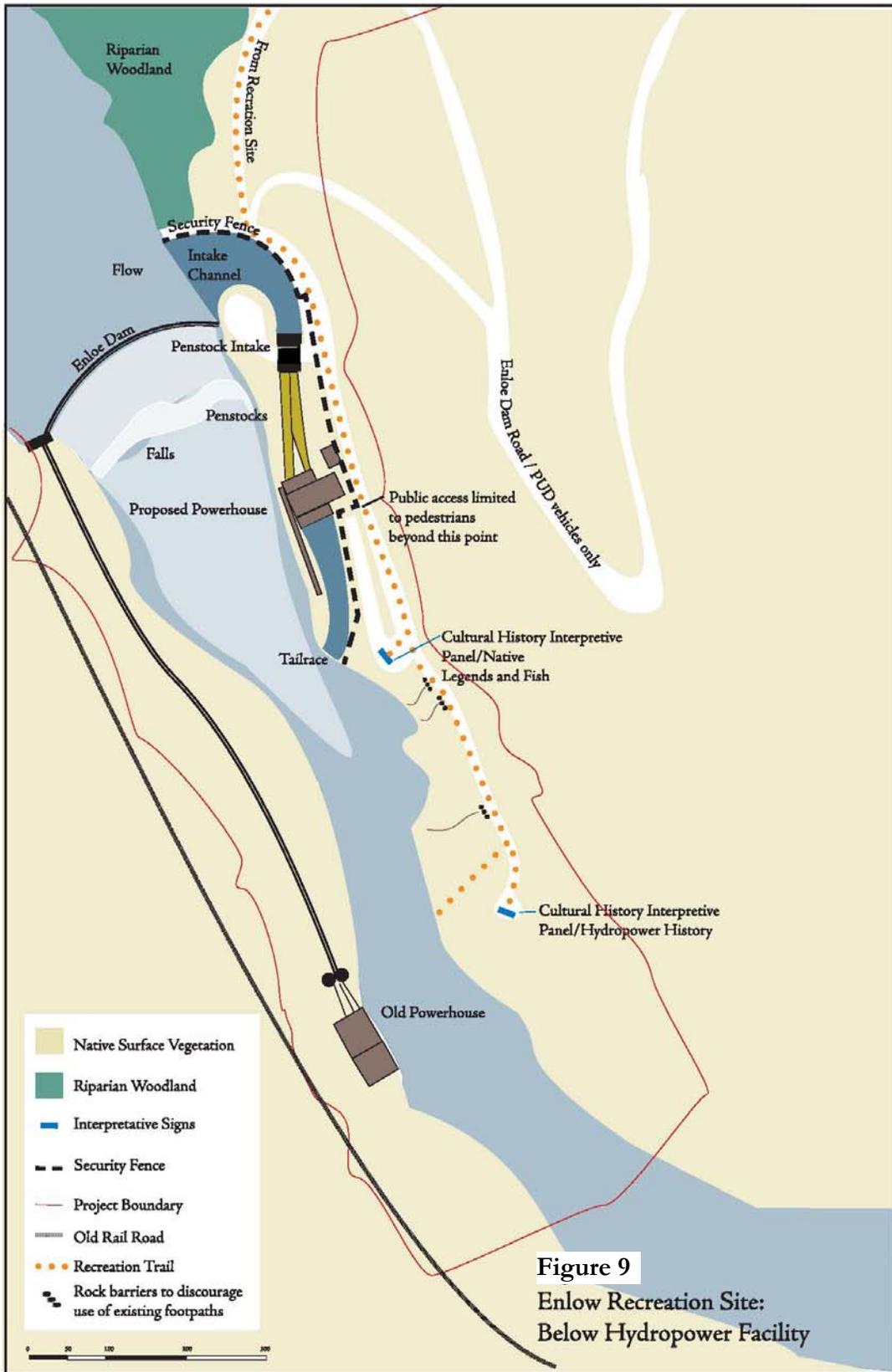
4.5 SCHEDULE AND PHASING

Figure 10 is a preliminary construction schedule showing the sequence of principal activities through the engineering design and construction phases for the Enloe Hydroelectric Project. The schedule assumes that the FERC license application will be accepted in early 2009 and that compliance with the NEPA will be completed by spring 2010. The schedule shows the planned phasing of engineering design and construction activities relative to the seasonal weather and river conditions at the Enloe site.

Engineering design activities would begin in spring 2010 and take about 10 months to complete. Preparation of bid documents, solicitation of bids from equipment vendors and construction contractors, and negotiation of contracts would take an additional five months. Procurement, manufacture, and delivery of power plant equipment will take a

full year. Construction activities are expected to begin in spring 2011 and continue over two construction seasons or approximately 18 months.

Improvements to the access road would occur during the first construction season in 2011 to help facilitate movement of equipment, workers and supplies to the power station site. Installation of the boat ramp would occur during the fall 2011. Construction of the parking area and vault toilet, picnic area, campsites, including the recreational access below the dam, would occur in fall 2013 after all dam and powerhouse related construction has been completed



5.0 RECREATION TRENDS AND PROJECTED USE

This chapter provides an analysis of projected recreational trends and use that are expected affect the Project site. Projections are developed to the year 2050, assuming a 40-year license is issued in 2010. The capacity of the proposed Project site improvements and Recreation Management Plan to meet the future recreational needs is considered.

The chapter is divided into three sections. First, existing recreation projections at the national and state levels are reviewed. Second, these projections are applied in projecting the growth in demand and need for facilities at the Project site. Third, the capacity of the Project improvements and RMP to meet projected need is considered.

The analysis of recreation trends and projections considers growth in demand that occurs due to baseline population growth, and trends that indicate shifts in participation rates among recreational activities. As described above, travel distance and quality will also affect the attraction of a recreational resource. As pointed out in the SCORP (RCO 2008), if there are no nearby facilities or none that are well maintained, then existing participation rates may not be a good indicator of future need. Socio-demographics of the population can also play a role in explaining some trends and in helping refine projected needs.

5.1 NATIONAL TRENDS & PROJECTIONS

Recreational activities in the U.S. during the 1980s, 1990s, and at the turn of the century are documented in an article from *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends* (Cordell *et al.* 1999); a 2005 survey from the Outdoor Industry Association (Leisure Trends Group, 2005); and a 2006 survey conducted by the U.S. Fish and Wildlife Service (U.S. Department of Interior *et al.*, 2006). The summary of trends below highlights the changes in participation found by these surveys, as well as the factors behind these changes.

Since 1960, the National Survey on Recreation and the Environment (NSRE) has been conducting surveys every five to ten years to analyze current trends in recreation activities. Data from the NSRE are used to analyze the factors that were most significant in causing the changes described. The population of the United States increased by 13.4 percent, or about one percent per year between 1982 and 1995 (U.S. Census Bureau, 2000). Participation in some recreational activities has grown at approximately the same pace as the population, but others show faster or slower rates of growth. Table 10 presents data from the NSRE regarding changes in recreational participation for a selection of recreation activities pertinent to the Project from 1982-83 to 1994-95.

Table 10: National Participation of Persons Ages 16 or Older, by Year and Activity

Activity	1982-83 (in millions)	1994-95 (in millions)	Percent Change
Bird watching	21.2	54.1	155.2%
Hiking	24.7	47.8	93.5%
Backpacking	8.8	15.2	72.7%
Primitive camping	17.7	28	58.2%
Off-road driving	19.4	27.9	43.8%
Walking	93.6	133.7	42.8%
Motor boating	33.6	47	39.9%
Sightseeing	81.3	113.4	39.5%
Developed camping	30	41.5	38.3%
Non-pool swimming	56.5	78.1	38.2%
Snowmobiling	5.3	7.1	34.0%
Cross-country skiing	5.3	6.5	22.6%
Picnicking	84.8	98.3	15.9%
Bicycling	56.5	57.4	1.6%
Fishing	60.1	57.8	-3.8%
Horseback riding	15.9	14.3	-10.1%
Hunting	21.2	18.6	-12.3%

Source: S. Cordell, H. Ken, Barbara L. McDonald, R. Jeff Teasley, John C. Bergstrom, Jack Martin, Jim Bason, Vernon R. Leeworthy, 1999.

Bird watching, hiking, backpacking, and primitive camping are among the dozen activities listed whose popularity in the nation increased more rapidly than population growth from 1983 to 1995. Picnicking increased at about the same rate as the national population, while bicycling, fishing, horseback riding, and hunting either increased more slowly than the population or actually declined in participation.

The Outdoor Industry Association also conducts surveys for participation in various outdoor recreational activities. In the last edition of their Outdoor Recreation Participation Study, the Association compared the 2004 participation rate in specific recreational activities with that measured in 1998. The participation rate is the percent of the total population that engages in a particular activity. Table 11 below shows participation rates, absolute participation, and the change in participation since 1998. Because the Outdoor Industry Association does not provide trend data for fishing, hunting, or wildlife viewing, estimates for these activities from the U.S. Fish and Wildlife National Survey for 1996 and 2006 are included in Table 11.

Table 11. National Participation and Participation Rates of Ages 16 and older, by Year and Activity

Activity	# of participants (in millions)		% change in participation	Participation Rate		
	1998	2004	1998 to 2004	1998	2004	Change 1998 to 2004
Telemark Skiing	1.3	3.6	177%	0.6%	1.6%	167.0%
Kayaking	4.2	10.2	143%	2%	4.6%	130.0%
Trail Running	31.2	39.5	26.6%	14.8%	17.8%	20.3%
Canoeing	18.1	22.2	21.5%	8.6%	10%	16.3%
Cross-country Skiing	8.8	9.8	11.4%	4.2%	4.4%	4.8%
Hiking	72.2	75.3	4.3%	34.3%	33.9%	-1.2%
Mountain biking	50.5	51.1	1.2%	24%	23%	-4.2%
Bicycling	85.3	85.7	0.5%	40.5%	38.6%	-4.7%
Rafting	9.7	9.6	-1%	4.6%	4.3%	-6.5%
Camping	68.6	65.7	-4.2%	32.6%	29.6%	-9.2%
Backpacking	16.4	13.3	-30%	7.8%	6%	-23.1%

Activity	1996	2006	1996 to 2006	1996	2006	1996 to 2006
Fishing	35.2	30.0	-14.8%	17.5%	13.1%	-25.1%
Hunting	14.0	12.5	-10.7%	7.0%	5.5%	-21.4%
Wildlife viewing	62.9	71.1	13%	31.3%	31%	-1%

Source: Leisure Trends Group, 2005; U.S. Fish and Wildlife Service 2006.

Several activities dramatically increased their participation rates over this period, including telemark skiing, kayaking, trail-running and canoeing. Participation rates in hiking, biking, and rafting decreased somewhat during the same period although absolute participation grew or held steady. Camping, backpacking, fishing and hunting are declining in participation and show steep declines in absolute participation rates.

As compared with the data presented in Table 10, the growth in popularity for some activities appears to have peaked in the 1980s and 1990s, and to have declined more recently. For example, “primitive camping” grew at 4.3 times the national population growth rate and “developed camping” at nearly three times population during the 1983-1995 period, but the “camping” participation rate declined from 1998-2004 by more than 9 percent. Backpacking, which grew at 5.4 times the population rate in 1983-1994, suffered a 23 percent decrease in participation rate from 1998 to 2004. Although “wildlife viewing” participation demonstrated a 13 percent increase in absolute numbers from 1996 to 2006, the participation rate was relatively unchanged (a decrease of 1

percent), and compared to a 155 percent increase in “bird-watching” from 1983-1995, the relative rate of growth in the activity’s popularity appears to have leveled off.

Both fishing and hunting had significantly fewer participants in 2006 as compared to 1996 (14.8 percent and 10.7 percent less, respectively), and participation rates dropped even further.

Comparing Tables 10 and 11, activities that appear to have reached a peak in participation growth rate, and although continuing to be popular, are leveling off or declining include birdwatching or wildlife viewing, cross-country skiing, hiking, camping, backpacking, hunting, and fishing. These data are not controlled for national shifts in socio-demographic patterns, however.

PROJECTIONS

National projections for participation in recreation activities to the year 2050 were determined by using the trend data described in the previous section and by predicting how socio-demographics will change in the next 50 years. *Outdoor Recreation in American Life* contains an article, “Projections of Outdoor Recreation Participation to 2050,” which describes the national recreation projections for the nation as a whole (Bowker *et al.* 1999). The projections are based on past data from the NSRE and a model that takes into account the age, income, race or ethnicity, sex, and the population of each region.

Results from this projection are presented in terms of the expected percent change in participation in each activity compared to estimated participation in 2000. Hence activities that increase more than 44 percent (the projected growth in national population) by 2050 are increasing in popularity (or have an increasing participation rate) and activities that increase less than 44 percent are decreasing in popularity, or have a decreasing participation rate. A growth index is calculated to show the rate at which activities are forecast to increase or decrease relative to population. The growth index was calculated by subtracting the population growth expected to the year 2050 (44 percent) and then dividing, or normalizing the index to the population growth. Hence sightseeing is anticipated to grow 61 percent more than population growth, and hunting is expected to decrease by 125 percent of population growth by the year 2050 (Table 12).

Trends were normalized to population (factoring out the component of growth due to population) to clarify shifts in participation among activities. First, the component of growth attributable to population growth was removed by subtracting 44 percent from each growth rate. This resulted in some activities showing a net positive growth (increasing relative to population, indicating a shift toward greater participation), and some with a net negative growth (indicating declining participation normalized for population). The results were divided by 44 to provide an index of growth relative to population. For example, hiking is projected to increase by 57 percent in 2050. Subtracting 44 from this total growth leaves a 13 percent growth in excess of

population. Dividing 13 by 44 leaves results in a positive growth index of +0.3. Compare primitive camping, increasing by 10 percent. Here the net growth relative to population is -34 percent. Dividing again by 44 leaves a negative index value of -0.77. Table 12 arrays activities by growth index to clarify which activities are increasing (and which are increasing most), and which are decreasing (and most) relative to population.

The strongest growth on a national level over the next 50 years is projected to occur in sightseeing and bicycling. The next largest growth is predicted to be in nature activities, followed by hiking, picnicking, motor boating, and non-pool swimming. The only activity with a projected decline is hunting.

Table 12. National Growth Percentile Projections, by Activity*

	10 yrs	20 yrs	30 yrs	40 yrs	50 yrs	Growth Index
Sightseeing	18%	32%	47%	59%	71%	0.61
Bicycling	15%	28%	41%	54%	70%	0.59
Nature activities	16%	29%	41%	51%	61%	0.39
Non-pool swimming	12%	21%	33%	45%	58%	0.32
Hiking	13%	23%	34%	45%	57%	0.30
Motor boating	11%	21%	31%	42%	55%	0.25
Picnicking	14%	25%	37%	45%	54%	0.23
Developed camping	12%	19%	30%	39%	49%	0.11
Walking	12%	21%	30%	39%	46%	0.5
Canoeing	8%	15%	24%	33%	46%	0.5
Fishing	9%	17%	23%	29%	36%	-0.18
Primitive camping	1%	4%	5%	7%	10%	-0.77
Hunting	-7%	-9%	-11%	-12%	-11%	-1.25

*Figures represent percent change in participation in each activity compared to estimated participation in 2000. Source: Bowker, J.M., Donald B.K. English, and H. Ken Cordell, 1999.

5.2 WASHINGTON STATE PROJECTIONS

Washington state projections for participation in recreation activities to the year 2050 were developed in March, 2003 by the Interagency Committee for Outdoor Recreation (RCO). The 2050 state projections were calculated using the same approach that Bowker *et al.* used in developing the national projections. The NSRE data was employed with a model tailored to Washington, using the NSRE 2010 projections for the RCO 10-year projections, NSRE 2020 for 20-year projections, on so on. Table 13 below shows the projected growth of participation in the State over the 50 year period for selected recreation activities pertinent to Enloe. Again, the growth index, normalized for population, indicates growth rates in relation to population.

Almost all recreation activities are projected to grow more quickly than population grows, with exception of primitive camping, fishing and hunting which, as at the national level, are projected to decline.

The growth in participation at the state level is higher than the growth at the national level for almost every activity except bicycling, fishing, and hunting. Bicycling is forecast to increase by 65 percent over the next 50 years, but is expected to grow by 70 percent at the national level. Fishing is expected to grow by the same percent in the state as the nation, although by just 36 percent. Hunting is expected to decrease at the state and national levels, by 36 percent in Washington, but only by 11 percent nationally. Some of the discrepancies here are attributable to faster expected population growth in Washington. Appendix D includes more information about forecasted increases at the state level, how that compares to the national, and provides information about the most recent recreation participation survey conducted in the state.

Table 13. Projected Growth of Recreation Participation in Washington*

	10 yrs	20 yrs	30 yrs	40 yrs	50 yrs	Growth Index
Snowmobiling	42	54	133	191	260	3.33
Rafting	20	30	52	73	97	0.62
Cross-country skiing	23	33	57	74	90	0.50
Canoeing	21	30	51	69	89	0.48
Motor boating	22	32	52	69	88	0.47
Sightseeing	26	42	58	74	87	0.45
Hiking	23	34	53	69	85	0.42
Nature Activities	23	37	52	65	77	0.28
Horseback riding	18	29	46	61	77	0.28
Walking	23	34	49	62	73	0.22
Developed camping	19	32	45	59	73	0.22
Non-pool swimming	19	29	43	57	72	0.20
Bicycling	19	29	41	53	65	0.08
Picnicking	20	31	44	54	63	0.05
Primitive camping	13	23	27	35	44	-0.27
Fishing	9	17	23	29	36	-0.40
Hunting	-15	-21	-27	-33	-36	-1.60

*Figures represent percent increase in participation for each recreation activity. Source: RCO, August, 2003.

5.3 PROJECTIONS FOR THE SURVEY AREA

METHODS

This section uses the trends and projections discussed above to project the future expected recreation visitors to the Enloe Project site. Current annual recreation visitation is defined based on the FLA Survey. The growth (or decline) in each activity is projected under low, medium, and high scenarios to the year 2050. The two factors that influence the number of recreation visitors over time are projected population growth and projected participation rates for each specific activity.

In 2006, surveys were used to develop an estimate of peak season (June-October) use of the Enloe site. Estimated use amounted to 1,378 recreation user-days (Table 4). Because the survey focused on the peak recreation season, winter recreational visitors were not included in the total.

The FLA report provided estimates of future recreation to the year 2015, based on population growth, and the 1,378 estimated visits. This chapter updates that projection by adjusting the 2006 visitation estimate to include winter use, using newer population forecasts for Okanogan County from the Office of Financial Management, incorporating changing preferences in recreation, and extending the projection horizon to the year 2050. For each of these adjustments, supporting information was gathered from interviews with local recreation managers in the area, responding to the study requests made to FERC (Appendix A).

Adjustments to Baseline for Winter Sports

Although local recreation managers were generally unable to estimate total recreation use of the Survey Area, many confirmed that the estimate of 1,378 was a number in agreement with their qualitative perception. There was consensus among recreation managers familiar with the area that recreational use varies by season. Visitation is perceived as peaking during the summertime and dropping precipitously in fall months; however, some use of the area is believed to occur during the winter season. The Washington State Recreation and Conservation Office suggested that winter activities would likely include snowmobiling, and cross-country skiing. An interview with the Okanogan Borderlands Historical Society indicated that ice fishing is also a wintertime activity.

Winter use was estimated based on respective state participation rates, the population of Okanogan County, and the relationship between participation rates in the state and project area. At the state level, participation rates for snowmobiling, and cross country skiing are one percent, and 1.3 percent respectively. The approach used was to impute participation in these winter sports from data relating state and local use for other activities at the site. The participation in boating at the site (based on the FLA Survey) represents 0.62 percent of the total county population. This rate of participation for boating in the Survey Area is 8.9 percent of the statewide boating participation rate (7

percent). Therefore assuming that same ratio of participation in winter sports activities, an estimate of users was developed by multiplying the state participation rate by 8.9 percent, and then multiplying that product by the county population. The results suggest that 36 cross-country skiing visits were made to the site on an annual basis and 46 snowmobile visits. Adding these numbers for winter visitation to the peak season estimate of 1,378 results in an adjusted annual baseline estimate of 1,460.

Recreation Participation by Socio-Demographic Groups

Changes in demographics can play a significant role in projecting future recreation rates because demographic profile can be a significant explanatory factor in participation rates for recreational activities. In projecting future recreation at the Project site, the data collected in the 2006 surveys does not provide a sufficiently robust sample to support a statistical analysis of the socio-demographic profile for the major activities at Enloe or for comparison to statewide statistics. However, the profile is notable for a few marked contrasts with the County and State demographic profiles (demographic data are reported in Chapter 2):

- The Survey Area recreational user population is older: 76 percent of survey respondents are over 40 years of age; 27 percent each in the 40-49 and 50-59 age classes, and 22 percent were 60-69. This age profile is considerably older than either the County or State profile. More than 53 percent of the County population and nearly 58 percent of the State population is less than 40 years of age.
- The Survey Area population is well educated: 35 percent had a college degree as compared to 22 percent of the County population and 28 percent of the State population.
- A large proportion is either self-employed (21 percent) or retired (21 percent) – the latter being consistent with the older age profile. This is twice the percentage reporting self-employed in the County, and may be higher than the retired proportion as well (data show only “not in labor force”).
- The average income appears to be about \$50,000/year. This is higher than County average income (76 percent are less than this figure), but about consistent with State average income (54 percent are less than \$50,000/year).

These data suggest that the Enloe user population may have more time available to engage in recreation and may show some preference for activities that are less strenuous yet maintain fitness (e.g., walking), and those that are relatively less expensive, such as wildlife watching and sightseeing. SCORP data indicate that activities such as fishing and boating are generally undertaken by younger groups, and predominantly more by men than women (RCO 2007).

Although existing data do not allow the incorporation of these impressions into our projections in a quantitative way, the “demographic effect” for each activity is incorporated in Table 14 below in estimating the general direction of projected use.

For more information about socio-demographic differences in recreation participation, please see Appendix C.

Changes in Recreation Development

Other changes in use at the Project site will result from the development or improvement of recreational facilities. New recreation facilities proposed to be developed at the site are described in Chapter 4, and will improve site access and attraction for camping, picnicking, use of the boat ramp, and trail use. Improvements to the road and trail below the dam, together with interpretive displays, vault toilet and picnic tables will likely increase general site attractiveness for such purposes as sightseeing and walking.

The development of the Greater Columbia Water Trail (GCWT) and proposed development of the Oroville-Nighthawk Trail (ONT) can be expected to affect site use as well. All recreation managers interviewed agreed that future developments in the region, especially the improvement of the ONT and GCWT, would increase recreation visitation. GCWT users would be expected to have the more immediate effect on site use, due to access. Water trail users would likely take out at the new boat ramp, and may use the local trail, picnic tables, and vault toilet – or even stay overnight in the new campsites. Once the ONT is operational, hikers would be able to travel along the west bank of the Similkameen River to the southern limit of the Project Boundary.

Recreation managers interviewed for the RNA expect that the development of these trails would increase recreation visitation in the area, bringing in hikers, boaters, and possibly bikers. The director of Pacific Northwest Trails estimated that 1,000 hikers per year will use the trail once it becomes a National Scenic Trail and expects 300-400 hikers on the ONT segment during the first year it is developed. An analyst at the Okanogan County Office of Planning and Development predicted that the PNT will attract fewer hikers than the Pacific Crest Trail. The chairman of the Greater Columbia Water Trails Coalition anticipates that the trail will ultimately attract more paddlers to the Similkameen River.

Again, although existing data do not allow the incorporation of these impressions into our projections in a quantitative way, the effect for each activity is incorporated in Table 14 below in estimating the general direction of projected use.

TRENDS IN PARTICIPATION

In order to estimate participation by activity, use was allocated by activity based on the participation rates developed from the 2006 survey, as reported in Table 6 and as adjusted for winter sports (above). During interviews, local recreation managers also

were asked to provide their impression of recent changes in regional recreation. Although most felt that visitation has increased they were not able to estimate the extent of change (and some believed that recreational participation has remained stable). One respondent suggested that growth has occurred in the use of ORVs, recreational mining, bird and butterfly watching, hiking, bird hunting, and river recreation.

Table 14 summarizes the data presented in Tables 10-13, as compared to existing participation at Enloe and changes that would be expected based on state and national data, including demographic profiles.

Kayaking (moving down the Similkameen and taking out at the Enloe boat ramp) and sightseeing would be expected to increase at a rate significantly greater than population.

Picnicking, birdwatching, photography, developed camping, and walking also would be expected to increase relative to population, while hunting and fishing would be expected to decline. Rafting, canoeing, and floating are expected to increase with use on the GCWT.

Trend data does not speak to hobby gold mining, but there is no indication that this activity would increase or decrease.

Enloe's location, relatively low quality, and status as a primarily local destination do not argue for a greatly increased rate of camping. Primitive camping appears to be declining precipitously nationwide, but at Enloe the primitive campsites will be replaced by developed camping sites, an activity that is moderately increasing nationwide.

Other activities are either not appropriate to encourage at Enloe (e.g., swimming, due to the danger posed by the dam), or are not well matched with the quality of the site and its terrain (e.g., ORV use), or would be somewhat disconnected from the site. For example, hikers, trail-runners, backpackers, bikers, and horseback riders would be likely users of the PNT/ONT, proposed to be relocated and developed on the west bank of the river. For such users to access Enloe they would need to interrupt their activity, cross the river, and make a stopover at the site. While this may occur, those activities as such would not occur at the site, which is not located along any land trail or route. The small size of the site and its rocky steep terrain do lend themselves well to these pursuits. It is assumed that when these users do visit Enloe, they will visit as sightseers, picnickers, over-night campers (etc.) and their use will be captured in the projections for those activities.

Baseline data have been adjusted to include winter sports, as described above. Projecting trends in winter sports is made difficult by lack of winter survey data at Enloe. Generally, the North Okanogan County region abounds in high quality snow sports destinations, making it unlikely that Enloe will exert much of attraction given its location.

Table 14. Changing Participation Rates (National Trends and Projections)

Activity	Survey Area Rate	1983-95		1998-04	National Growth Rate	Washington Growth Rate	Projected Trends at Enloe
		Growth	Rel. to Pop. Growth				
Shore Fishing	10.2%	-3.8%	-0.3	-25.1%	-0.18	-0.4	Decline
Boat Fishing	1.7%	-3.8%	-0.3	-25.1%	-0.18	-0.4	Decline
Hunting	6.8%	-12.3%	-0.9	-24.1%	-1.25	-1.6	Decline
Boating	27.1%		0.0				
Kayaking			0.0	130.0%			Increase
Canoeing			0.0	16.3%	0.05	0.48	Increase
Rafting				-6.5%		0.62	Increase
Motor boating		39.9%	3.0		0.25	0.47	Low quality/little use
Mining	36.2%		0.0				Stable
Sightseeing	35.6%	39.5%	2.9		0.61	0.45	Increase
Birdwatching	6.2%	155.2%	11.6	-1.0%		0.28	Increase
Photography	19.8%		0.0				Increase
Picnicking	4.5%	15.9%	1.2		0.23	0.05	Increase
Swimming (non-pool)		38.2%	2.9		0.32	0.2	Inappropriate use - danger
Primitive Camping	30.5%	58.2%	4.3	-9.2%	-0.77	-0.27	Replaced by developed campsites
Developed Camping		38.3%	2.9	-9.2%	0.11	0.22	Increase
Hiking	14.7%	93.5%	7.0	-1.2%	0.3	0.42	West bank, no access
Backpacking		72.7%	5.4	-23.1			West bank, no access
Walking		42.8%	3.2		0.05	0.22	
Trail running				20.3%			West bank, no access
Horseback Riding	0.0%	-10.1%	-0.8			0.28	Not found at site
ORV Use	2.3%	43.8%	3.3				Inappropriate use
Biking Mountain Biking	2.3%	1.6%	0.1	-4.7%	0.59	0.08	Stable
Biking Cross-country				-4.2%			Low quality
Skiing (imputed)	2.6%	22.6%	1.7	4.8%		0.5	
Snowmobiling (imputed)	3.4%	34.0%	2.5			3.33	
Other/General Recreational Use	22.0%		0.0				

VISITOR PROJECTIONS BY ACTIVITY

Future participation trends for recreation in the Survey Area were estimated using population growth projections from the Washington State Office of Financial Management (OFM), and forecasts of changing participation trends derived from Bowker et al. (1999). The analysis by Bowker et al. was based on earlier population forecasts for the entire Pacific coast region. The update is based on the most recent (2007) population forecasts for Washington State and Okanogan County, using a weighted average. The OFM population projections provide low, medium, and high county and state projections to the year 2030. For the purpose of this study, the growth rates from the decade 2020 to 2030 were assumed to continue at the same rate to the year 2050.

Bowker et al. used a logistic regression analysis to forecast the probability that a person participates in a particular recreational activity, given both the characteristics of the person (or population) and the recreational alternatives available. A separate analysis was developed for each activity and region using the recreational resources available (e.g. considering the acreage of different types of land and water available) and basic demographic information such as age, income, race, and sex. Changing participation rates for each activity were derived from Bowker et al. by replacing the population growth rates used by Bowker with updated weighted average rates considering both the State and County components of growth as described above.

Visitor projections for total use under the Low, Medium and High growth scenarios are presented in Tables 15, 16 and 17. Average day and peak day use are presented for each scenario in Tables 18, 19 and 20 below. The projections of annual use in Tables 15-17 distribute total visitor days among the projected visitor population using the participation rates developed in Table 6. Average use distributes total annual use over the season, assuming a 120-day winter sports season (November-February), and a 150-day season (mid-May to mid-October) for all other activities. Peak day use is calculated using the ratio of peak to average use developed in the Final License Application (2.33:1).

Table 15. Total Use – Low Growth Scenario

Activity	2006	2010	2020	2030	2040	2050
Shore Fishing	149	145	150	143	143	148
Boat Fishing	25	24	25	24	24	25
Boating	396	400	416	470	520	598
Hunting	99	91	80	69	60	55
Sightseeing	520	528	584	629	681	734
Mining	528	529	560	576	593	610
Birdwatching	91	92	100	106	112	120
Photography	289	291	317	339	357	382
Camping	446	446	482	508	542	591
Hiking	215	216	229	254	275	304
Picnicking	66	66	70	74	76	79
Horseback Riding	0	0	0	0	0	0
ORV use	33	32	34	31	31	32
Biking	33	33	35	36	38	41
Cross-country Skiing (imputed)	38	39	41	48	52	58
Snowmobiling (imputed)	49	53	56	94	139	223
Other/General Recreational Use	322	324	353	377	398	426

Table 16. Total Use – Medium Growth Scenario

Activity	2006	2010	2020	2030	2040	2050
Shore Fishing	149	155	168	170	179	196
Boat Fishing	25	26	28	28	30	33
Boating	396	426	466	557	650	789
Hunting	99	96	90	81	74	73
Sightseeing	520	562	654	745	851	969
Mining	528	563	628	682	741	805
Birdwatching	91	97	112	126	140	159
Photography	289	310	355	401	447	505
Camping	446	475	541	601	677	781
Hiking	215	230	257	300	344	402
Picnicking	66	70	78	87	95	104
Horseback Riding	0	0	0	0	0	0
ORV use	33	34	38	37	39	42
Biking	33	35	39	43	47	54
Cross-country Skiing (imputed)	38	42	46	56	65	76
Snowmobiling (imputed)	49	56	63	111	174	295
Other/General Recreational Use	322	346	396	447	498	562

Table 17. Total Use – High Growth Scenario

Activity	2006	2010	2020	2030	2040	2050
Shore Fishing	149	165	188	198	218	248
Boat Fishing	25	28	31	33	36	41
Boating	396	455	521	648	790	1001
Hunting	99	103	100	95	91	92
Sightseeing	520	600	730	867	1035	1229
Mining	528	601	701	795	901	1022
Birdwatching	91	104	125	147	171	201
Photography	289	331	396	467	543	640
Camping	446	508	604	700	824	990
Hiking	215	246	287	350	418	510
Picnicking	66	75	88	102	115	132
Horseback Riding	0	0	0	0	0	0
ORV use	33	37	42	43	47	53
Biking	33	38	43	50	58	68
Cross-country Skiing (imputed)	38	44	51	66	79	97
Snowmobiling (imputed)	49	60	70	130	211	374
Other/General Recreational Use	322	369	442	521	605	714

Table 18. Average Day and Peak Day Use – Low Growth Scenario

Activity	2006		2010		2020		2030		2040		2050	
	Ave	Peak										
Shore Fishing	1	2	1	2	1	2	1	2	1	2	1	2
Boat Fishing	0	0	0	0	0	0	0	0	0	0	0	0
Boating	3	6	3	6	3	6	3	7	3	8	4	9
Hunting	1	2	1	1	1	1	0	1	0	1	0	1
Sightseeing	3	8	4	8	4	9	4	10	5	11	5	11
Mining	4	8	4	8	4	9	4	9	4	9	4	9
Birdwatching	1	1	1	1	1	2	1	2	1	2	1	2
Photography	2	4	2	5	2	5	2	5	2	6	3	6
Camping	3	7	3	7	3	8	3	8	4	8	4	9
Hiking	1	3	1	3	2	4	2	4	2	4	2	5
Picnicking	0	1	0	1	0	1	0	1	1	1	1	1
Horseback Riding	0	0	0	0	0	0	0	0	0	0	0	0
ORV use	0	1	0	1	0	1	0	0	0	0	0	0
Biking	0	1	0	1	0	1	0	1	0	1	0	1
Cross-country Skiing*	0	1	0	1	0	1	0	1	0	1	0	1
Snowmobiling*	0	1	0	1	0	1	1	2	1	3	2	4

* Imputed

Table 19. Average Day and Peak Day Use – Medium Growth Scenario

Activity	2006		2010		2020		2030		2040		2050	
	Ave	Peak										
Shore Fishing	1	2	1	2	1	3	1	3	1	3	1	3
Boat Fishing	0	0	0	0	0	0	0	0	0	0	0	1
Boating	3	6	3	7	3	7	4	9	4	10	5	12
Hunting	1	2	1	1	1	1	1	1	0	1	0	1
Sightseeing	3	8	4	9	4	10	5	12	6	13	6	15
Mining	4	8	4	9	4	10	5	11	5	12	5	13
Birdwatching	1	1	1	2	1	2	1	2	1	2	1	2
Photography	2	4	2	5	2	6	3	6	3	7	3	8
Camping	3	7	3	7	4	8	4	9	5	11	5	12
Hiking	1	3	2	4	2	4	2	5	2	5	3	6
Picnicking	0	1	0	1	1	1	1	1	1	1	1	2
Horseback Riding	0	0	0	0	0	0	0	0	0	0	0	0
ORV use	0	1	0	1	0	1	0	1	0	1	0	1
Biking	0	1	0	1	0	1	0	1	0	1	0	1
Cross-country Skiing*	0	1	0	1	0	1	0	1	1	1	1	1
Snowmobiling*	0	1	0	1	1	1	1	2	1	3	2	6

* Imputed

Table 20. Average Day and Peak Day Use – High Growth Scenario

Activity	2006		2010		2020		2030		2040		2050	
	Ave	Peak										
Shore Fishing	1	2	1	3	1	3	1	3	1	3	2	4
Boat Fishing	0	0	0	0	0	0	0	1	0	1	0	1
Boating	3	6	3	7	3	8	4	10	5	12	7	16
Hunting	1	2	1	2	1	2	1	1	1	1	1	1
Sightseeing	3	8	4	9	5	11	6	13	7	16	8	19
Mining	4	8	4	9	5	11	5	12	6	14	7	16
Birdwatching	1	1	1	2	1	2	1	2	1	3	1	3
Photography	2	4	2	5	3	6	3	7	4	8	4	10
Camping	3	7	3	8	4	9	5	11	5	13	7	15
Hiking	1	3	2	4	2	4	2	5	3	6	3	8
Picnicking	0	1	1	1	1	1	1	2	1	2	1	2
Horseback Riding	0	0	0	0	0	0	0	0	0	0	0	0
ORV use	0	1	0	1	0	1	0	1	0	1	0	1
Biking	0	1	0	1	0	1	0	1	0	1	0	1
Cross-country Skiing*	0	1	0	1	0	1	1	1	1	2	1	2
Snowmobiling*	0	1	0	1	1	1	1	3	2	4	3	7

* Imputed

RECREATION MANAGER INTERVIEWS

Interviews were conducted with recreation managers familiar with recreational resources in the Enloe Project Survey Area and in the region. Twelve key contacts were interviewed between January 9, 2009 and February 4, 2009 (Table 21). Interviews were informal and exploratory; that is, although interviewers used a list of topic areas and used written questions to guide discussion, emerging information or items of interest were opportunistically followed. The interviews asked about:

- the use of recreational resources in the area and at the Enloe Project site;
- recreation trends in the region that may affect or be affected by the proposed Enloe Project RMP;
- the demographics of visitors expected to use the regional and site recreation resources; and
- anticipated effects associated with the development of the GCWT and the ONT

Summaries of the individual interviews are provided in the records of correspondence, attached as Appendix D.

Current Recreational Activities

Although many of the interviewees had little knowledge of recreation within the Survey Area, their perceptions of site use generally accorded with the findings of the 2006 surveys. Those knowledgeable with boating and floating believe that float and paddle trips originating above Enloe Dam typically put in on the Similkameen River near the Canadian border, and that rafters often put in just below the Enloe Dam. Osoyoos and Palmer Lakes (outside the Survey Area) were identified as popular water sports destinations in the general area. Estimates from guides and rental outlets indicate that about 150 kayaks are rented annually for use on the Similkameen River – about the same number as is rented for use on Osoyoos Lake. This level of use would amount to an average of 1 user/day over the May-October peak season, or perhaps 3 kayakers on a peak day.

Fishing was the subject of multiple comments. It appears that fishing for steelhead occurs up to just below the old powerhouse below Enloe Dam, while Chinook fishing occurs up to the Oroville Bridge. During the spring freshet bass fishing is good at Palmer Lake.

Table 21. Stakeholders Interviewed

Name	Affiliation	Position	Date
Jon Knechtel	Pacific Northwest Trails	Director of Trail Management	1/9/2009
Ted Murray	Okanogan County Office of Planning and Development	Senior GIS Analyst	1/9/2009
Rich Bauers	Hydropower Reform Coalition	Northwest Coordinator	1/9/2009
Susan Rosenbrough	National Park Service Rivers	Trails and Conservation Assistance	1/9/2009
Tom O'Keefe	American Whitewater	Pacific Northwest Stewardship Director	1/13/2009
Jim Harris	Washington State Parks and Recreation Commission	Director of the Eastern Region	1/14/2009
Jim Eychaner	Washington State Recreation and Conservation Office	Outdoor Recreation Planner	1/14/2009
Kay Sibley	Okanogan Borderlands Historical Society	President	1/16/2009
Dave Wallace	Extreme Adventures	Jet Ski Rentals	1/21/2009
Tim Holder	Similkameen Pond Hatchery	Hatchery Specialist	1/21/2009
Diane Priebe	Bureau of Land Management	Outdoor Recreation Planner	1/26/2009
Ron Johnston-Rodriguez	Greater Columbia Water Trails	Chairman	2/4/2009

Camping is believed to concentrate at Osoyoos State Park; respondents suggested that the campground appears to host an abundance of recreational vehicles and tents during the summer months. Similkameen Camp and Miners' Flat campgrounds are also popular on summer weekends. BLM estimated that Similkameen Camp has approximately 1,000 visitors annually.

Recreation managers familiar with local trail use indicate that the Oroville-Loomis section of the PNT (which currently follows the highway) is regularly used by hikers and bicyclists. Some of these PNT hikers and bicyclists are believed to spend the night in Oroville. It was estimated that approximately 50 hikers annually pass through this portion of the trail – about one every three days in a 150-day season. An estimated 250 bicyclists were believed to stay in Oroville while passing through, or about two per night throughout the season.

Several recreational sites in the region that would serve the pool of recreational users who also visit Enloe were mentioned by interviewees; these include Okanogan National Forest, Sinlahekin Wildlife Refuge, DNR Trust lands, Molson Museum, Spectacle Lake, Split Rock Recreation Site, Chopaka Lake, and Nighthawk. Many of these sites attract far greater numbers than does the Enloe site; for example BLM estimates that visitors to Chopaka Lake and Split Rock number 4,000 and 15,000, respectively (personal communication, Diane Priebe, BLM).

Seasonality

The recreation managers interviewed generally confirmed the seasonality of use observed at Enloe. They also confirmed the general limits of the recreation season, with visitation declining sharply during late October and through the winter months, increasing again in May and peaking in the summertime.

Point of Origin

Most recreation managers interviewed felt that users are largely local, typically within a sixty miles radius of the Project Area. There was a general consensus that most visitors to the Project Area would be most likely on their way to another destination, such as Osoyoos Lake, Molson Museum, Canada, Sinlahekin Wildlife Area, Palmer Lake, Spectacle Lake, or Okanogan National Forest.

Recent Trends in Regional Recreation

Respondents were asked to provide their impression of changes in regional recreation in the recent past. Although some felt that visitation to the area has remained constant over the past few years, the majority felt that visitation has increased. Some believed that the types of recreational activities have remained the same over time, while others mentioned growth in four-wheeling, recreational mining, bird and butterfly watching, hiking, bird hunting, and river recreation.

All contacts agreed that recreational visits would increase with the improvement of the ONT and GCWT; estimates of the magnitude of these changes varied widely. The PNT is expected to attract more cross-country skiing in the winter.

Summary

Respondents to the recreation interview believe that Enloe functions as a primarily local destination and that most visitors from more distant points of origin are traveling to another primary destination. Proposed new recreation developments or improvements at Enloe are viewed as benefits to the local area, but do not generally raise concern that more facilities would be needed to meet demand with population growth and trends in recreation participation rates.

CAPACITY AND NEEDS

This section of the RNA analyzes the extent to which anticipated future recreation demand within the Survey Area can be accommodated by recreation improvements at the Project site, or by other available recreation resources within the Survey Area.

Existing and Proposed Recreation Resources

The opportunities for visitors to view the falls, fish in the river, boat on the reservoir, explore, picnic and camp overnight will be greatly enhanced by the recreation improvements proposed in the RMP. These new improvements include four campsites with picnic tables and fire rings, four additional picnic tables in a separate picnic area, a boat ramp, and a parking area for up to five standard vehicles, plus two additional vehicles with trailers. A new trail will also be developed on the east bank of the river to provide more convenient and safer access between areas upstream and downstream of dam. These new improvements will add to other existing recreation resources and opportunities in the Survey Area, including camping, fishing, mining, and boat launch resources at Miners' Flat, and fishing and sightseeing opportunities on the east bank of the river at Shanker's Bend.

Needs and Capacity

The following sections compare the 2050 peak use projections for the recreation activities listed in Table 15 to the capacity to accommodate those activities at the Project site and in the Survey Area. Recreation needs and capacity are described quantitatively when possible.

Shore Fishing

Shore fishing in the Project Area occurs both upstream and downstream from the dam. Shore fishing below the dam typically concentrates near several pools located within an area approximately 750 feet downstream from the falls. Shore fishing upstream from the dam occurs in several areas, including approximately 1,000 feet of the east bank of the river near Shanker's Bend. District staff has reported observing as many as 30 people fishing at one time below the falls (Public Utility District No. 1 of Okanogan County,

1991.). Assuming all 30 people fishing below the falls were within the same 750 foot area, each fisher would have approximately 25 feet of riverbank available to them during peak use. Applying this same ratio of riverbank per fisher to the 1,000 feet of riverbank at Shanker's Bend, an additional 40 fishers (70 total) could be accommodated within the Project Area during peak use.

Based on the results of the 2050 peak day use projections under the High Growth Scenario, up to four shore fishers could be present within the Survey Area on a single day. According to the FLA Survey, approximately one-third of the fishers fished upstream of the dam in the vicinity of Shanker's Bend and approximately two-thirds fished below the dam. If one of the four fishers predicted to be fishing within the Survey Area in 2050 chooses to fish in the vicinity of Shanker's Bend, that fisher would have sole access to 1,000 feet of riverbank. If three of the four fishers choose to fish below the dam, each fisher would have access to approximately 250 feet of riverbank. Without considering the additional approximately 1,000 feet of riverbank available for shore fishing at Miner's Flat, it is clear that even if all projected fishers in 2050 were to be present at the Project site at the same time, there would be more than enough capacity to accommodate future shore fishing demand.

Boating

Boating activity occurs both upstream and downstream from the dam. One way to estimate boating capacity within the Survey Area is estimate the number of boaters that would enter and leave the reservoir during a single day using the proposed boat ramp. For example, assuming that four boats could be launched each hour between 8:00 a.m. and noon, and four boats could take out each hour between noon and 4:00 p.m., a total of 16 boats could launch and take out at the boat ramp each day. Using the average number of people per boat reported in the FLA Survey (approximately four), a total of 64 boaters could be accommodated within the Survey Area on a single day.

The 2050 peak day use projections under the High Growth Scenario estimate that 16 boaters, or about four boats, could be present within the Survey Area during a peak day. Assuming all four boats attempt to launch or leave the reservoir at the same time, the maximum wait time to use the boat ramp would be about 45 minutes (15 minutes for the three other boats to launch or leave the area). Based on projected need, the capacity to accommodate projected future boating activity at the Project site appears to be sufficient. If needed, additional boat launch opportunities (capacity unknown) are available three miles upriver at Miners' Flat.

Camping

Visitors to the Project site occasionally camp in the wooded area on the east side of the reservoir just upstream from the dam. Overnight camping also occurs at Miners' Flat. When developed, the four campsites at the Project site, together with approximately 10 primitive campsites currently available at Miners' Flat, would provide a total of 14 campsites within the Survey Area. Using the average number of people per camping

party reported in the FLA Survey (just under three), a total of 11 campers could be accommodated at the Project site, and up to 39 campers could be accommodated within the Survey Area (including Miner's Flat).

The peak day use projection for campers using the Survey Area in 2030 under the High Growth Scenario is 15, which would be in balance with the capacity available at the Project site once the campsites are developed. However, by 2050 the number of campers is projected to increase to fifteen. This suggests that peak day demand for camping facilities at the Project will eventually be exceeded, but not for 20 to 30 years. However, the 2050 peak day demand is still only 38 percent of the total Survey Area capacity, including the primitive campsites available three miles upriver at Miner's Flat. On a peak day in 2050, perhaps two camping groups would need to use Miner's Flat. Inasmuch as seven groups reported camping at Miner's Flat during the 2006 surveys, this does not appear to be a problem. It appears there would be sufficient capacity to accommodate anticipated future demand for camping at the Project site and within the Survey Area.

Picnicking

Four picnic tables will be available for general use at the Project site and an additional four tables are available associated with the four campsites. (If the campsites are unoccupied, these tables would be available for general use.)

Based on the FLA Survey, picnicking was reported to take place at the Project site, near Shanker's Bend and at Miners' Flat. About half of the survey respondents reported picnicking at the Project site, and about one quarter each reported picnicking at Shanker's Bend and Miner's Flat. The four picnic tables in the picnic area and the four picnic tables in the camping area would be available to site visitors.

According to the FLA Survey, the average number of people in a group visiting the Survey Area was approximately three. Based on this average group size, the four to eight picnic tables at the Project site would be able to accommodate up to 12 to 24 people at the same time. The 2050 peak day use projection for picnickers under the High Growth Scenario is only two. Based on this projection, the capacity to accommodate the future demand for picnicking within the Survey Area is well above anticipated demand.

Boat Fishing and Hunting

Boat fishing and hunting also occur within the Survey Area. The peak day use projection for boat fishing and hunting in 2050 was very low (one per day for each activity). Hunting activity may be under reported because the FLA Survey ended in October, just before the fall hunting season began.

Based on the trend data presented in Chapter 2, boat fishing and hunting are declining in popularity nationwide. Both activities can be expected to be declining in relative

popularity in the Survey Area as well. Because projected use is so low and no apparent capacity concern exists for either boat fishing and hunting currently, it is reasonable to assume that there would be no capacity concern in the future.

Mining

Mining (gold prospecting) is a relatively popular recreation activity in the Survey Area. According to the FLA Survey, 64 people reported participating in mining during the survey period. Recreational mining was reported to occur at Miners' Flat, China Rock and in the area below Enloe dam. Miners typically use a small floating suction dredge that can be moved to different locations.

The 2050 peak day use projections under the High Growth Scenario estimate that up to 15 miners could be present within the Survey Area during a peak day. Mining activity is limited by the resource itself – that is, by the availability of attractive locations to pursue the activity. These locations are afforded by the river itself, as sandbars form and are lost. The capacity of the river to provide the projected density of use is unknown, but this is not an activity that is amenable to management intervention to increase capacity. It is assumed that if future demand exceeds capacity, desirable locations will be filled on a first-come, first-served basis and latecomers will relocate elsewhere in search of open sites to pursue mining.

Sightseeing, Birdwatching and Photography

Based on FLA Survey results, the areas near the dam (including the dam overlook and areas immediately upstream and downstream of the dam) were the most popular areas for both sightseeing and photography (32 and 15 people, respectively). About half as many people participated in sightseeing at Miners' Flat (18 people) and about the same number (11 people) participated in photography. Birdwatching was also more popular near the dam (six people) and less so at Miners' Flat and Shanker's Bend (three and two people, respectively).

The 2050 peak day use projections, under the High Growth Scenario, estimate that up to 19 sightseers, 10 photographers and three birders could be in the Survey Area during the peak day. Assuming that each person participating in these activities is a different individual (this is not clear from the surveys, inasmuch as the same individual could report participation in all three activities), and that all 32 people are present within the Survey Area at the same time, with about two-thirds at the Project site and one third at Miners' Flat (at ratios similar to the ratios indicated by FLA Survey), there would be about 22 people near the dam and about 10 people near Miners' Flat. Assuming these activities are distributed over a peak period from about 9 am to 5 pm (see Chapter 2), this would amount to an average of three per hour. Even if peak use were several times this number, there is no apparent basis for concern related to the capacity of the site to serve these activities near the dam and at Miners' Flat in the future.

Hiking, Biking, Horseback Riding

The FLA Survey results indicated that hiking also occurred at the dam, at Miners' Flat and near Shanker's Bend. The levels of hiking use at each area varied. Fifteen hikers visited the area near the dam (both upstream and downstream), nine hikers visited the area near Miners' Flat and two hikers visited the area near Shanker's Bend. Two bike riders were reported near the dam and two riders were reported near Shanker's Bend. No respondents to the FLA Survey reported riding horses.

The 2050 peak day use projections, under the High Growth Scenario, estimate that up to eight hikers and one bike rider (but no horseback riders) would be present in the Survey Area during the peak day. Additional hikers, bike riders and horseback riders would likely traverse through the Survey Area using the PNT and ONT. As with other activities described above, there is no apparent capacity concern related to these activities currently, and it is reasonable to assume that these low levels of activity would not create a capacity problem in the future.

Winter Sports

Because the FLA Survey was conducted from May to October 2006, levels of participation in winter recreation activities, such as cross-country skiing and snowmobiling, were not able to be determined. Use imputed from other types of recreation activities with known participation levels in Okanogan County indicate that on a peak day in 2050 under a High Growth Scenario, there may be as many as two cross-country skiers in the Survey Area during the peak day. As with other activities described above, there is no apparent capacity concern related to these activities currently, and it is reasonable to assume that these low levels of activity would not create a capacity problem in the future.

6.0 CONCLUSIONS

This RNA was prepared in response to study requests filed with FERC by the BLM and NPS. Based on previous research and new interviews, recreation needs and opportunities were defined for a regional and the Project site, considering trends in recreation use and the demand for recreation that result from population growth, development of other recreational resources in the region, and shifting preferences for recreational activities. The following conclusions can be drawn from the analysis:

- The Enloe Hydroelectric Project does not have a negative impact on recreation in the Survey Area.
- The improvements proposed in the Enloe Final License Application and Recreation Management Plan represent a significant benefit to recreation.
- Enloe represents a local recreational resource, attracting use from a population largely within an hour's drive of the site. These points of origin contribute the largest shares of use at Enloe and collectively account for 40 percent of use.
- The remaining 60 percent of recreation use at Enloe originates from population centers throughout Washington and largely makes use of Enloe in association with a primary trip or purpose of travel.
- The Enloe user population is older (76 percent 40 years of age or older), relatively well educated, and 42 percent are retired or self-employed.
- The Enloe Project will not create or attract visitation at rates that exceeds the planned capacity of the proposed recreational facilities to be developed, even in the high growth scenario at the limit of the forecast (40 years, 2050).
- The Enloe Project will not create additional user demand on existing or proposed recreation facilities in the area that would affect their ability to serve projected recreation use in the future.

7.0 REFERENCES

18 C.F.R. 4.32(b)(7).

Bowker, J.M., Donald B.K. English, and H. Ken Cordell, 1999, *Projections of Outdoor Recreation Participation to 2050*, in *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends*, eds. Ken H. Cordell, Carter Betz, J.M. Bowker, Donald English, Shela Mou, John Bergstrom, R. Jeff Teasley, Michael Tarrant and John Loomis, Sagamore Publishing, Georgia.

Center for Tourism Research, 2005, *2004 South Dakota Motel and Campground Occupancy Report and International Visitor Survey*. Spearfish, SD., Black Hills State University.

Cordell, H. Ken, Barbara L. McDonald, R. Jeff Teasley, John C. Bergstrom, Jack Martin, Jim Bason, Vernon R. Leeworthy, 1999, *Outdoor Recreation Participation Trends*, in *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends*, eds. Ken H. Cordell, Carter Betz, J.M. Bowker, Donald English, Shela Mou, John Bergstrom, R. Jeff Teasley, Michael Tarrant and John Loomis, Sagamore Publishing, Georgia.

Greater Columbia Water Trail, 2009, Accessed January, 2009, http://www.wwta.org/trails/greater_columbia/index.asp.

Highlands Associates, 2004, *Okanogan County: Outdoor Recreation Plan*, <http://www.okanogancounty.org/planning/>.

Interagency Committee for Outdoor Recreation, March 2003, *Estimates of Future Participation in Outdoor Recreation in Washington State*, State of Washington.

Kelleher, Karen, Field Manager, Bureau of Land Management, Spokane District, Wenatchee Field Office, October 31, 2008, *Letter 2320 (134)* to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, Washington, D.C.

Leisure Trends Group, 2005, *Outdoor Recreation Participation Study: Seventh Edition, for Year 2004, Trend Analysis for the United States*, Outdoor Industry Foundation, http://www.outdoorindustry.org/images/researchfiles/2005_Participation_Study.pdf?43.

National Park Service (NPS), 2007, *National Trails System Map*, Washington, DC: National Park Service of the U. S. Bureau of the Interior, Accessed January 2009, <http://www.nps.gov/carto/PDF/TRAILSmap1.pdf>.

Okanogan County Commissioners, 2004, *Okanogan County: Outdoor Recreation Plan*, (OCORP) <http://www.okanogancounty.org/planning/> (Prepared by Highlands Associates)

Outdoor Industry Foundation. 2005. Website may be accessed at: <http://www.outdoorfoundation.org>.

Pacific Northwest Trail Association, *Enloe Dam Map*, Accessed January, 2009, <http://www.pnt.org/>.

Portland General Electric, December 1999, "Exhibit E, Recreation Resources" in the *Federal Energy Regulatory Commission Final License Application for the Pelton Round Butte Hydroelectric Project- FERC No. 2030*.

Power Authority of the State of New York, October 2001, *Report on Recreation Resources* in the Federal Energy Regulatory Commission Application for New License for the St. Lawrence FDR Power Project- FERC No. 2000.

Public Utility District No. 1 of Okanogan County, 2009, *Recreation Management Plan: Enloe Hydroelectric Project*

Public Utility District No. 1 of Okanogan County, 2008, *Final License Application: Enloe Hydroelectric Project*.

Public Utility District No. 1 of Okanogan County, Spring 2007, *Enloe Dam Hydroelectric Project: Factsheet #3*.

Public Utility District No. 1 of Okanogan County, Spring 2006, *Enloe Dam Hydroelectric Project: Factsheet #2*.

Public Utility District No. 1 of Okanogan County, Fall 2005, *Enloe Dam Hydroelectric Project: Factsheet #1*.

Public Utility District No. 1 of Okanogan County. 1991. *Application for License for Major Unconstructed Project, Enloe Hydroelectric Project No. 10536*. June 1991.

RCO (Washington State Recreation and Conservation Office). 2008. Comprehensive Outdoor Recreation Plan (SCORP), *Defining and Measuring Success: The Role of State Government in Outdoor Recreation*.

RCO (Washington State Recreation and Conservation Office). 2007. *2006 Outdoor Recreation Survey*. (Prepared by Clearwater Research)

State of Washington: Office of Financial Management, 2007, Washington State County Growth Management Population Projections. <http://www.ofm.wa.gov/pop/estimates.asp>.

U.S. Census Bureau, *Historical National Population Estimates: July 1, 1900 to July 1, 1999*, from Population Estimates Program, Population Division.

U.S. Census Bureau, *American Fact Finder*, 2008,
http://factfinder.census.gov/home/saff/main.html?_lang=en.

U.S. Department of the Interior, Fish and Wildlife Service, U.S. Department of Commerce, and U.S. Census Bureau, 2006, *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.*, U.S. Fish and Wildlife Service,
http://library.fws.gov/nat_survey2006_final.pdf.

Upper Columbia Salmon Recovery Board, August 2007, *Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan*, in coordination with National Oceanic and Atmospheric Administration Fisheries and the U.S. Fish and Wildlife Service.

Washington Department of Fish and Wildlife, *Greater Columbia Water Trail: Similkameen River Map*.

Washington State Parks, 2009, Website Accessed January 7, 2009,
<http://www.parks.wa.gov/parkpage.asp?selectedpark=Osyoos+Lake>.

Westburg, Roy D., National Park Service, Pacific West Region, October 31, 2008, *Letter ER08/1025* to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, Washington, D.C.

Personal Communications

Personal communication with Diane Priebe, Outdoor Recreation Planner, BLM, January 26, 2009.

APPENDIX A

Letters Requesting Additional Recreation Studies



United States Department of the Interior

FILED
NOV 3 2008
FEDERAL ENERGY
COMMISSION

BUREAU OF LAND MANAGEMENT
Spokane District
Wenatchee Field Office
915 Walla Walla Avenue
Wenatchee, Washington 98801

7039 NOV -3 P 12:11

IN REPLY REFER TO:
2320 (134)

October 31, 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington D. C. 20426

ORIGINAL

Dear Ms. Bose:

The Bureau of Land Management (BLM) offers the following comments and study requests in response to the "Notice of Soliciting Additional Study Requests" for the Enloe Hydroelectric Project Final License Application (FERC Project #P-12569-001), dated October 1, 2008. This is submitted pursuant to 18 C.F.R. §4.32(b)(7).

Reservation of Authority

The Project occupies public domain lands administered by the BLM that have been withdrawn for waterpower purposes. Pursuant to Section 4(e)¹ of the Federal Power Act, the BLM is responsible for the adequate protection and use of reserved lands and purposes for which these were established. Consistent with this administrative responsibility, the FERC shall include, as necessary, such conditions, as identified by the Secretary of the Interior, to ensure the protection and use of the BLM reservation and purposes for which BLM lands are administered. The BLM's reservation of authority accommodates consideration of additional data and information as it becomes available throughout the licensing proceeding.

Additional Study Requests:

Recreation

- The Final License Application does not adequately address future recreation use in the area, as required by FERC regulations. The PUD performed a recreation survey during the summer of 2006. This survey, while helpful, only considered recreation use at one time of the year, and for only one year. The BLM believes this is inadequate as the basis for evaluating recreation use and potential impacts from the proposed Project. The study needs to be performed over a minimum of three years total and at different times of the year (consider spring, fall and winter in addition to summer survey times) in order to

¹ Section 4(e) of the Federal Power Act defines "reservation" to include "...national forests, tribal lands, embraced within Indian reservations, military reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for public purposes; but shall not include national monuments or national parks."

adequately assess current recreation use in the project area. Additional study is necessary to accurately assess and evaluate current recreation use and potential impact consequent of Project operations.

- The Recreational Resources portion of the Final Licensing Application only addresses current recreation use and does not incorporate estimates of projected use over the next 30 to 50 years of the licensing period based on regional trends and changing demographics. Trends in recreation use across the United States, in Washington and in Okanogan County, reflect an increasing demand for use of existing sites and a need for new recreation sites and sites highlighting particular recreation opportunities. Current nearby recreation opportunities such as the Greater Columbia Water Trail (GCWT) and the Oroville-Nighthawk Rail Trail (part of the proposed Pacific Northwest National Scenic Trail) are anticipated to draw more visitors to the Similkameen and Okanogan valleys. Recreation improvements made by PUD within the project area will draw additional visitors to this and adjacent areas. Visitors will likely come from not only the local area, but from across Washington State and from Canada. The recreation analysis should account for these and other like trends and recreation uses. Additional data on local, statewide and national recreation trends and recreational activities, population growth and future recreation opportunities needs to be collected and compiled.

Cultural

- Cultural resource issues regarding the Enloe Dam project are being addressed through the Cultural Resources Work Group (CRWG). The CRWG has met regularly to advise the PUD regarding completion of the Section 106 requirements for the licensing process. The cultural resource inventory reports and the Historic Properties Management Plan for the project are in draft and need to be completed. Additional inventory and evaluation will also be required to address the right-of-way for the powerline(s) associated with the project. The PUD has indicated that the existing ROW will likely be used, however, it is unlikely that this existing ROW has been previously inventoried to current standards. If and when additional work is proposed in association with the FERC License for the project, additional consultation, inventory and evaluation may be required.

Aesthetics

- The PUD did not consider the aesthetic and fisheries effects of de-watering the spillway and rocky area below the dam. A study needs to be conducted which would determine the impacts on visual resources of the proposed de-watering, and which would also consider the alternative of spilling some water over the spillway all year. In addition, the visual resources study should include analysis of the aesthetics from the proposed recreation sites.

Fisheries

- It is possible that the increased surface area of the reservoir could elevate water temperature as a result of exposure to the sun. The PUD should model potential temperature effects of diverting flows from the Similkameen to the penstock for power generation and not spilling water over the dam. The PUD should also analyze high flows

over the dam in excess of the capacity of the turbines and subsequent effects on dissolved oxygen (DO).

- The Final Licensing Application lacks adequate discussion and study of the potential warm-water bass and perch recreational fishery in the pool reservoir upstream of the dam. Given the increased popularity that warm-water bass and perch fisheries have had in nearby Palmer Lake, BLM anticipates increased public interest in recreational fisheries in the reservoir above Enloe Dam. Developing hiding structures (logs, trees, rootwads) along the bank may enhance conditions for the bass and perch populations.
- The location and design of the spawning channel should be further studied and designed.

Wildlife and Vegetation Resources

- The wetland and riparian mitigation does not study impacts or enhancements to wetlands, fisheries, wildlife, botany or recreation as a consequence of increased surface water elevation of the reservoir (e.g. wetlands above the ordinary high water line of the reservoir may function more properly than those connected to the river). Off-channel wetlands or ponds will provide breeding habitat for amphibians not affected by warm-water fish.
- Effects of the powerline(s) associated with the project on wildlife should be assessed.

General Comments

In addition to the studies listed above, BLM has submitted comments to the PUD that provide additional details on questions the studies and/or the NEPA analysis should address. These are included below for your information.

Recreation

- The PUD must consult with BLM on the proposed Recreational Use Plan, and all activities proposed for BLM-managed areas.
- BLM requests a specific discussion of the PUD's proposed maintenance schedule for the new recreation site construction and administration planned for BLM-administered lands at Shanker's Bend and the Enloe site. Specifics should include: proposed facilities, maintenance, enforcement schedule, implementation, and the PUD's long-term plans for these sites. PUD should also re-evaluate the size of the proposed recreation site at Enloe Dam. In light of future expanded recreation opportunities in the area, increased population and visitor interest in developed recreation sites, the proposed recreation area should be expanded to include additional day use parking places and campsites.

Road Access to Enloe Dam and Immediate Vicinity:

- The access road to the Project including the new road segment should be constructed with an adequate number of turnouts and sight clearance to allow vehicles to safely pass along this road.

- The old road segment should be gated or blocked with rocks at both ends to restrict access.
- Spur roads leading from the access road should be closed to vehicles. Portions of these roads could be modified for turn arounds, or blocked.

Access to the River Corridor Below Enloe Dam (East Bank):

- The Enloe Initial Consultation Document and 1992 Environmental Assessment (EA) refer to a "new access site" to be located below the Dam. One of the key findings of the 2006 visitor intercept survey was that "access to the river corridor below the dam is important to visitors." However, the DLA does not address an access site below the dam, mentioning only improved recreation facilities at Enloe Dam and Shanker's Bend sites, and that "Access below the dam would be limited to existing "informal, unimproved user trails." Since below dam access is important to visitors, BLM recommends that the PUD improve and maintain a signed and designated non-motorized access trail to a safe river access site below the dam.
- If the Oroville/Nighthawk trail, as a segment of the proposed Pacific Northwest National Scenic Trail, is completed, the Okanogan PUD should consider the possibility of reconstructing the pedestrian bridge which crossed the river below the dam. This bridge would provide one-of-a-kind access from the campground and highway on the east side of the river, to the trail opportunities on the west side of the river. The bridge would also create additional trailhead and staging opportunities for the PNW Trail and the GCWT, as well as becoming a regional tourist attraction. PUD should explore possibilities of grant funding to help make this trail connection a reality. BLM recommends that PUD work with BLM, FWS, NPS, the Greater Columbia Water Trail Group, the Pacific Northwest Trail group and Okanogan County to identify water and trail access points that are likely to become popular as the water and rail trails are developed in this area.
- A percentage of current Similkameen visitors take out their boats or rafts at the Shankers Bend water access location. This is done to avoid having to paddle the flatwater stretch above the dam. The crestgates proposed for the dam will hold the impounded water behind the dam at a higher level, thus pushing the extent of the pool at the dam further upstream. The approximate new location for the beginning of the flatwater pool is at the BLM Miner's Flat access location, currently used for primitive camping and some boat launching. Though outside the Enloe Project Area, the Miner's Flat area is affected by the Enloe Dam project. BLM believes that the river visitors who currently take out their boats at Shanker's Bend to avoid the flatwater will take out at Miner's Flat once the crestgates are in operation. BLM recommends that PUD consider making recreation improvements to the Miner's Flat area to accommodate increased water access needs at this site.

Fencing

- Please provide a diagram or site drawing of fencing at Enloe Dam. Cattle should be excluded from this recreation site. *See grazing section.*

- In the event that these recreation improvements at the dam are not allowed due to security concerns an alternative location for recreation and public access needs to be developed.
- Avoid using chain-link or barbed wire type fencing, using instead smooth wire fencing or post-and-rail type construction. Please detail how the fences will be maintained and repaired as needed.
- The current safety fence at the dam should be replaced and extended about 30 feet upstream and downstream to prevent the public's access to the cliff areas.
- Any proposals for fencing on Federal land would require the necessary environmental clearances and be developed in consultation with the BLM and the grazing leasee.

Interpretation

- What interpretive features does the PUD propose to develop? Any proposals for developing interpretive facilities will require the necessary environmental clearances developed in consultation with the BLM. Will the PUD replace interpretive signs altered due to vandalism, fading, weathering, etc.? PUD will need to involve BLM in the development of signs. More detail is needed regarding signs, topics, materials and locations.
- Map of Enloe Dam area: A map of the Project, including river access points, dam portage information and recreation opportunities in the area within and adjacent to the Project boundary, should be posted as a separate sign or on informational boards around Enloe Dam area, as well as at Shanker's Bend, Miner's Flat, Similkameen camp and any other waysides that give the public access to the Similkameen/Enloe area. Also, develop map in brochure-type format.
- In addition to interpretive signs, informational kiosks should be constructed at Enloe Dam to provide information, history, and site rules to visitors.
- Where will the PUD install video surveillance?
- PUD needs to remove the two old buildings near the water pumps at the north end of the Enloe Dam location. These small buildings are unsafe to enter, encourage vandalism and graffiti. In addition, they are adjacent to the proposed recreation site and will detract from the improvements PUD is planning for the site.
- BLM also supports development of a cooperative, non-motorized public access trail along the old railroad grade from Oroville to Nighthawk, as a segment of the proposed Pacific Northwest National Scenic Trail.

Aesthetic Resources

- Why were improvements such as the improved recreation area at Enloe, the access road (particularly the new segment), riparian fencing and Shanker's Bend recreation

improvements not analyzed in Key Observation Point (KOP) discussions? These improvements will be visible from several of the KOPs, and should have been analyzed.

Fisheries

- BLM's primary concern with fisheries and fish habitat is that the spawning habitat below the Enloe falls be maintained and possibly improved. We believe that the PUD must make every effort to control flow fluctuations to prevent dewatering of downstream spawning gravels. The steelhead spawning in the Similkameen River below Enloe dam makes up approximately 15% of the steelhead population in the Okanogan Basin, and the summer Chinook make up 50% of the basin population. The plan to build a new spawning channel with gravel down stream of the falls has the potential to improve spawning habitat. However, the location of the proposed channel has not been identified or analyzed. The BLM recommends locating the spawning channel near areas of the Similkameen where natural anadromous spawning occurs.
- The BLM has some concerns about the location, timing, and potential impacts of blasting.

Wildlife

- The Final Licensing Application did not identify livestock control structures that will be installed to protect wetlands and riparian habitats.

Botany

- Include a statement about future development of a restoration plan, including goals, the species to be used, methods and benchmarks of success. The restoration plan would be reviewed and approved by the agency prior to implementation. The plan needs to address abandoned roads, including details for surface preparation to deal with compaction issues, seeding, mulching, and replacing shrubs, should be proposed. In preparing a more detailed restoration plan, vague statements like "replace planting if survival is low" should be clarified and include specific standards such as defining a percentage and diversity survivorship.
- The discussion of noxious weed control and management is vague and needs more specifics, including, but not limited to timeframes, species, and methods of control, etc.

Realty

- As is noted in the Final Licensing Application, the PUD is aware of the need to obtain an amended right-of-way (ROW) from BLM to authorize new construction and refurbishment activities at Enloe Dam. The PUD's application to amend the ROW should be submitted soon after the PUD's final license application is filed with FERC. The ROW application must include all projects or activities proposed on BLM lands. This includes the new hydroelectric facilities, decommissioning of the existing historic powerhouse and facilities (*see Cultural section*), reconstruction activities, recreation enhancements, access roads, existing or new powerlines, mitigation projects, and any other improvements. The application to amend the ROW would be processed concurrent with FERC's review of the license application.

- BLM is the underlying landowner for the property crossed by the Oroville Tonasket Irrigation District easement. A request for construction and use of an access road along the abandoned canal must also be included in the PUD's ROW application to BLM.

Cultural

- Cultural resource issues regarding the Enloe Dam project are being addressed through the Cultural Resources Work Group (CRWG). The CRWG has met regularly to advise the PUD regarding completion of the Section 106 requirements for the licensing process.
- The cultural resource inventory reports and evaluations for the project are in draft. It is our understanding that the CRWG will continue to advise the PUD regarding any additional testing that may be required for evaluation of archaeological sites to be affected by the proposed improvements. Once all evaluations and inventory documents have been completed, the reports will be reviewed and submitted for concurrence from the State Historic Preservation Office, the BLM, consulting Tribes, and the FERC. After completion of the inventory and evaluation reports, an historic properties management plan (HPMP) will be developed. It is our expectation that the CRWG will continue to review and guide the Section 106 review process through completion of the HPMP. The HPMP would guide future management of historic properties in the project area. The CRWG requested PUD continue to consider options for stabilizing the historic powerhouse and facilities. The facilities are historically significant and options to complete demolition and removal should be considered in consultation with the CRWG and interested parties.

Grazing

- There are three BLM grazing allotments within the Enloe Dam FERC project area. The affected grazing lessees need to be consulted concerning the impacts of the Enloe Dam project on their livestock operation. BLM has concerns about areas that may be fenced for recreation, riparian mitigation, facility protection and other purposes. Concerns with fencing include loss of access to livestock water and loss of forage. Two year notice to the grazing lessees is required if grazing has to be reduced due to loss of land available for grazing. Access to water at the Similkameen River is necessary for the livestock operations leasing the BLM lands within the project area. BLM will need to review the specific plans for fencing that may exclude livestock.
- At the July 1st meeting on site, BLM suggested that the PUD meet directly with the lessee most likely to be affected by the cattle being fenced out of the recreation site between the current dam and Shankers Bend. It was suggested also that the PUD could provide water up above the fence on the plateau to meet the lessee's water needs if the cows are excluded from the whole area from the old county road access down to the dam and up to Shankers Bend.
- The PUD should consider the interactions between livestock and the public due to the potential changes in recreational use of the project area that may result from the recreation site development.

The BLM appreciates the opportunity to submit these comments and looks forward to our continued work with the PUD and FERC through this process. If you have specific questions or require additional information, please contact Joe Kelly or Diane Priebe of my staff at 509-665-2100.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Kelleher". The signature is fluid and cursive, written in a professional style.

Karen Kelleher
Field Manager

cc: Robert Towne, District Manager, Spokane District BLM
Rosy Mazaika, OR-932, Oregon State Office
Allison O'Brien, Department of Interior, Office of Environmental Policy Compliance
Frank Wilson, Department of Interior, Regional Solicitors Office
Okanogan County PUD #1



United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
909 First Avenue, Fifth Floor
Seattle, Washington 98104-1060



IN REPLY REFER TO:
ER08/1025

October 31, 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426.

Dear Secretary Bose:

The National Park Service (NPS), Pacific West Region, offers the following comments and study requests in response to the Federal Energy Regulatory Commission's (FERC's) "Notice Soliciting Additional Study Requests" and notice of submission of the Final License Application (FERC #12569) for the Enloe Hydroelectric Project, notice dated October 1, 2008, pursuant to 18 C.F.R. Section 16.8(b)(4).

Under the NPS Organic Act (16 U.S.C. § 1 *et seq.*), the Outdoor Recreation Act (P.L. 88-29), the Wild and Scenic Rivers Act (P.L. 90-542), guidance from the Council on Environmental Quality regulations (45 F.R. 59190-91), and FERC regulations (18 C.F.R. § 4.41), the NPS is authorized to provide technical assistance for recreation planning in the licensing of hydropower facilities.

General Comments

NPS appreciates the opportunity to comment on the Final License Application for the Enloe Hydroelectric Project. We also appreciate the detailed diagrams and conceptual drawings of the proposed Enloe Dam Recreation site. NPS supports the Public Utility District No. 1 of Okanogan County's (PUD's) improvements to the Enloe Dam site and proposed interpretation measures, including developing a map in collaboration with the Greater Columbia River Water Trail. Other details of recreation planning as part of the Enloe project will be enumerated in the Recreation Management Plan, which has not yet been developed. In order to fully understand what is being proposed, we recommend that a Draft Recreation Management Plan be developed, in consultation with stakeholders, as soon as possible. While we understand it is PUD's intention to complete this plan in 2009, the Final License Application does not adequately address the future recreation use as required by FERC regulations. *See* 18 C.F.R. § 4.41, which states the license application should address "current *and future* recreation use". The plan should consider recreation trends and be flexible enough to accommodate future recreational activities in the recreation proposals. The plan should also include provisions for recreation monitoring and regular plan updates that are responsive to monitoring findings.

Shankers Bend

While PUD is pursuing a license on the Enloe Hydro Project, PUD is also pursuing a FERC license for the Shankers Bend Hydroelectric Project (FERC #12804), located just upstream of the proposed Enloe dam site. Currently, PUD has a preliminary permit for the Shankers Bend project. This project should be considered in conjunction with licensing the Enloe project. Each project alone would substantially change



how the Similkameen River is managed; together, there would clearly be cumulative impacts. Because these two projects are located very close together and they are interrelated, we recommend that the two be licensed together if possible. At minimum, more information on how these projects will work together in the future, particularly adequate cumulative impacts analysis, should be provided to ensure operations and mitigation for Enloe Dam work with proposals for Shankers Bend.

Specific Comments

Page E.7-2. Federally-Designated Lands. While there are no current National Scenic or Historic Trail designations, it should be noted that the Pacific Northwest Trail is currently being considered for designation (as a National Scenic Trail) by Congress and this trail would include the rail to trail section located adjacent to Enloe Dam.

Page E.7-9. Assessing Recreational Use. This section states that information obtained during only one year (2006) may have led to unusual use levels. We recommend that additional surveys be conducted over an additional year to ensure that recreation is adequately described. We support BLM's study request to conduct an additional year of surveys, as outlined in comments on the Draft License Application.

Page E.7-12. Boating and Floating. It is important to note, though not specifically discussed in this section, that consultants conducting the recreational surveys stated in public meetings that many people were observed taking out at Shankers Bend, since this is the start of the flat water. When the new project is in place, the flat water area will be extended to the area just downstream of Miners Flat. Given this, it is anticipated that more people will be taking out at Miners Flat.

Page E.7-15. Potential Recreational Use. The Greater Columbia Water Trail and the proposed Oroville-Nighthawk Trail will bring additional users to the area. These two trails are in County and Regional plans with community groups actively pursuing them. The numbers estimated for potential use in the Final License Application do not reflect this. There are a number of examples of water trails and rail-to-trails in Washington and Oregon. Gathering use information from these examples and using this as a range of potential use would create a more accurate picture of the future trail use for this area. Land- and water-based trails are some of the fastest growing and popular activities in the state. While we agree that estimating future use can be difficult, NPS believes only using population growth estimates is an inadequate approach, especially when two major trail systems are in the active planning stages for this area. In addition, locals visitors will also be drawn to the area. The Chambers of Commerce are promoting recreation along these trails, the river, and the surrounding area.

Page E.7-16. Potential Recreational Use. The Washington Recreation and Conservation Office has completed the 2008 State Comprehensive Outdoor Recreation Plan (SCORP) and information from this should be included in this section.

Page E.7-17. Agency Recommendations. NPS sent a letter to PUD on February 4th, 2008, outlining recommendations for recreation and aesthetic improvements in the project area. In addition, NPS met with PUD on January 30, 2008, April 25, 2008, and July 1, 2008. Several other organizations, including Washington Water Trails, Greater Columbia Water Trail Group, and American Whitewater, also sent letters on recreation impacts and opportunities. This should be reflected in the Consultation and Protection Mitigation & Enhancement Measures sections of the Final License Application.

Page E.8-24. Project Operation Impacts Upon Visual Resources. This section does not adequately describe the impacts to aesthetics due to the project. While it says the no spill period will occur from approximately mid-July to the following April, with effects to recreation to occur from mid-July to mid-

October, it does not provide enough supporting information necessary to assess potential impacts to aesthetics. More information is needed, including:

1. What are the flow amounts associated with a range from unacceptable aesthetic flows to optimal aesthetic flows?
2. What will the new flow regime bring in different years (e.g., dry, average, wet, etc.)? How does this compare to existing conditions?

Please refer to NPS's "Recreation and Flows: A Guide for River Professionals" for methodologies to describe and study recreation flows in the area: [nps.gov/ncrc/programs/hydro/flowrec.pdf](https://www.nps.gov/ncrc/programs/hydro/flowrec.pdf)

Protection, Enhancement & Mitigation Measures

1. NPS supports the proposed mitigation site at Enloe Dam. NPS also appreciates the PUD providing camping at this site.
2. The Greater Columbia Water Trail Coalition is working on developing a water trail on the Columbia, Okanogan, and Similkameen Rivers. This water trail development will increase awareness and use of this area for flat water paddle sports. Water trail use is on the rise statewide, as shown in the SCORP and national surveys. We recommend that PUD work with BLM, United States Fish and Wildlife Service (USFWS), NPS, and the Greater Columbia Water Trail Coalition to identify enhancements for the water trail opportunities.
 - a. We appreciate and support the PUD's proposal to develop a map of the recreation sites and access. We recommend that the PUD work with the Greater Columbia Water Trail Coalition to develop a map specific to the Similkameen River section of the water trail.
 - b. The project will extend the pool from the current Shankers Bend site to near the Miners Flat site. This will change the recreational opportunity of this stretch. PUD consultants stated recreation users currently take out at Shankers Bend due to the beginning of slack water and winds. Since the pool will change, recreation users will be displaced to Miners Flat. We recommend PUD, in consultation with BLM and others, provide improvements to this site to accommodate the increase in use.
 - c. Currently users access the river below the falls through a series of user-made trails. We recommend PUD define and improve one trail route from the take-out site and parking area to the put-in site/fishing site below the dam.
 - d. We recommend PUD define portage options, which we understand will include foot trails or the possibility of a shuttle upon request through signage and information on PUD's website.
3. As plans for the salmon side-channel are further defined, we recommend PUD consider providing public access to this site. It could provide a unique interpretation opportunity as well as a river access site, if appropriate.
4. We recommend that PUD study the potential for a river crossing. The Pacific Northwest Trail is located on the other side of the river from the access roads and a crossing would connect users to this trail. We recommend that improvement be made to allow either access across the dam (if feasible) or restoring the historic foot bridge near the powerhouse just beneath the falls. We understand that security and safety need to be considered. We note two examples of dams where public access has been recommended and is currently under consideration—Diablo and Henry Jackson.
5. We recommend that PUD convert the abandoned roads to trails to create additional recreational opportunities for users of the Enloe Dam site.
6. We recommend that the Recreation Management Plan be updated, at minimum, every six years, consistent with the FERC Form 80 requirement. We also recommend consultation with BLM, NPS, USFWS, and the Greater Columbia Water Trail Coalition in developing and implementing the monitoring plan, and that it cover use of the Greater Columbia Water Trail.

7. The old historic powerhouse should be maintained for at least five years. During this period, PUD should continue to meet with groups and agencies to determine if another entity is interested in partnering to maintain and restore it.

Study Requests

We request that PUD conduct additional analysis on aesthetic and recreation resources as outlined in the attached document.

Thank you for the opportunity to comment on the Final License Application and make study requests. We look forward to working with Okanogan PUD, FERC, and stakeholders on these projects. If you have any questions, please contact Susan Rosebrough, NPS Northwest Hydropower Coordinator, at susan_rosebrough@nps.gov, (206) 220-4121.

Sincerely,



Rory D. Westberg
Deputy Regional Director

cc: Susan Rosebrough, NPS, PWR
Michael Linde, NPS, PWR
Kelly Powell, NPS, PWR
Keith Dunbar, NPS, PWR
Rosemary Mazaika, BLM
Joe Kelly, BLM
Diane Priebe, BLM
Steve Lewis, FWS
Ted Murray, Okanogan County, (tmurray@co.okanogan.wa.us)
Dan Boettger, Okanogan County PUD, (enloe@okpud.org)
Jim Eyachner, Washington State Recreation and Conservation Organization (jime@rco.wa.gov)
Rich Bowers, Hydropower Reform Coalition (rich@hydroreform.org)
Allison O'Brien, REO, OEPC (reapn@mindspring.com)
Preston Sleeper, REO, OEPC (reopn@mindspring.com)
Nolan Shishido, SOL

Attachment 1: Aesthetic Flow Evaluation Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

This study would describe and evaluate the impacts of the project be on aesthetic flows over the dam and waterfall below.

1.2 Resource Management Goals (§5.9(b)(2))

The NPS has authority to consult with the FERC and applicants concerning a proposed project's affects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). It is the policy of the NPS to represent the national interest regarding recreation, and to assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects. Identifying the minimum and optimum aesthetic flows is consistent with NPS policy and FERC guidelines to identify project impacts and enhancements to recreation and aesthetics.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from BLM, NPS, and Department of Ecology. The public currently enjoys the views over the falls and any changes to views need to be evaluated.

1.4 Existing Information (§5.9(b)(4))

The DLA states that flows over the dam and waterfall would be reduced from July through March.

1.5 Nexus to Project (§5.9(b)(5))

This is a direct project flow-related impact on a resource identified by FERC as needing to be studied.

1.6 Study Methodology (§5.9(b)(6))

Study methodology could first include:

1. A comparative *description* of what are the current/baseline conditions and the expected new flow regimes. This would include how often and the amount of flows spilled over the dam and water falls. The description should include assessment of different seasons and years (i.e. dry, normal, and wet).
2. An *evaluation* of what this change would have is also needed. What are the minimal and optimal aesthetic flows? How will these minimal and optimal flows change with the project in place?

Please see Whittaker, Shelby and Gangemi (2005 "Recreation and Flows: A Guide for River Professionals" for methodologies to describe and study recreation flows in the area

<http://www.nps.gov/ncrc/programs/hydro/flowrec.pdf>.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would be a phased approach with a desktop analysis. The decision to progress into future phases should be made in consultation with stakeholders.

Recreation Needs Analysis Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

This study would evaluate the recreation needs over the future of the license.

1.2 Resource Management Goals (§5.9(b)(2))

The NPS has authority to consult with the FERC and applicants concerning a proposed project's effects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). It is the policy of the NPS to represent the national interest regarding recreation, and to assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in recreation has been expressed through comments from BLM, NPS, Washington Water Trails, and the Greater Columbia Water Trail Coalition. In addition, recreation interest including trail opportunities and access to the water is further defined in the 2008 SCORP.

1.4 Existing Information (§5.9(b)(4))

The DLA does contain information on an existing survey of limited recreation users at the site. It also acknowledges that recreation use will be changing in the future due to two major trails being developed (the Greater Columbia Water Trail and the Proposed Nighthawk to Oroville Rail to Trail). However, it does not include an assessment of how this will change future use or what types of facilities would be needed. The Final License Application does not adequately address the recreation needs and future recreation use as required by FERC regulations. *See* 18 C.F.R. § 4.41 which states the license application should address "current *and future* recreation use". It also provides direction to conduct a recreation needs analysis. The plan should consider recreation trends and accommodate future recreational activities in the recreation proposals. An assessment of the needs related to the project and potential future use should be identified. Connectivity of trails and facilities is a strong need. This has been outlined in the SCORP. In addition providing opportunities for short walks is important. Access across the dam or other near-by site would allow campers at Enloe Dam to access the new rail-to-trail. In addition, it would be an opportunity for people using the trail to see and learn more about the project

1.5 Nexus to Project (§5.9(b)(5))

The Project has direct and indirect effects on recreation resources within and adjacent to the Project boundary and in the affected reach of the river below Enloe Dam. These effects include providing public access to natural open space areas within and surrounding the Project for a variety of recreation activities and access to and use of the river and lake for recreation purposes. Study results will help inform stakeholders by synthesizing the information collected during relicensing and defining existing and future recreation needs that may be considered for potential PMEs, if appropriate.

1.6 Study Methodology (§5.9(b)(6))

A recreation needs analysis is needed that includes the recreation demand, supply, capacity and needs/synthesis analysis. There is some information on demand in the report, but it is limited to existing use and does not fully integrate the two new trails that are in the foreseeable future. Additional demand analysis as outlined by BLM should be included to assess existing use. In addition, the demand analysis needs to integrate the two new trails. Interviews with recreation managers on similar trails should be conducted to determine the potential new demand and management needs. A carrying capacity analysis should be conducted to assess the capacity of the project to accommodate existing and future use of the water and land trail opportunities. An assessment of the noise levels with the dam should also be

conducted to see if this would impact users at proposed Enloe Dam site. This assessment should include the feasibility of providing access across the river either via Enloe Dam or another crossing. A recreation needs analysis would be the final component and compile results of the demand, supply, and carrying capacity and identify needs over the license term. The analysis then could be used to further develop protection, enhancement, and mitigation measures.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would include desktop analysis as well as interviews with recreation managers. Estimate cost is \$30,000 - \$40,000.



October 31, 2008

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street North East
Washington, DC 20426

Electronic Filing

**Re: Enloe Hydroelectric Project, Project No. 12569-001
Comments and Study Requests**

Dear Secretary Bose:

Enclosed for filing in the above referenced proceeding are comments and study requests for American Rivers, American Whitewater, the Center for Environmental Law and Policy, the North Cascades Conservation Council, and the Columbia River Bioregional Education Project (collectively, the Conservation Groups) on the Enloe Hydroelectric Project. Copies of this filing have been served on all parties of record to this proceeding.

Thank you for consideration of our comments and study requests. Please contact me at (503) 827-8648 or via email at bswift@amrivers.org for further information or if you have any questions.

Sincerely,

Brett Swift
American Rivers

Rachel Paschal Osborn
Center for Environmental Law and Policy

Tom O'Keefe
American Whitewater

Rick McGuire
North Cascades Conservation Council

Geraldine Gillespie
Stuart Gillespie
Columbia River Bioregional Education Project

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1)	Project No. 21569-001
Of Okanogan County)	Enloe Hydroelectric
)	Project
)	
Application for New Major License)	
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AMERICAN RIVERS, AMERICAN WHITEWATER, THE CENTER FOR
ENVIRONMENTAL LAW AND POLICY, THE NORTH CASCADES
CONSERVATION COUNCIL, AND THE COLUMBIA RIVER BIOREGIONAL
EDUCATION PROJECT COMMENTS AND STUDY REQUEST IN THE ENLOE
HYDROELECTRIC PROJECT LICENSING PROCEEDING

I. Introduction

By notice dated October 1, 2008, the Federal Energy Regulatory Commission (hereafter Commission) provided Notice Soliciting Additional Study Requests on the Final License Application of the Public Utility District No.1 of Okanogan County's (hereafter District or PUD) Enloe Hydroelectric Project, FERC No. 21569-001. American Rivers, American Whitewater, the Center for Environmental Law and Policy, the North Cascades Conservation Council, and the Columbia River Bioregional Education Project (collectively, the Conservation Groups) previously submitted comments to the PUD on its Draft License Application on February 4, 2008. The Conservation Groups wish to provide additional comments and proposed study requests on this Final License Application (FLA). We have prepared our study requests in a manner designed to clearly spell out goals, public interest, and project nexus.

II. Comments

As stated in our February 2008 comments, Conservation Groups (and their members) have an interest in protecting the environmental, recreational, and other values of a fully-connected and continuously flowing Similkameen River system. Our interests include adequate assessment of the historic range of anadromous salmonids; fish passage; sufficient year-round flow necessary to protect aquatic resources and other designated beneficial use; water quality; the need for power and value of generation; and aesthetic and recreational values. The PUD has attempted unsuccessfully to license this project three times in the past. Nonetheless, the information presented in its final license application is insufficient to allow for a comprehensive assessment of the proposed projects or to fully evaluate project impacts.

In our February 2008 comments, which we incorporate by reference, the Conservation Groups identified numerous issues on which the PUD failed to provide adequate information. Upon review of the final application, several issues remain unaddressed. Importantly, the Final Application offers little improvement over the draft license application regarding several issues that critically impact proposed project operations, and the environmental, recreational and economic value of this project.

For example, the final application ignores all discussion of historic range of anadromous fish in the Similkameen River, fish passage, and potential habitat values above Enloe Dam by simply stating that “consensus” exists among agencies and stakeholders on this issue.¹ However, this statement is not accurate. The Yakama Nation and Confederated Tribes of the Umatilla Indian Reservation, as well as Conservation Groups have repeatedly requested additional studies and information on these issues. In addition, while agency, tribal, environmental and local stakeholders have commented that dewatering Similkameen Falls is unacceptable, the final application offers no discussion or option for providing adequate instream flows, and no useful information on which to discuss alternative flow scenarios. The final completely disregards aesthetic impacts from dewatering the Falls. The PUD also has failed to adequately address recreational issues to an as yet uncompleted Recreation Management Plan, thus unacceptably deferring this important issue to a post-license study. The final application provides little new or additional information on the need for power and no review of how flow changes from predicted climate change, climate change impacts on fishery populations, or required passage or minimum flows would impact this already marginally economic project. Finally, the final application once again avoids discussion of the proposed Shankers Bend project, which, if built, would dramatically change production capabilities, economic worth, and the operations of the proposed Enloe Project.

Fish passage and historic range

Okanogan PUD has tried to relicense the Enloe Hydroelectric Project three times prior to the current effort. In each of the previous proceedings, the issue of fish passage at the project has played a central role, including the existence of federal legislation requiring fish passage. Dam removal, fish ladders, and constructing the project so that it could later be retrofitted with fish passage facilities have all been discussed. Parties to those proceedings have differed greatly in their views of whether anadromous salmonids, in particular steelhead, ever passed Similkameen Falls to access miles of habitat in the Similkameen drainage. Significant documentation was provided in each of those proceedings regarding the question of fish passage, making it clear that there is no conclusive evidence that Similkameen Falls served as a barrier to fish passage. The PUD has failed to undertake additional study since the last relicensing effort to help resolve the issue, yet it again asserts that the falls is a documented barrier to fish passage. We disagree and request that the PUD conduct the necessary studies to resolve the issue. The record is replete with information calling into question the PUD’s assertions and the District has failed to conduct scientific studies that would help resolve the issue.

¹ “Consensus exists among Federal, State and Canadian agencies, the Canadian Bands, and the Colville Confederated Tribes that anadromy did not support sustainable populations of salmonids above Similkameen Falls.”

Shankers Bend

The PUD continues to omit important information regarding the proposed Shanker's Bend project, asserting that the two projects are wholly separate. While the Shankers Bend project may not come to fruition, there is a definitive proposal that should be factored into the analysis of the proposed Enloe project. Consideration of projects in a piecemeal fashion has contributed to the decline of salmon and steelhead stocks in the Columbia River basin and is no longer the manner in which analysis is conducted. Importantly, it runs counter to FERC's call for comprehensive basin analysis.

Water Quality

Water quality data in the final application is deficient in several respects. In its comment response table, the PUD acknowledges the limitations of its own analysis of dissolved oxygen (DO) and the lack of early summer testing when violations are likely to occur. The PUD proposes to implement a mitigation measure that will provide aeration when DO is low. While the measure may improve conditions, its implementation in no way negates the need to fully understand the impacts of the project. There will be no data to determine whether the PUD has successfully addressed the impacts of the project which may lead to future disagreements about the level of effort that the PUD must undertake to ensure that water quality standards are met. Commitment to a measure that may improve things does not negate the need for the PUD to undertake the required analysis.

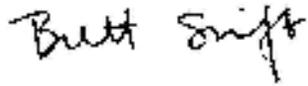
In addition to DO, questions remain regarding wetland and macroinvertebrate issues. The impacts to macroinvertebrates are not fully understood, and as such, there is no way to assess whether the proposed side channel habitat will provide the necessary level of mitigation. The PUD repeatedly relies on construction of side channel habitat to mitigate a multitude of project impacts, however, it can neither accurately define the level of impact of the expected benefit. With regard to wetlands, the PUD cannot rely on future development of a plan to address a significant impact of the project, loss of wetlands. Not only is there no way to determine the adequacy and therefore making a public interest finding regarding the proposed project, but such loss runs counter to state law.

The first step to address some of the flaws of the final application is to require that the PUD conduct additional critical analysis. On October 28, 2008, the Commission issued an order requesting additional information from the PUD. We support that initial request, however, it falls short in identifying all the additional information necessary to ensure a complete record on which to base a licensing decision. As such, we urge the Commission to request the PUD to conduct additional studies consistent with our filing, to request the necessary information on which to base decisions regarding necessary protection, mitigation, and enhancement measurements associated with this project.

III. Conclusion

In summary we request that the Commission direct the applicant to provide additional information and conduct additional studies that will enable a more complete review of this project and its impacts.

Respectfully submitted this 31st day of October, 2008.

A handwritten signature in black ink that reads "Brett Swift". The signature is written in a cursive, slightly slanted style.

Brett Swift
American Rivers
320 SW Stark St # 412
Portland, OR 97204
(503) 827-8648

cc:
Service List

Study No. 1
Fish Passage, Historical Range of Anadromous Fish
and Habitat Suitability Study
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

This study would evaluate fish passage, the historical range of anadromous fish and habitat suitability at the project and in the upstream reaches of the Similkameen River. The purpose of this study is to:

- Fully investigate the historical range of anadromous fish above Similkameen Falls.
- Investigate the feasibility of developing fish passage at Similkameen Falls and Enloe Dam.
- Assess the alternative fishway types that would be most applicable.
- Examine the relative benefits gained by allowing anadromous fish access to the habitat upstream contrasted against the possible additional instream flow requirements, energy generation reduction, and alternative fishery enhancement measures.

1.2 Resource Management Goals (§5.9(b)(2))

In its November 1991 filing, the Columbia River Inter-Tribal Fish Commission stated that it disagreed with the PUD's assertion that natural falls have historically represented the upper terminus of anadromous fish migration. It identified several studies that documented salmon and steelhead well into the Canadian Similkameen Basin. (CRITFC Petition to Intervene and Request for Studies, November 27, 1991). The Confederated Tribes of the Colville Reservation similarly questioned the PUD's assertion, noting that there is strong evidence that salmon utilized at least part of the Similkameen River above the Enloe Project before the dam was built. (Confederated Tribes of the Colville Reservation Petition for Leave to Intervene, November 25, 1991). The U.S. Department of Interior argued that "while the evidence at this time may not be clear that anadromous fish ever ascended the Similkameen River above Enloe Falls, neither is there clear evidence to the contrary." (U.S. Department of Interior Request for Rehearing and Finding of No Significant Impact, March 1, 1993, p. 5) Even FERC stated that it found that "the evidence was inconclusive as to . . . the historic presence of anadromous fish above the Falls prior to the dam's construction." (FERC, Order on Rehearing, Rescinding License, Denying License Application, and Terminating Stay, February 23, 2000).

More recently, a report prepared for the Colville Tribes, Department of Fish and Wildlife, states that "photographic interpretations of the Falls suggest possible passage" and that "[t]he presence of redband trout upstream of Enloe Dam . . . gives strong evidence that at certain times these Falls were likely passable by Interior Columbia River Redband Steelhead. (Aterburn, K. Kistler, and C. Fisher, Barriers to Anadromous Fish in the Okanogan Basin, January 2007). In addition, the National Marine Fisheries Service recently adopted its recovery plan for Upper Columbia listed stocks. In NMFS' response to comments, the agency stated: "NMFS agrees with the commenter that there is a

possibility that steelhead once made it past the natural barrier where Enloe Dam is presently located. Studies show that many miles of high quality habitat exist in the Similkameen River above Enloe Dam. If passage were provided, the upper Similkameen River could become an important area for recovery of the Okanogan steelhead population, especially if actions in other areas of the Okanogan watershed are not successful. NMFS will wait for discussions to be completed with FERC, tribal governments, and others before providing a final position on passage.” (NMFS Responses to Public Comments On the Proposed Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan, September 2007).

The need to resolve the issue of the historic extent of fish runs in the Similkameen River prior to construction of Enloe Dam has been around for years. For example, the National Marine Fisheries Service, in its June 1, 1992 filing in one of the previous attempts to relicense the project, stated that “[d]espite the clear potential for anadromous fisheries in the Similkameen River Basin, there is an unresolved issue of the presence of anadromous fish in the Similkameen River Basin prior to construction of Enloe Dam.” (National Marine Fisheries Service Comments, Recommendations, and Fishway Prescriptions and Conditions, June 1, 1992, p. 3).

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from Conservation Groups, the Columbia River Inter-Tribal Fish Commission, state and federal agencies, and others. This interest lies in the opportunity for further discussion and information relating to the issue of historic access above the Falls and hundreds of miles of critical habitat for steelhead, summer chinook, coho, sockeye and likely Pacific lamprey in the US and British Columbia.

1.4 Existing Information (§5.9(b)(4))

Information on each of these issues has been gathered and discussed for years as the Okanogan PUD attempted several times to pursue a new license application for the Enloe Project. This information needs to be revised and updated. In addition, new science and techniques are now available for determining the historical range of salmonids in the Similkameen River. Conservation Groups request that the Commission require the PUD to undertake the studies set forth in the January 8, 2008 letter to Dan Boettger, Okanogan Public Utility District from Virginia Butler, Portland State University.

1.5 Nexus to Project (§5.9(b)(5))

Fish passage is an issue at nearly every FERC licensed hydropower project in the Northwest, and this project is no exception. A determination of the direct and indirect impacts of the propose project on salmonids access to the area directly below Enloe Dam (and above Similkameen Falls), as well as hundreds of miles of river and potential habitat upstream in both the US and British Columbia, must be made. Results from the studies being requested will help inform stakeholders about the issues of historic salmon habitat and fish passage at the project, as well as contribute to development of an acceptable resolution to the long-running issue on the historical range of salmonids.

1.6 Study Methodology (§5.9(b)(6))

This study would be segmented into three phases:

- Phase I would be based on methods outlined in the January 2008 Letter from Dr. V. Butler regarding determination of historical presence of anadromy above Similkameen Falls.² Dr. Butler's letter outlines two scientific approaches: study the archaeological record of animal remains, particularly fish bone, from sites along the river and Palmer Lake, and examine the geochemistry of Palmer Lake sediments. The proposed methods for this study are consistent with professional practices.
- If Phase I shows evidence of fish presence above Enloe Dam, the PUD should then undertake Phase II. The objective of this phase is to fully understand the suitability and extent of habitat that would become accessible. Some information regarding habitat suitability has been developed, however, a more comprehensive would need to be undertaken, one that really focuses in on anadromous fish habitat above Enloe Dam.
- Concurrent with Phase II, the PUD should also evaluate the technical feasibility of various fish passage alternatives at the Enloe Project.

1.7 Level of Effort and Cost (§5.9(b)(7))

The total cost is hard to determine in part because of the phased nature of this study. Historical range studies could be completed in one study season. The outcome would affect implementation of the remaining parts of the study. If the results establish anadromous fish presence above the project, the PUD would then both assess habitat suitability as well as technical fish passage options. Collectively, this information would inform an ultimate decision on fish passage.

² eLibrary Accession Number 20080130-0139.

Study No. 2
Aquatic Resources and Habitat Flow Study
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

The final application describes operations for the Enloe Project that will result in a dewatering of a stretch directly below the dam for more than 400 feet. This dewatering undoubtedly affects a range of resources – resident and anadromous fish habitat, ecosystem health, macroinvertebrate production, connectivity, stream flow integrity. The purpose of this study is to fully understand the impacts of the proposed flow regime in the reach below the dam and to identify a range of flow regimes that will adequately protect the affected values.

1.2 Resource Management Goals (§5.9(b)(2))

In addition to ensuring protection of the designated uses, the Environmental Protection Agency's regulations implementing the Clean Water Act require that states adopt anti-degradation policies to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected (40 C.F.R. 131.12). Washington's anti-degradation policy is set forth in Part III of Washington's water quality standards for surface waters for the State of Washington, Chapter 173-201A WAC. The state's anti-degradation policy calls for restoration and maintenance of the highest possible quality of the surface waters of Washington. The policy requires that existing uses be maintained and protected, with no degradation that interferes with or injures such existing uses. (WAC 173-201A-310). The Final Application fails to address how the proposed project will meet this requirement. Dewatering of a reach that is currently watered is wholly inconsistent with the anti-degradation requirements.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from Conservation Groups, the Columbia River Inter-Tribal Fish Commission, state and federal agencies, and others.

1.4 Existing Information (§5.9(b)(4))

The Final Application states that flows over the dam and waterfall would be reduced from July through March. It is unknown whether or not salmon or steelhead could ascend the fall to potentially utilize this reach. The Final Application fails to consider any mitigation for this loss of river habitat or to offer alternative flow scenarios (year round minimum flows) in this bypass. The Final Application does not address designated uses of the river – aesthetics, salmonids spawning and rearing.

1.5 Nexus to Project (§5.9(b)(5))

This is a direct project flow-related impact on a resource identified by FERC as needing to be studied.

1.6 Study Methodology (§5.9(b)(6))

A study of the impacts of the proposed flow regime as well as potential alternative flow regimes need to be undertaken. However, given the unique characteristics of this project,

at this time, we recommend that the PUD work with interested stakeholders, including the Conservation Groups, to identify the most appropriate instream flow methodology. The relevant science on this issue is currently evolving and often depends on the unique nature of the site. There is a comprehensive discussion of possible flow study methodologies ranging from Instream Flow Incremental Methodology (IFIM) to habitat mapping to macroinvertebrate community assessments at <http://www.hydroreform.org/hydroguide/science/4-1-instream-flows>. This information should inform the discussion among stakeholders as to the most appropriate instream flow study to be implemented.

1.7 Level of Effort and Cost (§5.9(b)(7))

It is difficult to assign a level of cost and effort at this time. That will depend on the identification of the best methodology by the PUD and other stakeholders. Cost and effort will be part of the discussion.

Study No. 3
Aesthetic Flow Evaluation Study Request
Enloe Hydroelectric Project 12659-001

1.1 Study Description and Objectives (§5.9(b)(1))

This study would describe and evaluate the impacts of the project on aesthetic flows over Enloe Dam and Similkameen Falls. In coordination with interested stakeholders and the Washington Department of Ecology and National Park Service (NPS), the PUD should undertake a study to analyze various flow levels in the Similkameen River and over the Falls and identify a flow regime that will adequately protect the designated beneficial use of aesthetics.

1.2 Resource Management Goals (§5.9(b)(2))

The NPS has authority to consult with the FERC and applicants concerning a proposed project's affects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). Washington's water quality standards for surface waters provide Ecology's authority under (WAC 173-201A-310). These agencies represent the national interest regarding recreation, and assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects. Identifying the minimum and optimum aesthetic flows is consistent with agency policy and FERC guidelines to identify project impacts and enhancements to recreation and aesthetics.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in this has been expressed through comments from BLM, NPS, Department of Ecology, Conservation Groups, and American Whitewater. The public currently enjoys the views over the Falls and any changes to views need to be evaluated.

1.4 Existing Information (§5.9(b)(4))

The Final Application states that flows over the dam and waterfall would be reduced from July through March.

1.5 Nexus to Project (§5.9(b)(5))

This is a direct project flow-related impact on a resource identified by FERC as needing to be studied.

1.6 Study Methodology (§5.9(b)(6))

Study methodology would include:

1. A comparative *description* of what are the current/baseline conditions and the expected new flow regimes. This would include how often and the amount of flows spilled over the dam and water falls. The description should include assessment of different seasons and years (i.e. dry, normal, and wet).

2. An *evaluation* of what this change would have is also needed. What are the minimal and optimal aesthetic flows? How will these minimal and optimal flows change with the project in place?
3. A more in-depth and credible aesthetic survey must be completed. The PUD did a survey, but was limited in time (21 days) during one recreational use season, and was completed in an area which the PUD admits only to informal current recreation use. The 59 completed surveys are inadequate to determine either existing or potential use at this project. A new survey must be completed that uses standard approaches including both on and off-site surveys and that offer a variety of flow conditions. The survey should answer a set of standard questions that address scenic “value” and where constituents rate their viewing experience and the relative importance of the feature to them personally. The PUD should proactively reach out to local and regional stakeholders for this survey (a phone survey may suffice if robust), including those most likely to appreciate the aesthetic value of a flowing Similkameen Falls. Aesthetic studies considering waterfalls and cascades have been conducted at the Carmen-Smith Hydroelectric Project (FERC Project No. 2242), on the McKenzie River, Oregon; and at the Spokane Hydroelectric Project (FERC Project No. 2545), on the Spokane River, Washington.

Please see Whittaker, Shelby and Gangemi (2005 “Recreation and Flows: A Guide for River Professionals” for methodologies to describe and study recreation flows in the area <http://www.nps.gov/ncrc/programs/hydro/flowrec.pdf>. Additional references for aesthetic flow studies can be found online in Scientific Approaches for Evaluating Hydroelectric Project Effects <http://www.hydroreform.org/hydroguide/science/8-3-waterfalls-and-cascades>.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would be a phased approach with a desktop analysis. The decision to progress into future phases should be made in consultation with stakeholders.

Study No. 4 Recreation Needs Analysis Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

This study would evaluate the recreation needs over the future term of the license. On October 29, 2008 the Commission's Application Accepted for Filing and Request for Additional Information recognized the recreational deficiencies of the Final Application's recreation management plan, including issues such as public access, signage, trails, parking, and campsites.

1.2.1 Resource Management Goals (§5.9(b)(2))

NPS, Bureau of Land Management (BLM) and Washington's Department of Ecology each have authority to consult with the FERC and applicants concerning a proposed project's affects on outdoor recreation resources under the Federal Power Act (18 CFR 4.38(a), 5.41(f)(4)-(6), and 16.8(a)); the Outdoor Recreation Act (Pub Law 88-29) and the National Park Service Organic Act (39 Stat. 535). These agencies represent the national interest regarding recreation, and assure that hydroelectric projects subject to re-licensing recognize the full potential for meeting present and future public outdoor recreation demands, while maintaining and enhancing a quality environmental setting for those projects.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in recreation has been expressed through comments from BLM, NPS, Washington Recreation and Conservation Organization, American Whitewater, Washington Water Trails, and the Greater Columbia Water Trail Coalition. In addition, recreation interest including trail opportunities and access to the water is further defined in the 2008 SCORP.

1.4 Existing Information (§5.9(b)(4))

The Final Application does contain information on an existing survey of limited recreation users at the site. It also acknowledges that recreation use will be changing in the future due to two major trails being developed (the Greater Columbia Water Trail and the Proposed Nighthawk to Oroville Rail to Trail). However, it does not include an assessment of how this will change future use or what types of facilities would be needed. The Final License Application does not adequately address the recreation needs and future recreation use as required by FERC regulations. *See* 18 C.F.R. § 4.41 which state the license application should address "current *and future* recreation use". It also provides direction to conduct a recreation needs analysis. The plan should consider recreation trends and accommodate future recreational activities in the recreation proposals. An assessment of the needs related to the project and potential future use should be identified. Connectivity of trails and facilities is a strong need. This has been outlined in the SCORP. In addition providing opportunities for short walks is important. Access across the dam or other near-by site would allow campers at Enloe Dam to access the new rail-to-trail. In addition, it would be an opportunity for people using the trail to see and learn more about the project

1.5 Nexus to Project (§5.9(b)(5))

The Project has direct and indirect effects on recreation resources within and adjacent to the Project boundary and in the affected reach of the river below Enloe Dam. These effects include providing public access to natural open space areas within and surrounding the Project for a variety of recreation activities and access to and use of the river and lake for recreation purposes. Study results will help inform stakeholders by synthesizing the information collected during relicensing and defining existing and future recreation needs that may be considered for potential PMEs, if appropriate.

1.6 Study Methodology (§5.9(b)(6))

A recreation needs analysis is needed that includes the recreation demand, supply, capacity and needs/ synthesis analysis. There is some information on demand in the report, but it is limited to existing use and does not fully integrate the two new trails that are in the foreseeable future. Additional demand analysis as outlined by BLM should be included to assess existing use. In addition, the demand analysis needs to integrate the two new trails. Interviews with recreation managers on similar trails should be conducted to determine the potential new demand and management needs. A carrying capacity analysis should be conducted to assess the capacity of the project to accommodate existing and future use of the water and land trail opportunities. An assessment of the noise levels with the dam should also be conducted to see if this would impact users at proposed Enloe Dam site. This assessment should include the feasibility of providing access across the river either via Enloe Dam or another crossing. A recreation needs analysis would be the final component and compile results of the demand, supply, and carrying capacity and identify needs over the license term. The analysis then could be used to further develop protection, enhancement, and mitigation measures.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would include desktop analysis as well as interviews with recreation managers. Estimate cost is \$30,000 - \$40,000.

Study No. 5

Value of Generation Study Request

1.1 Study Description and Objectives (§5.9(b)(1))

Marginal economic value has been a central issue throughout the history of Enloe Dam. The focus of the study would be to provide a detailed analysis of the project economics, with a particular consideration given to the cost of measures necessary to provide adequate protection, mitigation, and enhancement. For example, the analysis should include an alternative that includes flows in the bypass reach as well as fish passage. Such analysis is necessary to understand project economics and would allow all interests to accurately weigh the value of potential power production against the impacts to the Similkameen River and related resources. As FERC stated in its February 23, 2000 Order on Rehearing , Rescinding License, Denying License Application, and Terminating Stay “[T]he obligation to construct and operate a fish ladder would significantly increase the costs of a project that already appears to be uneconomical.” Given its marginal economic value, a major resource management goal for this Project is a robust study and analysis that proceeding is in the public interest in terms of cost, future generation, and the Projects environmental, aesthetic and recreational impacts.

1.2 Resource Management Goals (§5.9(b)(2))

The need for power and the value of the proposed project undoubtedly affect the licensing determination. In turn, that determination affects numerous resources in the Similkameen River basin. Given that project economics is a critical determination regarding potential fish passage, habitat restoration, daily and adequate flows in all sections of the river, and the aesthetic and recreational values of the Similkameen, each of the resource management goals listed in Studies 1, 2, 3, and 4 would be relevant for this study also.

1.3 Relevant Public Interest (§5.9(b)(3))

Public interest in project economics, power needs, and generation value has been expressed through comments from the Conservation Groups, the Columbia River Inter-Tribal Fish Commission, and other agencies and stakeholders. It is in the general public interest to provide an adequate understanding of the full cost and potential for any proposed project.

1.4 Existing Information (§5.9(b)(4))

The Final Application fails to provide sufficient economic information to consider the power generation benefits and the natural resource impacts. The PUD states that “Enloe leaves a minimal carbon footprint and can contribute to reduced emissions when compared to the fossil fuel alternative power projects discussed in Section D.6.” but offers no specific economic review of the projects footprint or comparison with other renewable power generation. In addition, there is no analysis of generation benefits if historic flows were to change as a result of climate change. The final does provide some reference to wind power, but provides no comparison between wind (and other renewables) and hydro. The final application asserts that the PUD’s conservation program could “be expanded to the extent reasonable” (Page D 6), but it does not

describe the level of conservation potential and whether it is sufficient to eliminate the need for Enloe. The Final Application claims that if Enloe is not built, then the PUD will need to fall back to natural gas, wind power, or possibly coal-fired power generation. No firm statistics are given on how wind or conservation would play into this mix. One existing source of information on constructing an integrated assessment model as a tool for analyzing biological-economic tradeoffs can be found in the Cost-Effective Management Alternatives for Snake River Chinook Salmon: A Biological-Economic Synthesis by David L. Halsing, U.S. Geological Survey and Michael R. Moore, School of Natural Resources & Environment
http://sitemaker.umich.edu/micmoore/working_papers.

1.5 Nexus to Project (§5.9(b)(5))

It goes without saying that the value of power is directly related to the project. The need for power and the value of generation have direct and indirect effects on the PUD's ability to pay for any final requirements for fish passage, habitat improvements, daily and adequate minimum flows in all sections of the Similkameen, as well as the aesthetic and recreation resources within and adjacent to the Project. Study results will help inform stakeholders by synthesizing and expanding the information collected during relicensing and defining existing and future power and generation needs and costs.

1.6 Study Methodology (§5.9(b)(6))

Study methodology could include:

1. An accurate, credible and river specific assessment of the expected cost for fish passage, habitat restoration, adequate flows through the proposed bypass to address habitat, recreation and aesthetic values, and mitigation for aesthetic and recreation (a full range of beneficial uses). This data to be gathered through the previous study requests.
2. An evaluation of how these costs, if required, would affect the overall economic value of the Enloe Project (including construction, operation and management costs).
3. A substantial Water and Power Pricing Economics study that includes:
 - A more vigorous review of bulk power prices and a long-term trends analysis.
 - Substantial analysis in support of a realistic consideration of the carbon that could be emitted by various sources of replacement power – including conservation.
 - Full disclosure of the potential of the PUD's conservation program, including if conservation could potentially replace all of the power generated by Enloe, at less cost.
 - Power projections if seasonal flows change dramatically (climate change) and the timing, quantity and quality of future stream flows become increasingly uncertain.

This study should be undertaken by an independent researcher, and peer reviewed.

1.7 Level of Effort and Cost (§5.9(b)(7))

The level of effort would be a phased approach. The decision to progress into future phases should be made in consultation with stakeholders.

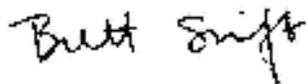
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Public Utility District No. 1)	Project No. 12569-001
Of Okanogan County)	Enloe Hydroelectric
)	Project
)	
Application for New Major License)	
_____)	

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 31st day of October 2008



Brett Swift
American Rivers

Document Content(s)

CGComments and Study Requests.PDF.....1-18

October 31, 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426



Dear Ms. Bose:

The Greater Columbia Water Trail Coalition (GCWTC) appreciates the opportunity to offer the following comments, support of study requests, and motion to intervene in response to the notice of final license application and soliciting of study requests, and notice of application accepted for filing and soliciting motions to intervene and protests for the Enloe Final License Application (FERC #12569), dated October 1, 2008, and October 29, 2008, respectively.

The Party

The GCWTC has a 26 member steering committee with additional coalition members representing the state, federal, county and local jurisdictions as well as businesses and paddling enthusiasts. The GCWTC mission is to enhance recreation and an appreciation for the Columbia River watershed's natural and cultural resources by developing water trails for flatwater paddle sports.

Motion to Intervene

GCWTC is working to develop a water trail that encompasses the Similkameen River, including the Enloe Dam project area. The Coalition represents recreation paddling interests in the project area. The GCWTC has been involved in the Enloe Dam project since winter 2006. No other party can adequately represent the GCWTC interest in this matter. GCWTC has a direct and substantial interest in the outcome of this proceeding, and our intervention in this proceeding is in the public interest as required by 18 C.F.R. Â§ 385.214(b)(2)(iii). We hereby request intervenor status in the Enloe Dam Hydroelectric Project, FERC Project No 12569.

General Comments

The Coalition sent a letter to the Okanogan Public Utility District (District) on February 4, 2008, outlining recommendations for recreation in the project area, and a representative of the GCWTC met with the District, NPS, and BLM on July 1, 2008 at the dam site. We have found the conceptual drawings and site maps of the proposed Enloe Dam Recreation Site very helpful, and we support the proposed interpretation and river mapping efforts that the District proposes in collaboration with GCWTC and other water trail partners. We recommend that the District work with BLM, US Fish & Wildlife Service, GCWTC Steering Committee, and other site and shoreline managers to identify enhancements to water trail opportunities.

We recommend that a draft Recreation Management Plan be developed as soon as possible, with appropriate input from local stakeholders and land managers. The Visitor Survey information was helpful in determining types of recreation activities currently occurring in the project area, but project improvements should be based on a larger sample taken over a longer period of time. The Recreation Management Plan should address the need for continued monitoring of recreation use

and needs, and should be updated on a regular basis. We understand the PUD would like to complete the draft plan in 2009.

GCWTC also recommends that the proposed Shankers Bend Hydro Project (FERC #12804), under preliminary permit, be considered in conjunction with the licensing of the Enloe Dam project, since together these two projects will have cumulative impacts on the Similkameen River in terms of water levels, launch and take-out sites, boating experience, and picnic/camping sites.

Study Requests

In regard to further studies, the Coalition is in support of the Aesthetic Flow Evaluation Study Request and the Recreation Needs Analysis Study Request recommended by the NPS. We also support BLM's study request to conduct an additional year of surveys, as outlined in comments on the Draft License Application. The comments below substantiate our support for the NPS and BLM study requests.

Specific Comments

Economic Development and the Economics of Shared Use

- Development of GCWT maps, water trail events, and progressively more aggressive marketing activities promoting the Okanogan Region as a destination for paddlers will likely increase use of the Similkameen River corridor by both residents and visitors. Use and promotion of the proposed Oroville to Nighthawk Trail will also likely result in increased recreation demand.
- Progress in GCWT development in the Okanogan Region (Similkameen and Okanogan Rivers) was recently realized with a WA Dept of Fish and Wildlife contribution of \$40,000 toward launch site improvements and interpretive signs on the Similkameen and Okanogan Rivers. Paddling events on the Oroville to Tonasket reach over the past three years have drawn visitors from Canada, Seattle and Idaho.
- Oroville to Nighthawk Trail users are compatible with water trail users. In fact visitors to "Okanogan Country" may extend their length of stay in local communities to experience both land and water trails, boosting the economic impact of visitors for local businesses.
- When determining location of project site improvements, consider how all users can share recreation facilities, such as parking, trail heads, campgrounds, picnic spots, info/interpretive displays, etc. Proper placement will minimize the cost of facility construction, improvement, and maintenance while minimizing the impact on the surrounding environment. Adding additional day-use parking to the current site plan may be an important consideration in addressing increased use to the Enloe Dam recreation site.

Site Aesthetics and Noise

- The natural character of the Similkameen River, its twists and turns, waterfalls, and current flow over the old spillway are visually appealing features for everyone that visits the river to float, paddle, swim, fish, or simply enjoy the scenery. What changes will the proposed project have on the amount of water flowing over the dam and to the waterfall below the dam during a "typical" flow year? An Aesthetic Flow Evaluation Study would answer this question.
- The natural setting at the dam site allows people to get off the road and enjoy nature, including the sounds of the rushing water, bird life, and the quietness such a remote site offers. What effect will the proposed new powerhouse and dam facilities have on the sound level at the site? GCWTC supports the proposed enhancements to the recreation site, including day use parking, picnic sites, and camping spaces. How will the audible sounds generated by the new dam affect these recreation opportunities and the desire for people to spend time nearby?

Public Access Points and Barrier-Free Travel

Access Above the Dam: The proposed Enloe Dam project will extend the pool from the current Shankers Bend site to the current Miner's Flat site. This will change the recreational opportunity/experience of this stretch of river. Some river users currently take out at Shanker's Bend, at the beginning of slack water. With the change in pool elevation, some boaters will likely want to take out at Miner's Flat, at the new beginning of slack water. GCWTC recommends that the PUD consult with BLM to provide improvements to Miner's Flat to accommodate the increase in use caused by the change in pool elevation. Improvements could include an improved river access site, parking, and access road to the river. Primitive camping could also be considered at this site, helping to accommodate a potential increase in use by flatwater paddlers. Leave-no-trace sanitation principles could be provided here on signs or brochures. Consideration should be given to a composting toilet or other minimal waste facility.

Access at the Dam: The GCWT Coalition supports development of an improved ramp and parking for boaters at the Enloe Dam site. The take-out should be clearly marked and indicated on signs so that boaters exit the river at the appropriate location. The District's current site plan showing the new powerhouse, intake, access roads, and site improvements is helpful in understanding circulation and how facilities relate to one another. GCWTC recommends that the District convert the abandoned road (Section B) to a trail to allow additional use and activities along the river by campers and picnickers. If picnicking can be accommodated closer to the water, in the existing vegetation, this might be a preference for the users in terms of shade and proximity to the water.

Additional parking spaces should be considered (an alternative location might be the picnic areas delineated above the access road) to accommodate an increase in site use by flatwater paddlers, hikers, and other recreationists. Planting native trees around the proposed campsites should also be considered, and placement of the interpretive board out of the parking area and closer to the river

or dam facilities. GCWTC recommends consultation with BLM and the GCWTC Steering Committee in developing the final design layout for the dam site.

Access Below the Dam: Boaters currently take out at the dam site, and also put in below it using a series of user-made trails along the steep terrain. GCWTC recommends that the PUD define and improve one foot trail route from the take-out site and parking area to the put-in site below the dam, making access easier and more defined. Improvements to this below-dam access site/portage trail should be considered during construction of the upgraded and new road to the new powerhouse, taking into account appropriate surface materials and grade for hand-carrying (and possibly wheeling) paddlecraft.

As plans for the salmon side-channel are further defined, GCWTC recommends that the PUD consider providing public access to this site, along with other possible recreation amenities and educational opportunities for people recreating on the river.

Portage: We recommend that the District define portage options that include the recommended foot trail and possibly the use of a shuttle (upon request to the PUD or other entity) through signage and information on the District's (and other county) websites, as well as on maps developed for the water trail for the Similkameen River.

Water Trail Signs: Carsonite markers typical of those used to mark the rest of the Greater Columbia Water Trail should be installed on the shoreline near boating access ramps at Miner's Flat and Enloe Dam. These markers have been designed specifically for indicating access points, river mileage, and site ownership along the GCWT.

Promote Recreation and Cultural and Environmental Education

Recreation Experience: The "Conservancy Environment" Shoreline designation and associated proposed primitive facilities are appropriate for maintaining the existing shoreline character of the Similkameen River. Take-outs, landings, and put-ins for paddle sport craft as well as picnic, campground, and sanitary facilities should be designed for minimal impact on the surrounding environment. Appropriate grades and surfacing should be considered for access roads and shoreline trails.

Recreation Promotion: Water trail signs have been developed for Washington Fish and Wildlife Department access sites upstream from Enloe Dam. A water trail information kiosk as also been installed in the community of Oroville to orient residents and visitors to water trail opportunities on both the Okanogan and Similkameen Rivers. Templates for these signs are available for use at other sites along the water trail by site managers. The Greater Columbia Water Trail is currently being promoted by the Okanogan County Chamber of Commerce, as well as by other water trail partners. Development and publication of water trail maps and guides that include site information, camping

availability, and safety information is highly desirable to improve boaters' experience on the Similkameen River.

Cultural and Environmental Education: Stakeholders should work with Okanogan PUD to produce appropriate site information and interpretive signs that provide interpretive messages at river access points and the dam. Maps and brochures should be developed that include specific site information, how to portage around the dam, safety information, regulations, etc.

Interpretation of the Enloe Dam; the flora, fauna, geology, and wildlife of the surrounding landscape; historic use and settlement; the adjacent rail corridor; and other stories would enhance all visitors' experience of the dam site.

The GCWTC supports the NPS recommendation to study the potential for providing a river crossing at the dam site, which would link parking, restroom, camping, and picnicking facilities with the Pacific Northwest Trail on the former railroad bed. As also suggested, maintaining the old powerhouse for at least five years would allow for possible partnership opportunities for restoration, use or interpretation of this unique structure. Greater Columbia Water Trail partners include local Chambers of Commerce, the Wenatchee Valley Museum & Cultural Center, members of the Coville Confederated Tribes, educators, and others who may be able to assist with interpretive ideas and products for the Enloe Dam project.

Thank you for the opportunity to comment and request studies on the Final License Application. We ask that you accept the motion of intervention. The Greater Columbia Water Trail Coalition looks forward to working with Okanogan PUD, FERC, and stakeholders as the licensing process progresses. If you have any questions about our recommendations, please give me a call or send an email to the address below.

Sincerely,

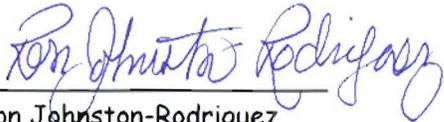


Ron Johnston-Rodriguez
Chairperson-Greater Columbia Water Trail
238 Olds Station Rd, Suite A
Wenatchee, WA 98801
ron@ccpd.com
P 509.663.5159
F 509.662.5151



Certificate of Service

I hereby certify that I have this 31st day of October 2008, served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.



Ron Johnston-Rodriguez
Chairperson-Greater Columbia Water Trail

cc: Susan Rosebrough, NPS Hydropower Coordinator (Susan_Rosebrough@nps.gov)
Diane Priebe, BLM (Diane_Priebe@or.blm.gov)
Ted Murray, Okanogan County (tmurray@co.okanogan.wa.us)
Patrick M. Verhey, Washington State Department of Fish and Wildlife,
(verhepmv@dfw.wa.gov)
Donald Clarke, Okanogan County PUD, dhclarke@gkrse-law.com
Dan Boettger, Okanogan County PUD, (P.O. Box 912, Okanogan, WA 98840)
Thomas Young, Washington State Department of Ecology, (P.O. Box 40117, Olympia,
WA 985040117)
Pat Irle, Washington State Department of Ecology (pir1461@ecy.wa.gov)
Elizabeth Ellis, Washington State Department of Natural Resources,
(Elizabeth.ellis@dnr.wa.gov)
Nancy Lopez, Washington State Department of Natural Resources
(nancy.lopez@dnr.wa.gov)

Document Content(s)

FERC12569 commentsintervener motion.PDF.....1-6

Okanogan Borderlands Historical Society

1210 Ironwood Street

Oroville, WA 98844

November 18, 2008

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Ms. Bose:

The Okanogan Borderlands Historical Society is pleased to have the opportunity to offer comments, support of study requests and motion to intervene in response to the notice of final license application and soliciting of study request and notice of application accepted for filing and soliciting motions to intervene and protest for the Enloe Final License Application (FERC #12569) dated October 1, 2008 and October 29, 2008 respectively.

Okanogan Borderlands Historical Society

The Okanogan Borderlands Historical Society has a mission to: To encourage the **preservation** of North Okanogan Valley history; operate the North County Historical Museums and to **collect** and **preserve** artifacts and library materials which establish and illustrate the **history** of North Okanogan Valley. The society currently has 102 members, a five-member board and several on-going committees. The vision of the organization is to make history a **focal point** of North Okanogan Valley **pride** including the great and **diverse heritage** of the area. A recent publication of OBHS is ***A Bit of History: Enloe Dam*** examines the personal side of Enloe Dam in the history of our area.

Motion to Intervene

The OBHS has considerable interest in preserving the history of Enloe Dam, the mining sites along the Similkameen River and the national trail being developed by the Pacific Northwest Trail Association on the abandoned railroad base that exists on the south side of the Similkameen River. OBHS has a direct and substantial interest in the outcome of this proceeding and our intervention in this proceeding is in the public interest as required by 18 C.F.R. 385.214(b)(iii). We hereby request intervenor status in the Enloe Dam Hydroelectric Project, FERC Project No 12569.

General Comments

We support the proposed interpretation and river mapping efforts and that the District work with BLM, US Fish and Wildlife Service, GCWTC Steering committee and other site and shoreline managers to identify enhancements to water trail opportunities.

We recommend a draft Recreation Management Plan be developed as soon as possible with appropriate input from local stakeholders and land managers. The Recreation management Plan should address the need for continued monitoring of recreation use and needs and should be updated on a regular basis. We understand that the PUD would like to complete the draft plan in 2009.

OBHS also recommends the proposed Shankers Bend Hydro Project (FERC #12804) under preliminary permit be considered in conjunction with the licensing of the Enloe Dam project since together these two projects will have cumulative impacts on the Similkameen River in terms of water levels, boating experience, picnic/camping sites, fishing, spawning, quality of water issues with the hundreds of abandoned mines and tailings, and the hiking and horseback trails developing on the south side of the Similkameen River by the Pacific Northwest Trail Association.

Study Requests

In regard to further studies, OBHS is in support of the Aesthetic Flow Evaluation Study Request and the Recreation Needs Analysis Study Request recommended by the NPS. We also support BLM's study request to conduct an additional year of surveys, as outlined in comments on the Draft License Application. The comments below substantiate our support for the NPS and BLM study requests.

Specific Comments

- Development of mining history events, history tours led through the OBHS, water trail events and maps through the Greater Columbia Water Trail and the signage and recreational trail development from Oroville to Nighthawk will increase the use of the Similkameen River corridor by both residents and visitors.
- The GCWT organization has begun adding interpretive signs on the Similkameen and Okanogan Rivers as well as sponsored paddling events from Oroville to Tonasket over the past three years and has had participants from two states as well as British Columbia.
- The Okanogan County Tourism Council has creative interpretive signs along the Oroville-Nighthawk road to explain mining, water use and history of the area.

- When determining location of project site improvements please consider how all users can share recreation facilities, such as parking, trail heads, campgrounds, and picnic spots, info/interpretive displays. Proper placement will minimize the cost of facility construction, improvement and maintenance while minimizing the impact on the surrounding environment. Adding additional day-use parking the current site plan may be an important consideration in addressing increased use to the Enloe Dam recreation site.

- The history of the Similkameen area stretches back at least 13,000 years with the Native Americans and First Nations peoples, the fur trading through the Astor, NorthWest and Hudson Bay fur traders, the Caribou Cattle trail, the first gold strike in what is now Washington State to the 20th century development. All of this should be represented in the consideration of use, interpretive displays, site improvements, etc.

- The natural character of the Similkameen River, its twists and turns, waterfalls and current flow over the old spillway are visually appealing features for everyone who visits the river to float, paddle, swim, fish, take photos, bird watch, or discover history. What changes will the proposed project have on the amount of water flowing over the dam and to the waterfall below the dam during a “typical” flow year? An Aesthetic Flow Evaluation Study would answer this question.

- The natural setting at the dam site allows people to get off the road and enjoy the quiet of nature, including the sounds of rushing water, animals and birds. What effect will the proposed new powerhouse and dam facilities have on the sound level at the site? OBHS supports the proposed enhancements to the recreation site; including day use parking, picnic sites and camping spaces. How will the audible sounds generated by the new dam affect these recreation opportunities and the desire for people to spend time nearby?

Public Access Points and Barrier-Free Travel

Access above the Dam: The proposed Enloe Dam project will extend the pool from the current Shankers Bend site to the current Miner’s Flat site. This will change the recreational opportunity/experience of this part of the river. Some river users currently disembark at Shankers Bend, at the beginning of the slack water. With the change in pool elevation, some boaters will likely want to disembark at Miner’s Flat. Improvements to Miner’s Flat would need to be made accommodate the increase in use caused by the change in pool elevation. Improvements could also be considered at this site helping to accommodate a potential increase in use by flat-water paddlers. Leave-no-trace sanitation principles could be provided on signs or brochures. Consideration should be given to a composting toilet or other minimal waste facility and/or the use of solar power as needed.

Access at the Dam: OBHS supports development of an improved ramp and parking for the boats at the Enloe Dam site. The embarking and disembarking areas should be clearly marked and indicated on signs so the boats exit the river at the appropriate location. OBHS recommends that the abandoned road on the north side of the river (Section B) be converted to a trail to allow for additional use and activities along the river by campers and picnickers. The current trees would help with shade during the hot summer months while additional native trees and plants have an opportunity to be planted.

The South Side: OBHS recommends continued work with the Pacific Northwest Trail Association on the Oroville-Nighthawk trail and accesses that may be needed from the trail to river, and leave-no-trace sanitation principles need there as well. Consideration should be given to a composting toilet or other minimal waste facility and/or the use of solar power as needed.

Access Below the Dam: The embarking and disembarking areas should be clearly marked and indicated on signs so the boats exit the river at the appropriate location. Currently a series of user-made trails along steep terrain are used. OBHS recommends that the PUD define and improve one foot trail route from the disembark area and parking area to the put-in site below the dam making access easier and more defined. Improvements to the below-dam access site and portage trail should be considered during construction of the upgrade and new road to the new powerhouse, taking into account appropriate surface materials and grade for hand carrying and possibly wheeling paddle craft.

Promote Recreation and Cultural and Environmental Education.

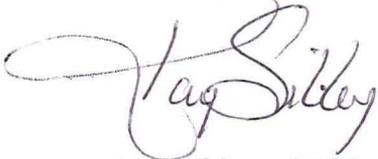
Signage: OBHS would like to work with Okanogan PUD in the creation of historical interpretive signage throughout the recreational and historical areas on the Similkameen River. Marking or mapping where historical events of interest can be seen or explained is important, (i.e. Hudson Bay Fur trading routes along the Similkameen, where mining began, or where Rapid City was located) as well as interpretive signs on native plants, geology and wildlife.

Recreation Experience: The “Conservancy Environment” Shoreline designation and associated proposed primitive facilities are appropriate for maintaining the existing shoreline character of the Similkameen River. Appropriate grades and surfacing should be considered for access roads and shoreline trails.

OBHS supports the NPS recommendations study the potential for providing a river crossing at the dam site which would link parking, restroom, camping and picnicking facilities with the Pacific Northwest Trail on the former railroad bed. As also suggested, maintaining the old powerhouse for at least five years would allow for possible partnership opportunities for restoration, use or interpretation of this unique structure. OBHS currently partners with the following organizations: Upper-Columbia Museums, Oroville Chamber of Commerce, members of the Colville Confederated Tribes, Pacific Northwest Trail Association, Okanogan County Historical Society, Resources Coalition (miners), North Valley Artist Association Friends of the Oroville Library.

Thank you for the opportunity to comment and request studies on the Final License application. We ask that you accept the motion of intervention. The Okanogan Borderlands Historical Society looks forward to working with the Okanogan PUD, FERC and stakeholders as the licensing process progresses. If you have any questions about our recommendations please e-mail to the address below.

Sincerely,

A handwritten signature in black ink, appearing to read "Kay Sibley". The signature is fluid and cursive, with the first name "Kay" being more prominent and larger than the last name "Sibley".

Kay Sibley - ksibley@nvinet.com
President of OBHS

Cc: Susan Rosebrough, NPS Hydropower Coordinator
Diane Priebe, BLM
Ted Murray, Okanogan County
Patrick M. Verhey, Washington State Department of Fish and Wildlife
Donald Clarke, Okanogan County PUD
Dan Boettger, Okanogan County PUD
Thomas Young, Washington State Department of Ecology
Elizabeth Ellis, Washington State Department of Natural Resources
Nancy Lopez, Washington State Department of Natural Resources

November 25, 2008

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington D.C. 20426

***RE: Public Utility District No. 1 of Okanogan County, Enloe Hydroelectric Project,
FERC Project No. 12569-000; Response to Study Requests***

Dear Ms Bose:

Public Utility District No. 1 of Okanogan County (“District”), under the preliminary permit issued by the Federal Energy Regulatory Commission (“FERC” or “Commission”) for the Enloe Hydroelectric Project, FERC Project No. 12569 (“Project”)¹ filed its License Application on August 22, 2008. FERC’s Notice Soliciting Additional Study Requests closed October 31, 2008. Pursuant to 18 C.F.R. § 4.32(b)(7) of the Commission’s regulations, resource agencies, Tribes, or persons believing that an additional scientific study should be conducted to form an adequate factual basis for a complete analysis of the application on its merit were requested to respond. Six letters were received, requesting additional studies:

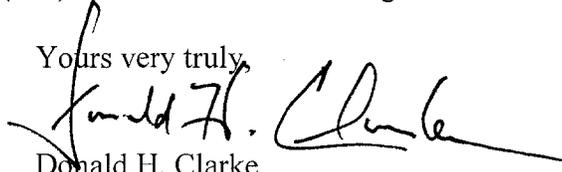
- USDI Bureau of Land Management (October 31, 2008)
- USDI National Park Service (October 31, 2008)
- Washington Department of Fish & Wildlife (October 28, 2008)
- American Rivers (October 31, 2008)
- Greater Columbia Water Trail (October 31, 2008)
- Okanogan Borderlands Historical Society (November 18, 2008)

The letters included both study requests and general comments on the Project. This filing responds to the specific study requests contained in the letters. The District has responded to comments made by these respondents on the Draft License Application (“DLA”), some of which resulted in modifications to the license application prior to filing. Others were addressed in the “response to comments” matrix appended to the Final License Application (“FLA”).

¹ *Public Utility District No. 1 of Okanogan County*, 112 FERC ¶ 62,221 (2005).

Should you have any questions regarding the attached response to study requests or any other issue involving the Project, please do not hesitate to contact Dan Boettger, Director of Regulatory and Environmental Affairs, at (509) 422-8425 or the undersigned counsel.

Yours very truly,

A handwritten signature in black ink, appearing to read "Donald H. Clarke". The signature is written in a cursive style with a long horizontal stroke at the end.

Donald H. Clarke
Counsel for Public Utility District
No. 1 of Okanogan County

Enclosure

RESPONSE TO STUDY REQUESTS

Bureau of Land Management (BLM) Study Requests

The BLM owns the land upon which the proposed Project is situated. The District has received two letters from the BLM on the draft license application, in addition to this study request/comment letter filed with FERC on November 3, 2008. A response to initial comments from the BLM on the draft license application is provided as part of the Enloe license application Comment Response Table, an appendix contained in Volume 3 of the filing (the BLM letter is also provided in the subsequent appendix in the same volume). A second comment letter was received dated July 31, 2008, just before the license application was filed with FERC. The District is responding by separate letter to the comments in the second letter, which largely repeats comments made in the first BLM letter. In addition, the District addressing recreation comments raised by the BLM through a consultation process that was initiated as part of the District's preparation of a Recreation Management Plan (RMP). The RMP is referenced at several points in the license application and is the subject of one of FERC's own additional information requests (AIR #14 from FERC's October 28 letter). The RMP consultation process will conclude in early 2009 and a response to FERC's AIR #14 will be provided at that time.

The BLM's response to FERC's Notice Soliciting Additional Study Requests repeats the same general comments (in addition to study requests) that were made in the July 31, 2008 letter. These comments are being addressed as described in the preceding paragraph. Following is the District's response to the specific study requests contained in the BLM's October 31, 2008 letter.

Recreation

The BLM requests that the recreation survey conducted by the District in 2006 be repeated to cover a minimum of three years and at different times of year (spring, fall, and winter). The District responded to this request in the license application Comment Response Table. This study is not needed. The nature of the responses to the 2006 survey and the character and amount of recreational use observed suggest that it is unlikely that additional study would add significant information or change the conclusions that have been drawn. In fact, the survey responses indicated that most respondents preferred minimal changes to current activities and facilities.

The 2006 survey covered the recreational use period. The site is under cover of snow from about November through March or April in most years. It is infrequently visited during that period, as access is precluded by the accumulation of snow and ice. The District does not propose to plow those roads to maintain winter access, except as may be needed for the District to access Project facilities (the Project will be remotely operated and will not be regularly visited by District personnel). For these reasons, recreation surveys in late fall, winter, and early spring would serve no purpose.

The Project area currently receives light, informal use. It is not a regional attraction or destination, although people who live outside the local area pass through and were contacted in the recreation surveys. It is not expected that the character or level of recreational use of the Project area will significantly change with the development of the Project or other proposed

recreational improvements in the vicinity (e.g., the Oroville-Nighthawk Trail, the Greater Columbia Water Trail). However, the BLM has requested further analysis of potential future changes in recreation demand, and the District agrees to provide this study. It would be premature to commit to additional years of recreation survey prior to completion of the additional recreation needs analysis that has been requested.

Cultural

The BLM correctly notes that cultural resources issues are being addressed through a Cultural Resources Work Group. BLM suggests that additional inventory and evaluation will be required to address the right-of-way (ROW) for the transmission line for the Project. It appears that BLM may not have fully understood that the Project interconnects to the existing District distribution system immediately adjacent to the Project. As described in Exhibit A.4, the length of new 13.2 kV primary transmission line required to serve the Project will be only 100 feet. This ROW and the one new pole required to serve the project lie within the Project Boundary and APE for cultural resources, and have been surveyed, as reported in Exhibit E.4.

Aesthetics

BLM requests a study to determine the impacts on visual resources of dewatering the spillway and rocky area below the dam, and which considers the alternative of spilling some water over the spillway all year. In addition, BLM requests an analysis of aesthetics from the proposed recreation sites.

With regard to the request for an evaluation of visual impacts of dewatering, this study is not needed. The license application includes simulations of views of the Similkameen River with no spill over the dam from Key Observation Points 3 and 4 in Exhibit E.8 (pages E.8-20 to E.8-23). As discussed in E.8.2, the District employed the BLM's Visual Resource Management (VRM) methodology in evaluating effects.

The District agrees with the BLM request to analyze aesthetics from the proposed recreation sites, and will provide additional photo simulations and application of the VRM at those locations.

Fisheries

The BLM is requesting that the District conduct additional modeling to determine potential effects on water temperature from diverting water from the Similkameen through the penstock instead of spilling water over the dam as occurs now. The BLM is also requesting that the District analyze the effects of high flows in excess of the capacity of the turbines that will pass over the dam and identify the subsequent effects on dissolved oxygen (DO).

The District has evaluated the effect of the Project on water temperatures and DO in Exhibit E, Subpart E.2 Water Quantity and Quality. The conclusions reached in the Exhibit E address the questions raised by the BLM. The District believes no further analysis or study is necessary.

The concern expressed by the BLM is one that the District considered in the license application. The data and analyses presented in the license application demonstrated that the Project will not adversely affect water temperatures in the Similkameen River. Water temperatures will be in

compliance with State standards, which are based on a 7 day average maximum temperature. In brief, the reservoir is located in a steep and narrow canyon, exposing relatively little surface area relative to depth. The mixing of warmer day time inflows with cooler reservoir water will decrease peak temperatures. This cooling effect was demonstrated during temperature monitoring in studies conducted for the license application. Temperature will be monitored after project operation begins to ensure compliance with temperature standards (PM&E WQ-01).

The District examined DO issues in the license application and found that high DO levels associated with high flows over the dam would not be a concern, but that low flows could potentially result in low DO levels. Based on this finding, the District modified the design of Project equipment to allow DO levels to be adjusted during low-flow operations. To offset the reduced aeration that could occur with water flowing through the powerhouse, flow tubes will be equipped with aeration vents to increase DO during critical periods. After high flows have receded in the early summer, DO levels will be monitored to determine when the aeration vents should be opened.

BLM further requested that the District address the potential to enhance warm-water bass and perch fisheries in the pool reservoir upstream of the dam. The District has already conducted studies in the reservoir that address warm-water fishes (Exhibit E.3.2.1 of the license application). Reservoir sampling indicated that resident bass and perch are extremely small and would not be of a suitable size to attract sport fishing. Exotic warm-water species such as bass, yellow perch, and common carp may spawn in the shallow margins of the reservoir, but given the low number found in the reservoir these are more likely the result of reproduction in upstream areas of Palmer Lake. In addition, Conference Tribes of the Colville reservation (“CCT”) and the National Marine Fisheries Service (“NMFS”) have expressed concern regarding efforts to expand populations of exotic warm water fish such as bass and perch. These fish are predators and consume small-sized native species. Population expansion of warmwater fish is not compatible with the goals of managing native fish populations and could be detrimental to native fish species upstream of the reservoir, in the reservoir and downstream of the reservoir. Fish species of concern would be mountain whitefish in and above the reservoir and salmon and steelhead downstream of the reservoir. Mountain whitefish, a native fish, already provide a sport fishery in the reservoir area. Proposed PM&Es provide additional habitat for spawning whitefish. Chiselmouth and northern pike minnow in the reservoir are currently at sizes that would provide a sport fishery.

The BLM has also requested that the District provide further study and design for the location and design of the spawning channel. The BLM would like the spawning channel located near areas of the Similkameen where natural anadromous spawning occurs. The District has advanced the design and potential location of the side channel through field investigation and consultation with local fisheries biologists including CCT. The District expects to undertake further study and design for the spawning channels post license issuance.

BLM has indicated its primary concern regarding fisheries and fish habitat is that spawning habitat below the Similkameen Falls be maintained and possibly improved. The BLM is concerned that the raising of the crest gates will cause a change in flow downstream of the dam. This issue was evaluated in the in Exhibit E, Subpart E.3 of the FLA. The Enloe Project is a true

run of the river operation. When the crest gates are raised in early summer, the operation will take place slowly and changes in water surface elevation downstream will be undetectable from natural flows entering the Project. If the units happen to shut down during an emergency situation, flows would immediately spill over the dam. Any interruption in flow would be extremely brief and unlikely to be detected downstream at the first known spawning site.

The District agrees with BLM that the primary focus of the PM&E measures is on the anadromous salmon and steelhead spawning downstream of Similkameen Falls. The District has included many of the PM&E's included in the license application to benefit fish habitat downstream of Similkameen Falls. These include: a spawning channel, gravel augmentation, fish protection measures in the tailrace, vents on flow tubes to increase DO, passing woody debris around the dam, and monitoring of water quality to ensure detrimental effects are not found downstream of the Project.

The BLM is concerned about the location, timing and potential impacts of blasting. Blasting and its potential effects are discussed in the in Exhibit E, Subpart E.3 of the FLA. The proposed PM&E measures to minimize effects such as timing of blasting, monitoring, and barriers to limit the effects of the percussion wave are discussed in E.3.2.3. The District is in the process of preparing a blasting plan to provide additional information on the protective measures that are planned to avoid injury to salmonids during this phase of construction. The blasting plan will be submitted to agencies and tribes for comment and submitted to FERC with responses to FERC's AIR's.

Wildlife and Vegetation Resources

The BLM stated that the wetland and riparian mitigation does not address impacts or enhancements to wetlands, fisheries, wildlife, botany, or recreation as a consequence of increased surface water elevation of the reservoir (e.g. wetlands above the ordinary high water line of the reservoir may function more properly than those connected to the river). BLM asserted that off-channel wetlands or ponds will provide breeding habitat for amphibians not affected by warmwater fish.

As indicated in the responses to comments in the license application, although the future low-water elevation with crestgates will be higher than the current low-water elevation, the high water elevation will not change. No important effects caused by increased surface water elevation were identified that would require mitigation. No off-channel ponds or wetlands not currently connected to the river at high water were observed. Thus, there are no off-channel ponds currently unaffected by warm-water fish that would become affected under future operating conditions, nor are such ponds expected to develop under future operating conditions.

The BLM has requested that effects of the powerline(s) associated with the Project on wildlife should be assessed. To avoid potential impacts from the Project power transmission line, the District proposed in Section E.3.3.3 of the license application that the single transmission line pole that is located within the FERC Boundary will be constructed or modified to prevent raptor electrocutions. Due to the shortness of the Project transmission line, no other effects are expected.

National Park Service (NPS) Study Requests

The NPS has no lands under its jurisdiction within or near the Project boundary at this time. The District received a letter from NPS on the DLA, in addition to this letter to FERC. A response to comments from the NPS on the draft license application is provided as part of the Enloe DLA Comment Response Table, an appendix contained in Volume 3 of the filing (the NPS letter is also provided in the subsequent appendix in the same volume).

The NPS's response to FERC Notice Soliciting Additional Study Requests repeats some of the same general comments that were previously made in commenting on the DLA. These comments were addressed as described in the preceding paragraph. Other comments by the NPS regarding recreation are being handled through a consultation process that was initiated as part of the District's preparation of a Recreation Management Plan (RMP), as described above for the BLM study requests. Following is the District's response to the specific study requests contained in the NPS October 31, 2008 letter.

Aesthetic Flow Evaluation

The NPS request for an aesthetic flow evaluation study is similar to the study requested by the BLM (above), although the NPS provides more detail regarding the requested study. The District has prepared an analysis of how often flows would be spilled over the dam in different types of water years (wet, average, dry), and the amounts of those flows, similar to that requested by the NPS. The District will provide this analysis to the NPS and other parties requesting this analysis.

With regard to the request for further evaluation, as noted in the response to BLM above, this study is not needed. An evaluation of aesthetic effects has been done, showing simulations of views of the Similkameen River with no spill over the dam from Key Observation Points 3 and 4 in Exhibit E.8 (pages E.8-20 to E.8-23). The District will conduct additional simulations at the recreational sites, as described in the response to the BLM study requests.

Also, as noted in FERC's letter addressing AIR's to the District dated October 28, 2008, an aesthetic PM&E addressing the effects of dewatering is referenced on page E.8-29, but was not provided. This PM&E was not developed due to changes in the recreation plan to provide improved access below the dam using an existing trail. The concept was under discussion, but not fully developed prior to the release of the license application. This PM&E will be provided to FERC in response to the AIR's and to the parties requesting an aesthetic flow evaluation and may change the need for further study.

Recreation Needs Analysis

The NPS request for a recreation needs analysis study is similar to the study requested by the BLM (above), although the NPS provides more detail regarding the requested study. As noted above in the response to the BLM request, the District agrees to this request and will perform a recreation needs analysis (RNA). To clarify, the RNA will address current and future use of the lands within the Project boundary, in light of recreation trends and the reasonably foreseeable development of other recreation amenities in the vicinity. It will forecast future recreational demand and address integration with the Greater Columbia Water Trail. It will not address integration of trails and other recreation use areas that lie outside the Project boundary and are

not affected by the Project. The District does not agree that a carrying capacity analysis is warranted, as there is no information to suggest the level of use that approaches the area's carrying capacity for recreational use. If the RNA forecasts such a level of use, this portion of the study request may be discussed further. A noise assessment is not needed, as there will be no significant sources of noise associated with the Project. The RNA will focus on trends in recreation use and demand, and not on particular facilities or improvements, such as trails or a footbridge. It will be accomplished through analysis of existing data, and will not entail the collection of additional recreational user surveys. However, recreation managers will be interviewed as requested. The recreation needs analysis will be completed during the first quarter of 2009.

Washington Department of Fish and Wildlife (WDFW) Study Requests

Townsend's Big-Eared Bat Surveys

The potential presence of Townsends' Big Eared Bats (*Corynorhinus townsendii*) in the vicinity of the Project is a new issue; it had not been raised in comment letters or investigations completed during the development of the license application. The WDFW letter references information collected by Neal Hedges, a biologist retired from the BLM. In discussion with Mr. Hedges, the District determined that neither the powerhouse nor the penstock was likely to provide bat habitat, but bats may be present in irrigation canal tunnels affected by the relocation of the Project access road. Mr. Hedges believes the bats use the tunnels primarily for night roosting. He did not think this was a bat maternity site. Although it is not clear that any tunnels occupied by bats would be demolished, construction activity associated with relocation of the road may disturb bats if they are present. WDFW requests that new surveys be completed to determine if bats are present. Since bats may use the tunnels sporadically as night roosts, the failure to find bats in a short-term sampling program (especially during the fall and winter months) would not necessarily indicate that bats are not using that habitat. Rather than conduct surveys that may be inconclusive, the District proposes to assume that the bats are present in the tunnels and mitigate any effects to them by installing bat houses in appropriate locations. The District will consult with WDFW, BLM, and the U.S. Fish & Wildlife Service ("USFWS") regarding the type, location and placement of the bat houses. The District proposes to provide bat housing units approved by Bat Conservation International. This additional PM&E would consist of the installation of four bat houses, each having the capacity to house 50 to 100 bats at locations to be determined in consultation with the foregoing agencies.

American Rivers Study Requests

The District received a letter from American Rivers on the DLA, in addition to this letter to FERC. A response to comments from American Rivers on the DLA is provided as part of the Enloe DLA Comment Response Table, an appendix contained in Volume 3 of the filing (the NPS letter is also provided in the subsequent appendix in the same volume).

The American Rivers response to FERC Notice Soliciting Additional Study Requests repeats some of the same general comments that were previously made in commenting on the DLA. These comments were addressed as described in the preceding paragraph. Other comments by American Rivers regarding recreation are being handled through a consultation process that was

initiated as part of the District's preparation of a Recreation Management Plan (RMP), as described above for the BLM study requests. Following is the District's response to the specific study requests contained in the American Rivers October 31, 2008 letter.

Fish Passage, Historical Range of Anadromous Fish and Habitat Suitability Study

The study requested would evaluate the historic range of anadromous fish, fish passage at Enloe Dam, and the relative benefits to anadromous fish. The District sees no current benefit in conducting this study. The Project description and PM&E's were developed in consultation with Tribal interests directly affected by the Enloe Project (the CCT and the First Nations in Canada), the State and federal agencies charged with managing natural resources in the vicinity of the Enloe Project (NMFS, USFWS, BLM, WDFW, WA Dept. of Ecology), and local governments. None of these parties have required passage of anadromous fish over Enloe Dam as part of the Enloe Hydroelectric Project. Should that consensus change in the future, passage could be considered in the context of a proceeding to reopen the license in that regard. The conduct of this study would not provide information needed by FERC or other resource or regulatory agencies that would be necessary for the evaluation or the determinations that these agencies need to make to complete the consideration and processing of the District's application. This is evidenced by the fact that none of the agencies with mandatory conditioning authority over the project or those considering the effects on listed species have requested such a study. In fact, the CCT and the First Nations of Canada, as well as the Provincial Government of British Columbia have all gone on record in this proceeding and in past proceedings to object to the inclusion of fish passage structures to move anadromous fish over Enloe Dam.

Aquatic Resources and Habitat Flow Study

American Rivers is requesting a study to identify the effect expected for the portion of Similkameen Falls that will cease to carry flow during portions of the year when the river flow would pass down the penstock, through the turbines to be released into the pool just below the falls. The District has conducted a study to identify the effects associated with this portion of the Project. The potential effects are described in Exhibit E.3.3 pages E.3-36 to E.3-37 of the license application.

The 370 foot long bypass reach lies between the toe of Enloe Dam and the pool below Similkameen Falls where powerhouse outflow rejoins the river. The portion of reservoir outflow that is released through the proposed power plant will bypass this reach. Flow in this reach would therefore be reduced by up to 1600 cfs when both generating units are operating, resulting in no flow when river flow is less than 1600 cfs. The bypass reach consists of a scoured bedrock sheet with extremely poor fish habitat. No fish were observed using the area during licensing surveys. The relatively short length of this reach, its limited habitat diversity, and its inaccessibility to downstream fish populations, indicate a very low potential for the bypass reach to sustain fish populations or contribute to downstream fish populations. The biological populations that would be adversely affected include macroinvertebrates and algae. American River states incorrectly that the license application fails to consider mitigation for the loss of habitat. Mitigation for this loss of habitat is achieved through the creation of additional riverine habitat in wetted side channels that will be constructed as part of the project. This PM&E FISH-10 is described on pages E.3-50 to E.3-51 in the license application.

Aesthetic Flow Evaluation

American Rivers has repeated the study request made by the National Park Service. This study is not needed. Please refer to the response made to the National Park Service request, above.

Recreation Needs Analysis

American Rivers has repeated the study request made by the National Park Service. The District has agreed to develop a recreation needs analysis. Please refer to the response made to the National Park Service request, above.

Value of Generation

American Rivers requests an economic analysis that would incorporate measures that are not proposed to be implemented at the Project, including fish passage. The District believes such an analysis would serve no purpose. The analysis of Project Cost and Financing presented in Exhibit D of the license application is complete and accurate.

With regard to the climate change issue raised by American Rivers, no forecast exists of potential changes in river flows that may be associated with climate change that is sufficiently reliable to prudently use for a Project economic analysis.

Greater Columbia Water Trail Study Requests

The Greater Columbia Water Trail stated its support of the Aesthetic Flow Evaluation and Recreation Needs Analysis studies requested by the NPS, and the three years of recreation use survey requested by the BLM. Responses to each of these study requests are provided above, for the respective agencies.

Okanogan Borderlands Historical Society

The Okanogan Borderlands Historical Society stated its support of the Aesthetic Flow Evaluation and Recreation Needs Analysis studies requested by the National Park Service, and the three years of recreation use survey requested by the BLM. Responses to each of these study requests are provided above, for the respective agencies.

CERTIFICATE OF SERVICE

I hereby certify that I have on this day served the foregoing document by email or first class mail postage prepaid upon each person designated on the official service list compiled by the Secretary of the Commission in this proceeding.

Dated at Washington, DC this 25th day of November 2008.

Manuel Sandoval

Legal Assistant

Law Offices of GKRSE

1500 K Street, NW, Suite 330

Washington, DC 20005

APPENDIX B

Recreational Resource Report Guidance

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Recreational Resource Report Guidance

This Recreational Needs Assessment is guided by the need to provide certain information in a FERC license application for a major project on an existing dam is described in 18 C.F.R. 4.5.1. As part of the application, an environmental report must be prepared and submitted which contains reports on a variety of environmental resources ranging from historical and archeological, to recreational resources, among others.

GUIDING REGULATIONS

The following excerpt from 18 C.F.R. 4.51 describes the required content of the recreational resources report:

*(5) **Report on recreational resources.** The report must discuss existing and proposed recreational facilities and opportunities at the project. The report must be prepared in consultation with local, state, and regional recreation agencies and planning commissions, the National Park Service, and any other state or Federal agency with managerial authority over any part of the project lands. Consultation must be documented by appending to the report a letter from each agency consulted indicating the nature, extent, and results of the consultation.*

(i) A description of any existing recreational facilities at the project, indicating whether the facilities are available for public use;

(ii) An estimate of existing and potential recreational use of the project area, in daytime and overnight visits;

(iii) A description of any measures or facilities recommended by the agencies consulted for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity (including opportunities for the handicapped), and for the purpose of ensuring the safety of the public in its use of project lands and waters;

(iv) A statement of the existing measures or facilities to be continued or maintained and the new measures or facilities proposed by the applicant for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity, and for the purpose of ensuring the safety of the public in its use of project lands and waters, including an explanation of why the applicant has rejected any measures

or facilities recommended by an agency and described under paragraph (f)(5)(iii) of this section; and

(v) The following materials and information regarding the measures and facilities identified under paragraphs (f)(5)(i) and (iv) of this section:

(A) Identification of the entities responsible for implementing, constructing, operating, or maintaining any existing or proposed measures or facilities;

(B) A schedule showing the intervals following issuance of a license at which implementation of the measures or construction of the facilities would be commenced and completed;

(C) An estimate of the costs of construction, operation, and maintenance of any proposed facilities, including a statement of the sources and extent of financing;

(D) A map or drawing that conforms to the size, scale, and legibility requirements of § 4.39 showing by the use of shading, crosshatching, or other symbols the identity and location of any facilities, and indicating whether each facility is existing or proposed (the maps or drawings in this exhibit may be consolidated); and

(vi) A description of any areas within or in the vicinity of the proposed project boundary that are included in, or have been designated for study for inclusion in, the National Wild and Scenic Rivers System, or that have been designated as wilderness area, recommended for such designation, or designated as a wilderness study area under the Wilderness Act.

APPENDIX C

Recreation Participation by Sociodemographic Groups

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Recreation Participation by Sociodemographic Groups

The most complete source for recreation trends and analysis is the book *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends*. This section summarizes the analysis from an article in this book, "Outdoor Recreation Participation Trends," (Cordell *et al.* 1999) which discusses the differences in participation rates among different socioeconomic and demographic groups. The focus of this section is not the actual participation rates for each group (primarily because the data is from the 1990s), but instead on how those participation rates differ among age groups, races, or other demographic or socioeconomic categories. The main goal of this appendix is to show that changes in demographics play a significant role in projecting future recreation rates. Socio-demographic trends were used to inform the projections of future recreation use at the Project site (discussed under the heading "Projections for the Project Site" in this report). The socio-demographic trends of various recreation activities are discussed below.

FITNESS ACTIVITIES (RUNNING, JOGGING, BIKING, WALKING)

Participation rates for fitness activities are relatively consistent among age groups, tailoring off only at the 60 and over age group. Rates are also fairly consistent among ethnic groups. Whites have a 70 percent and African Americans have a 60 percent participation rate in fitness activities, and both groups report enjoying walking the most. Income, education, and the number of people in a household are all positively correlated with fitness activities, although walking starts decreasing when incomes surpass \$100,000 or when a household has more than five people.

VIEWING ACTIVITIES (NATURE CENTERS, HISTORIC SITES, BIRD WATCHING, WILDLIFE AND FISH VIEWING, SIGHTSEEING, BEACH, WATER-BASED NATURE STUDY)

Participation rates are similar among all age groups up to age 50, where the rates start to decrease. In the less strenuous viewing activities, the participation rates increase with age group until the 50 years and older group, where the rates start to decline. Whites are more likely to participate than African Americans (80 percent to 62 percent), while going to the beach is the most popular of these activities for all ethnic groups. Income, education, and size of household (up to four members) are all positively correlated with viewing activities, although bird watching was less affected by income.

SNOW AND ICE ACTIVITIES (ICE SKATING, SNOWBOARDING, SLEDDING, DOWNHILL SKIING, CROSS-COUNTRY SKIING, SNOWMOBILING)

Participation rates are consistent in the 16 to 39 year old age group, and they start decreasing steadily in the later age groups. Whites and men are more likely to participate than other ethnicities or sexes, although sledding and downhill skiing were the most popular of the snow and ice activities among all ethnicities and sexes. Income and household size (up to four) are both positively correlated with snow and ice activities, with downhill skiing being the most influenced by those factors. Having a college degree also increases participation.

CAMPING (DEVELOPED AND PRIMITIVE)

Camping participation rates decrease slowly with age groups, as the 16 to 24 age group has the highest rate with each preceding age group decreasing slightly. Higher percentages of people participate in developed camping than participate in primitive camping, while men have higher rates than women and whites have the higher rates than the other ethnic groups. Income was positively correlated up to the two highest income levels, where it started to decrease, and education (except those with a college degree) and household size were positively correlated as well.

HUNTING

Hunting is most popular among the younger age groups, males, whites, and higher income groups. It was also positively correlated with household size and negatively correlated with education, although migratory bird hunting was an exception for both.

FISHING

Fishing participation rates are constant among the 16 to 49 year old age groups, then decrease in the next two groups. Whites and males are more likely to fish than other ethnic groups or females, although the difference between sexes is less than that of hunting, and all groups prefer freshwater fishing. Income and household size (up to four) is positively correlated with fishing (except for the highest income group), while education was negatively correlated.

BOATING ACTIVITIES

Boating participation rates are highest for the 16 to 29 year old age group, males (33 percent compared to 25 percent for females), and whites. Motor boating is the most popular boating activity for all groups. Boating has a significant positive correlation with income (sailing and waterskiing four times higher and canoeing and motor boating three times higher in the highest income group compared to the lowest), education is positively correlated, while household size is positively correlated until it reaches five people.

SWIMMING ACTIVITIES

Income, education, and household size (up to four members) are mostly positively correlated with swimming participation rates.

OUTDOOR ADVENTURE ACTIVITIES (HIKING, ORIENTEERING, BACKPACKING, MOUNTAIN CLIMBING, ROCK CLIMBING, CAVING, OFF-ROAD DRIVING, HORSEBACK RIDING)

Outdoor adventure activities are highest among the 16 to 20 year old age group and decrease beyond this age group. Whites and Asian-Americans participated more often than African-Americans, males slightly more than females, and all groups participated in hiking foremost followed by off-road driving. Income (especially in horseback riding), household size, and education are all positively correlated with outdoor adventure activities.

SOCIAL ACTIVITIES (YARD GAMES, PICNICKING, FAMILY GATHERING)

Social activities are consistently high for all age groups 16 to 49, sexes, and ethnicity groups. They increase steadily with income up to the middle income range (\$25,000 to \$49,000), and then hold steady. Household size (up to four members) and education levels are also positively correlated with participation in social activities.

SUMMARY

The differences in recreation participation among socioeconomic and demographic groups are generally consistent among the types of activities. The younger age groups usually have the highest participation rates. There is a steady decrease in participation across ages for more strenuous activities, while the less physically demanding activities are usually consistent in rates up to the 49 year old age group and decrease beyond that age group. Whites are more likely to participate in recreational activities than other ethnic groups, and education, income, and household size (usually up to four members) are mostly positively correlated with recreational activities. This observation is most likely due to differences in disposable income availability and leisure opportunities. The positive correlation between participation rates, and income and education, is also demonstrated by recreation studies conducted by the Outdoor Industry Association (Leisure Trends Group, 2005) and the American Recreation Coalition (Roper Starch Worldwide, 2004). Although most models project a greater diversity in ethnic groups, this should not be interpreted to mean a decrease in participation rates in the future, since those groups will also narrow the gap in income and education levels. There are no clear overall relationships between male and female participation in recreational activities, except that some (like fishing and hunting) still appear to be male-dominated.

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APPENDIX D

Existing Projections

APPENDIX D

Existing Projections

This Appendix describes current and projected future participation rates in Washington State for those recreation activities that are pertinent to the Enloe Project Area. Each recreation activity described below includes a section titled “NSRE” (National Survey on Recreation and the Environment) and a section titled “RCO (Recreation and Conservation Office).” The “NSRE” section describes the 50 year projections for that activity that were published in “Projections of Outdoor Recreation Participation to 2050,” (Bowker *et al.* 1999) along with a short discussion of the basis for the projections. The other section, titled “RCO,” describes the current (2006) participation rates for that activity and discusses the 10 and 20-year projections published in “Estimates of Future Participation in Outdoor Recreation in Washington State” (Interagency Committee for Outdoor Recreation, March 2003).

The most current survey on state recreation participation was conducted by the Washington Recreation and Conservation Office (RCO) in 2006. All of the information on current recreation participation in this Appendix was extracted from that document (Clearwater Research, July 2007). The approach used in the RCO document is based on the NSRE survey data, but amends that approach to tailor projections to Washington State.

1. WALKING

NSRE: The expected growth in walking is 10 percent higher than the growth in population, but no basis for this estimate is provided.

RCO: During 2006, 55.2 percent of the population walked without a pet and 36.4 percent walked with a pet in the average month. Currently, the greatest number of participants is among 35-49 year olds because they comprise the largest part of the population, but older age groups have higher rates of participation. With the 50 to 64 year old age group expected to grow significantly, the low cost of walking, and the sufficient facilities available, RCO agrees with the NSRE prediction.

2. HIKING

NSRE: Hiking participation is predicted to grow at a faster rate than population growth. It is possible that the high growth predictions are due to the ample opportunities for hiking near population centers.

RCO: During 2006, 20.5 percent of the state population participated in hiking activities. NSRE predicts that hiking will grow 23 percent in the next 10 years and 34 percent in the next 20 years. Hiking is dominated by the age group 35 and older and participation is expected to decrease with age. It is expected that the population will experience a significant growth in the older age groups. RCO also reports that there is a lack of growth in the hiking trail inventory, which causes it to estimate lower participation in the future than the NSRE projection, at around 10 percent in the next 10 years.

3. NATURE ACTIVITIES

NSRE: Participation growth in nature activities, which include bird watching, photography, and other forms of wildlife viewing, is predicted to grow at a faster rate than population growth. The largest factor contributing to the increase in nature activities is the increasing age of the population.

RCO: During 2006, in the average month, 32.1 percent of the state population participated in gardening, 31.2 percent in observation/photographing of wildlife, 16.2 percent in gathering or collecting, and 10.4 percent in nature/interpretive centers. Gardening is significantly more prevalent among females and among ages 35 and older. The only significant demographic difference in wildlife/nature viewing/photographing is age, as the largest prevalence is among those in the 50 to 64 age group. RCO concurs with the NSRE estimates, as the resources and facilities for nature activities should increase.

4. SIGHTSEEING

NSRE: Participation growth in sightseeing activities is predicted to grow at a faster rate than population growth, but no basis for this estimate is provided.

RCO: During 2006, at least 57.7 percent of the state residents participated in sightseeing activities, and 42.7 percent went sightseeing in the average month. Half of the sightseeing is done in scenic areas, 30 percent is done in cultural or historical areas, and 20 percent is done in public facilities. The RCO claims that facilities for sightseeing will not change in the next 20 years and the increasing interest in off-road driving will cut into sightseeing recreation. Hence, RCO argue that 10-year and 20-year growth for sightseeing will be only 10 percent and 20 percent, respectively.

5. BICYCLING

NSRE: NSRE provided no explanations for the predictions they developed.

RCO: During 2006, at least 41.6 percent of Washington residents participated in bicycle riding and 32.6 percent participated in the average month. Bicycling participation is most prevalent among children (63.5 percent) and teens (57.7 percent). In that year, 12.1 percent of population rode bikes in urban trails, 5.4 percent in rural trails, and 3.8

percent in mountain or forest trails. RCO agrees with the NSRE projections, with the caution that growth will depend on the growth of participation in the 0-9 age group.

6. PICNICKING

NSRE: NSRE provided no explanations for the predictions they developed.

RCO: During 2006, at least 78.4 percent of state residents participated in picnicking and 48.5 percent participated in the average month. The over-65 age group was significantly less likely to participate in picnicking. The participation rates are consistent among most age categories, and more than half of people report picnicking in undesignated sites, meaning that facilities are not important. RCO agrees with the NSRE projections.

7. WATER ACTIVITIES

NSRE: Although non-pool swimming continues to be the most popular water activity, it will grow at a lesser rate than the others.

RCO: During 2006, the most popular water activity was swimming at a beach (at least 58.4 percent of residents), followed by beachcombing (at least 34 percent of the population) and motor boating (at least 26.7 percent of the population). Inner tubing/floating and canoeing/kayaking/row-boating were also enjoyed by a significant part of the population in the summer months. Water activities are not affected by age or user groups, as facility availability and fishing participation are most important. RCO agrees with the NSRE projections on swimming, but concludes that motor boating participation will only increase by 10 percent in the next 10 years and possibly start declining after that due to slow growth in inventory of boating facilities and a decline in fishing participation. RCO also agrees with the NSRE projections for hand-powered watercraft, since this kind of watercraft has increased rapidly from 1994 to 2001.

8. FISHING

NSRE: The growth in fishing participation rates is predicted to increase at a slower pace than population growth, as the per-capita participation in fishing is forecast to decline 3.5 percent. There is a strong negative relationship between fishing and both urbanization and income, and the predicted increases of these factors are the cause for the slower predicted growth in fishing.

RCO: During 2006, at least 17 percent of the state population participated in fishing from a bank/dock and from a private boat. In the average month, 8.7 percent fished from a bank/dock and 7.4 percent fished from a private boat. Fishing participation does not seem to be affected by age as long as one is considering the adult population, but this could change as the young population grows. Fish availability and user groups are a large factor in fishing trends. Due to less availability of fish, RCO projects that fishing

will actually decline in the future, at rates of 5 percent and 10 percent in the next 10 and 20 years, respectively.

9. CAMPING

NSRE: The large predicted growth in developed camping is due to the fact that the activity is positively correlated to income. The smaller expected growth in primitive camping is due to the expectation of increases in urbanization and non-whites in the population.

RCO: During 2006, the most prevalent form of camping was tent camping with a car or motorcycle, and RV camping. Tent camping with a car had a participation rate of 24.6 percent in the peak month and 8.8 percent in an average month, while RV camping had participation rates of 20.3 percent and 7.8 percent, respectively. Styles of camping are probably determined by age groups, although there are no significant differences in general camping participation rates among the different age groups. In 1990, about 60 percent of campsites were privately owned, according to RCO, and the growth in public campgrounds has been very marginal since. RCO agrees with the NSRE that RV camping will grow, but predicts a slower rate of growth in developed camping due to the fact that the number of people camping has declined over the last 20 years. Primitive camping is highly dependent on the available facilities, and due to the fact that this activity will come under tighter management control over the next 10 years, RCO predicts a growth rate of 5 percent over 10 years.

10. HUNTING

NSRE: The decline in participation rates is due to the increase of nonwhites in the population and the increase in population density.

RCO: During 2006, the hunting with firearms had a participation rate of 10.8 percent in the peak month and 6.7 percent in the average month. The most common type of firearm hunting is target/trap/black powder shooting, followed by hunting big game, hunting birds or small game, and hunting waterfowl. Hunters tend to be male and ages 34 and older. The most significant factors for hunting are the available resources to hunt and the land available to do so. RCO predicts that neither of these will grow, so it agrees with the NSRE assessment of a decline in hunting participation rates.

11. HORSEBACK RIDING

NSRE: Horseback riding is expected to grow faster than population growth, although past trends have not shown a growth of equestrian participation. The activity has a strong positive correlation with income, and since the model predicts a strong growth in income (88 percent over the next 52 years), this is a significant factor in the model's high participation projections. The authors do mention that facility availability was not considered in the model, even though riding groups claim that trails for riding are increasingly scarce.

RCO: In 2006, 7.5 percent of the state population participated in horseback riding during the peak month and 4.3 percent participated in an average month. Children under 10 and teens had the highest participation, with both groups exhibiting a participation rate of about 9 percent. RCO does not agree with the NSRE projections because horseback riding is a rural activity, which will see decreasing land availability with increasing urbanization, , and because equestrian activities have not shown a recent growth in participation. RCO revise the NSRE projections for this activity to about 5 percent over 10 years and 8 percent over 20 years.

12. SNOW-ICE ACTIVITIES

NSRE: Snow-ice activities are projected to increase significantly more than population growth over the next 50 years. The factor most responsible for this growth appears to be the projected increase in income, which is positively correlated with participation in these activities. Income offsets the reductions in supply of facilities and the growth of the nonwhite population (which is negatively correlated with participation in these activities).

RCO: In 2006, the peak month participation rates for Washington residents were 3.7 percent for snowshoeing, 31.8 percent for snow play (sledding, inner tubing, etc.), 8.6 percent for snowboarding, 14.1 percent for skiing, 4.8 percent for snowmobiling, and 10.3 percent for ATV riding. Children under 10 showed the greatest inclination toward snow play, teens showed the greatest preference for ATV riding, and the 35-49 age group showed the greatest inclination toward skiing. RCO agrees with NSRE that these activities are becoming more popular and agrees with their 10 year estimates for that reason. They argue, though, that it will be tough to increase facilities and crowding out will occur in the long run as the sport becomes more popular; hence, the 20 year NSRE projects should be “used with caution.”

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APPENDIX E

Records of Correspondence: Recreational Manager Interviews

**Enloe Dam Power Project
Record of Correspondence**

Date: January 21, 2009

Recorder: Lee Elder, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Jon Knechtel, Pacific Northwest Trails
Director of Trail Management, (360) 391-0788

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

The PNT runs through the area currently and that legislation to make the PNT a National Scenic Trail has passed the Senate and is now before the House. He expects Obama to sign it into law soon after trying to get designation since 1971. Currently there's lots of fishing and mining and he envisions more people coming to use the recreation area. He believes that the picnic and RV area should draw some people once they're developed. It is also his understanding that the PUD is going to limit the length of stay at the RV park to 14 days. In the future he expects cross-country skiing to occur on the new section of the trail (Oroville-Nighthawk trail) during the winter months. Currently there are 50 or so through hikers a year on the Loomis-Oroville section of the trail. Some of the hikers are from Georgia, California, England, Germany and Canada. The point of origin for most of the hikers using the trail are local and most are between 25 and 30 years of age.

Most of the people visiting the Enloe area are on their way to another location and some of the other sites they may be visiting are Oroville and Okanagan.

Once the trail becomes a National Scenic Trail he expects as many as 1,000 through hikers a year. Currently through hikers stay at bed and breakfasts while in the Oroville Area. Over the first 20 year period there were about 45 through hikers using the PNT trail. In 2003 it had increased to around 60. He

stipulated that there has been an increase in the number of people getting out and hiking and he expects that on the new trail there should be mothers walking with children and bikers with children. He also expects to see a larger number of disabled people using the trail given that it will be ADA accessible.

The operation of the dam should enhance recreation. You're going to be increasing recreation with the RV park and raising the water level in the reservoir will not be an issue.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 9, 2009

Recorder: Lee Elder, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Ted Murray, Senior GIS Analysis, Okanagan County
Office of Planning and Development, (509) 422-7118

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

Currently, the first 3.5 miles of the Oroville-Nighthawk trail are going through the paperwork stage. An engineer is working on the design and the trailhead is located in downtown Oroville. The Borderlands Historic Society is interested in placing placards along the trail due to historical aspects of the area. For example, the first gold strike in Washington was at Shankers Bend.

The trail is currently planned out to just outside of the PUD boundary. This trail will offer something new to Okanagan County and should also be popular with cross country skiers. He envisions that people that want to ski it would start in Nighthawk and travel to Oroville since there is a 1 percent downhill grade in that direction. Currently not many people set out to hike the entire Pacific Northwest Trail (PNT) and the Loomis-Oroville section has very little visitation. However the occasional bike group does use the trail. He doubts that in the future it will be as popular as the Pacific Crest Trail. Once the new section (Oroville-Nighthawk section) is put in it will see quite a bit of traffic. The cross country team at the local school wants to use the new section of the trail. Mr. Murray is working with the Forest Service to develop a trail head two miles south of Oroville that runs east to Mt Hall, which is a twelve mile trail that is popular with back country horse riders.

Molson museum gets a surprising amount of visitors and Osoyoos Lake is becoming some what of a destination.

Mr. Murray was familiar with the Recreational Resources study that was completed previously for the Enloe dam and remembered that the number of visitors in that study was a believable number, but he believed that using population increase as the estimated visitor projections would be too low. It seems to him that a lot more people are participating in recreational mining and out doing Sunday driving in the Enloe area. However, in the Oroville area it seems that local visitation is about the same, while it seems more people have been coming from out of state.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 9, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.
List Name and company of person recording the call

Contact: Rich Bowers, Hydropower Reform Coalition, NW
Coordinator, (360) 303-9625
List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.
Provide brief statement describing purpose of call

Summary of Conversation:

The project area is remote with few notable attractions nearby. However, the proposed Oroville-Nighthawk and Greater Columbia Water Trails will increase visitation to the area. Currently, there is some whitewater boating above and below the dam, but not nearby the dam itself. Hiking and boating also occur in the spring summer, and fall, but recreation and visitation decrease dramatically in the winter.

Not many people visit the area now, and those that do tend to be local. Once the trails are developed, use by both locals and non-locals should increase. Local changes in recreational activities likely follow national trends, which show that hunting and fishing have decreased but hiking and boating have become more popular recreational activities.

The project has the potential to both help and hinder recreation. If access roads in the area are improved and a portage trail developed, recreational opportunities would be enhanced. On the other hand, if operation of the dam reduces the waterfall, visitation for sightseeing purposes could decrease.

Mr. Bauers recommended we speak with local tribal members, Susan Rosebrough at NPS, and Tom O'Keefe at American Whitewater.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 21, 2009

Recorder: Lee Elder, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Susan Rosenbrough, National Park Service
Rivers, Trails and Conservation Assistance, (206) 220-4121

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

Mrs. Rosenbrough was not all that familiar with the recreational trends in the Enloe Area since she does not live in the area. She expressed that the main attraction to the area will be the water trail as well as the development of the new Oroville-Nighthawk Trail. Currently she thinks that boating and mining are popular in the area.

Recreation is locally based and that people are likely visiting Miner's Flat. She feels that visitation will increase in the future with the development of the new trails. Some minor improvements at Miner's Flat would improve the takeout at that location.

The development of the Enloe hydropower project will create more flat water and she expects kayakers and canoeist to start taking out at Miners Flat rather than at Shankers Bend. Less people may come since there will be less water coming over the falls.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 13, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Tom O'Keefe, American Whitewater, Pacific
Northwest Stewardship Director, (425) 417-9012,
okeefe@americanwhitewater.org

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and
expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

Mr. O'Keefe has not yet had a chance to visit the project site and is not very familiar with the area. Although he did not feel he knew enough information to answer most of the questions, Mr. O'Keefe hopes that the licensing process will answer the remaining questions about recreation in the project area. Specifically, he expressed a desire that another recreation survey on users be performed.

Mr. O'Keefe stated that, generally, "there is a lot of interest in river-based recreation." He believes that the proposed Greater Columbia Water Trail and Oroville-Nighthawk Trail will enhance recreational opportunities within the area.

Mr. O'Keefe recommended we speak with Julie Anderson of the Washington Water Trails Association (206) 545-9161, as well as the outfitter that operates out of Shanker's Bend. Additionally, Mr. O'Keefe said he would send me a report on Whitewater Resources in the North Cascades that should have some information on recreation on the Similkameen River.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 14, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.
List Name and company of person recording the call

Contact: Jim Harris, Washington State Parks and Recreation
Commission, Eastern Region, Regional Director, (509) 665-
4310
List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and
expectations for meeting future recreational needs.
Provide brief statement describing purpose of call

Summary of Conversation:

The river is the main recreational attraction in the area. Recreational mining and some commercial mining occurs in the area, although this is a specific and not large group of people. Whitewater rafters have an interest in free flow water below the dam and obtaining access to it. GCWT is concerned with future use of water trails. Having the water trail pass through the dam area would enable users to go on to the Okanogan River and, from there, to the Columbia River. There is no good information yet on water is like below the dam: if it's too shallow, too rough, with too many hazards.

There are two main interests that canoists and kayakers have in project area:

- 1) The development of access to the reservoir so that canoists and kayakers can put in there and then paddle upstream for a few miles before coming back to the dam and pulling out. Pullout points every 5 miles or so would be useful, along with restroom facilities at those points.
- 2) If the Greater Columbia Water Trail passes through dam, a portage trail to access water below dam would be necessary.

There are hiking trails in the area. There is an interest in developing a nonmotorized trail on the old railroad grade, but

it's hard to evaluate what the demand for that trail will be yet. There is value in preserving the ability to develop these trails and other recreation in the future, even if not today.

The area gives people a sense of being in a remote location, but there is reasonably easy access to the area because it is within a day's drive of population centers.

Hunting and fishing are other activities that occur in the area. Maintaining fish habitat now and in the future is important for fishing. Some of the recreational activities in highest demand are passive activities, which include photography, walks, and birdwatching. These activities are in high demand in Washington and demand is growing; this area has what's needed for these activities to take place.

He doesn't know specifically where these activities occur and suggests we speak with state Fish & Wildlife. However, he does know hunting takes place in area above where dam is and there is no connectivity from hunting areas to the project site. Birdwatching and photography would take place closer to the river.

There is not high recreational demand in the winter. In the fall there is hunting for deer. In spring, birdwatchers watch migrating birds and photographers take advantage of spring blooms.

There are no studies to definitively say who comes to recreate in the area. It's a new area for water activities because it's difficult to access and there are a lot of hazards, although it's more protected than the Columbia River is. Generally, only experts navigate the river. Right now there are not many boaters around the dam.

Most visitors to the area are from within a 60 mi radius. Due to the primitive nature of the area, these visitors are predominantly males in their early to mid 20s to their mid 30s and not limited to a particular social class. However, for mining activities, most recreationists are older persons, predominantly male, and very localized. Miners are not limited to a particular social class either.

Mr. Harris views the project area as more of a destination, although people only stay for a short period of time. People are generally not on their way to visit another place, because there is not much else in the area to visit. There are no official statistics, but he estimates that there are 20,000 visitations per year for all activities within a mile radius of the dam. Visitation has neither increased nor decreased over the past few years. However, the types of recreational activities taking place may have changed; there may be growth in quad-style ORV four-wheelers. This is a remote area that allows ORV use and is therefore attractive to these types of recreationists.

The design of the current dam is hazardous. It doesn't have a raceway that spills over the dam, and this is a hazard in the water for boaters. However, if the dam were raised it would encourage recreation because it would be safer for boaters. Also, if a larger dam and compound resulted in an increase in flows below the dam during the summer, this could benefit water-based recreation. Water-based recreation will increase if access onto reservoir is developed. If a formal land trail system is developed, birdwatching, hiking, and photography will increase (O-N trail).

Mr. Harris recommends we speak with the regional office of Washington State Fish & Wildlife in Ephrata to learn about potential impacts to fish habitat from the proposed project. In addition, Jim Eychaner at Washington State Recreation and Conservation Office may have information about recreation in the area.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 14, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.
List Name and company of person recording the call

Contact: Jim Eychaner, Washington State Recreation and Conservation Office, Outdoor Resource Planner, (360) 902-3011, jim.eychaner@rco.wa.gov
List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.
Provide brief statement describing purpose of call

Summary of Conversation:

The main draws to the area for recreation are the area's rural character and the river. Focus groups have shown that people prefer to recreate on or near water as much as possible. Current recreational activities include fishing, hunting, some walkers on the rail bed, sightseeing, and informal camping. These activities vary based on season. In the summer, boating and fishing are popular activities, while sightseeing and camping are popular in the months of August and September. Recreation and visitation drop precipitously during winter, but winter activities do include walking, snowmobiling, and cross-country skiing.

Most recreational users are locals. Typical visitors are Caucasian, middle-aged couples or individuals that are stopping by the area on their way to places like the Okanogan National Forest, Sinlahekin Wildlife Area, Palmer Lake, and DNR Trust lands.

Mr. Eychaner does not anticipate that recreational use will change significantly in the future unless a concentrated effort is made to attract more people to the area. He warns that if new recreational facilities are constructed, the sites must be patrolled so that vandalism and dumping does not occur. The operation of the dam itself could impact recreational use around the dam if water temperatures are raised (affecting fish

populations), flatwater is extended (not attractive to rafts, but is to motor boats), or if operation results in water drawdown above dam (attracting off-road vehicles to the exposed mudflats). Completion of the Oroville-Nighthawk Trail, if well publicized, would also attract more people to the area.

Mr. Eychaner explained that, when determining what the recreational service area would be, the dam could be thought of as a state site. Washington Department of Fish and Wildlife provides simple sanitary facilities, access, and boat launches near many bodies of water in the state. The proposed recreational improvements at the project site would resemble a typical F&W launch site. For state sites, the recreational service area would be within a one hour's drive to the site.

Additional people to speak with include:

- 1) Elvin "Speed" Fitzhugh, Evista Utilities (in Spokane), (509) 495-4998
- 2) Michelle Smith, Chelan County PUD, (509) 661-4180
- 3) Jerri Mickle, Grant County PUD, (509) 754-6754

**Enloe Dam Power Project
Record of Correspondence**

Date: January 16, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Kay Sibley, Okanogan Borderlands Historical Society,
President, (509) 476-2476

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

Recreationists are drawn to the area for birdwatching, fishing, hunting, canoeing, and rafting. Hiking is popular because the area is only a 45 minute drive from Oroville, and yet the area feels very remote. These activities vary by season, with visitation dropping in the winter but snowmobiling and ice fishing occurring. The types of recreational activities have not changed substantially over time; instead, it is mostly that the number of visitors has gone up. However, birding and butterfly watching is on the rise.

The number of people hiking, mining, bird hunting, and using the river has greatly increased in the last 10 years because more people live in the area and are attracted to the free flowing river and good fishing. Special groups come through Oroville, such as a motorcycle group consisting of between 300 and 600 motorcyclists on a rally from Wenatchee to the California border. Some stay in Oroville and may drive by the Similkameen. Bicyclists (around 250) will stay overnight in Oroville, and the Society suggests they bike by the dam and on the railroad. Bicyclists sometimes bike through the project area on a loop from Oroville to Palmer Lake and back. There is also one to two groups of 'speeders' (around 25 people per group) that stay in Oroville and decide to speed on the railroad. Additionally, a Corvette club sometimes drives along the Similkameen.

Besides these groups, visitors are often families with younger children or senior citizens taking time to tour the area on their way to or from Osoyoos Lake, the museum in Molson, or Canada. The Society gives tours of the study area to these types of visitors once a year (approximately 20 people).

If the dam is raised no more than 5 feet (thereby raising water levels around the dam by 5 feet), recreation should not be particularly affected and flatwater would not be extended by much, if at all. The pullout point at Shanker's Bend should not be affected. Development of the Oroville-Nighthawk Trail could attract more people to the area. Already, people are buying retirement homes and weekend getaways in Oroville. If the area becomes a recreational attraction, Oroville should develop a good hotel and some seasonal shops. When asked what types of recreational improvements could be made in the project area, Ms. Sibley suggested a parking lot, boat launch, picnic tables, and interpretive signs. She said national recreational trends are not necessarily indicative of what's going on in the county or local level. Okanogan County residents tend to be "off-beat, eco-friendly" people protective of the areas farms and orchards. Recreational development that threatens the rural character would be opposed.

Additional people we could speak with include Arny Marchan [(509) 476-2440], who has worked with the Okanogan Indians, and George Thorton [(509) 556-2343], who is involved with trails in the area.

**Enloe Dam Power Project
Record of Correspondence**

Date: **January 21, 2009**

Recorder: **Lee Elder, ENTRIX, Inc.**

List Name and company of person recording the call

Contact: **Dave Wallace, Jet Ski Rentals, Extreme Adventures,
509-476-2203**

List name of person contacted, company/agency, and telephone number

Subject: **To identify trends in local recreation activities, and
expectations for meeting future recreational needs.**

Provide brief statement describing purpose of call

Summary of Conversation:

Dave informed me that his partner Ed Lawrence runs the kayaking portion of the business and he is out of town for an extended period. He said that fishing is a major draw for visitors to the area. Specifically, fishing for steelhead up to the old power house at the Enloe dam and for Chinook salmon up to the bridge in Oroville are popular. Rafting occurs below the dam and they put in their rafts below the dam near the powerhouse. Fishing, hiking and hunting occur in the summertime while some people snowmobile in the wintertime. There are more visitors to the area in the summer and there is a Canadian influx in the spring and summer season for camping. He informed me that he is concerned about what may occur to the Osoyoos State Park if Washington State determines that the possible plans for closing, trimming or selling the Osoyoos State Park come to light. During the summer the park is full of RV's and campers all summer long. Many Canadian families come to Osoyoos State Park to boat and that Enloe gets kayakers. Approximately, 50 percent of those people renting kayaks from their outfit are from the Oroville area while 50 percent are from Canada and mostly the visitors to the area are families. He also stipulated that most of the visitors are treating the Oroville area as their primary destination. Some of the sites they may be visiting include Osoyoos Lake, Palmer Lake, Spectacle Lake, Molson Museum and possibly renting horses while in the area. He also said that there is a large housing development with high end homes in it

located on Osoyoos Lake that brings a lot of money into the area.

During the summertime season, which last for 2-3 months their outfit rents 2 jet skis a day on average and 2 kayaks a day. About 50 percent of those go in the direction of the Similkameen and the other 50 percent go to Osoyoos Lake. Visitation to the area has been increasing since 2000, while prior to 2000 visitation was in somewhat of a slump. The recreational activities have remained about the same over the past few years and he anticipates that visitors will continue to do about the same types of activities. He believes that by increasing the water levels within the Enloe reservoir it should increase water recreation and more people would want to come see an operational dam. He also feels that having the Greater Columbia Water trail will increase visitation to the Enloe area.

He suggested that I contact the Oroville Chamber of Commerce as well as Prince General Store.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 21, 2009

Recorder: Lee Elder, ENTRIX, Inc.

List Name and company of person recording the call

Contact: Tim Holder, Hatchery Specialist 3, Similkameen Pond Hatchery.

List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.

Provide brief statement describing purpose of call

Summary of Conversation:

Mr. Holder believes that hunting and fishing are major draws to the area since there are quite a few lakes. In terms of hunting upland bird hunting and deer hunting are the major types of hunting. He also stipulated that Osoyoos and Palmer Lakes attract many water skiers and boaters. Fishing occurs year round unless there is ice on the lakes or streams. There are more visitors in the spring and summer about twice the amount as is seen in the winter. A number of visitors come from Canada to visit Osoyoos and Palmer Lake and many people come from Wenatchee and Omak while a lot of people come from the Seattle area to hunt for deer during the fall. For those visitors that are coming to hunt and fish the area is their primary destination while those visitors that are coming from Canada are passing through. In his opinion visitation has remained about the same over the past few years and that the recreational activities they participate in are about the same. Mr. Holder believes that possibly the operation of the dam may have an adverse effect on Palmer Lake. He is an avid bass fisherman that fishes the lake in the springtime when spring floods cover trees and other vegetation during their spawning time. When he's out fishing the Palmer Lake he notices that sedimentation (dirty water) from the Similkameen backs up into Palmer Lake and he fears that may eventually have adverse affects on sedimentation levels in the lake, but offered that he's not an authority on the subject.

He thinks we should possibly contact Osoyoos State Park as well as the Oroville Chamber of Commerce.

**Enloe Dam Power Project
Record of Correspondence**

Date: January 13, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.
List Name and company of person recording the call

Contact: Diane Priebe, Bureau of Land Management, 509-665-2131.
List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and expectations for meeting future recreational needs.
Provide brief statement describing purpose of call

Summary of Conversation:

Mrs. Priebe feels that fishing, floating and recreating on the river are the primary types of recreation in the area. The unimproved camps, Similkameen Camp and Miner's Flat are popular in the summer. The summer is the busiest part of the year and has little knowledge of wintertime visitation and feels that it's the PUDs responsibility to determine what wintertime visitation to the area is. The point of origin for visitors to the Enloe site is the local area, but a lot of people travel the road near the site. Visitors to the site appear to be more non-family groups while visitors to the upstream recreation sites tend to be families. For those visitors that are participating in fishing or camping she feels that area is their primary destination. The Oroville area is referred to as the 'Many Lakes Area' and some other sites visitors may be visiting include Miner's Flat, Similkameen Camp, Chopaka Lake, Palmer Lake and the historic ghost town of Nighthawk.

Mrs. Priebe didn't have an impression of the number of people that are visiting the Enloe area, but she has visitor counts for sites nearby. From field observations, Similkameen Camp has 1,000 visitors and Split Rock (located on the south side of Palmer Lake) has 15,000 visitors annually. BLM used a vehicle counter at Chopaka Lake to determine that approximately 4,000 people visit the site annually. She contends that visitation has slowly increased for both the BLM sites an Enloe site over the past few years. She feels that there has been a

lot of interest in the rails to trails project and the water trail. One future change in recreation may involve trout fishing if the state follows through on their plan to stock the reservoir with trout. She also envisions that there will a positive impact on recreation with improved access resulting from improving access to the powerhouse. However, there are some question regarding noise and aesthetics.

She feels that there will be an increased demand for the existing recreation sites around the Enloe dam. Specifically, for the existing sites of Similkameen Camp as well as for Miner's Flat boat ramp especially considering that the flat water line will extend upstream of its current locale at Shankers Bend. She also feels that there will be a need for new recreational sites. Specifically, the boat ramp at Miner's Flat and Similkameen Camp and both camps could use improved campsites because of issues surrounding campfires and sanitation.

**Enloe Dam Power Project
Record of Correspondence**

Date: February 4, 2009

Recorder: Katherine Clifford, ENTRIX, Inc.
List Name and company of person recording the call

Contact: Ron Johnston-Rodriguez, Chairman, Greater
Columbia Water Trail Coalition,
List name of person contacted, company/agency, and telephone number

Subject: To identify trends in local recreation activities, and
expectations for meeting future recreational needs.
Provide brief statement describing purpose of call

Summary of Conversation:

Mr. Johnston-Rodriguez stated that he was not that familiar with the Project Area. However, he believed that popular recreation activities were likely to be fishing, hunting, hiking, gold mining, and whitewater rafting (below the Dam), with the majority of recreation taking places in the spring, summer, and fall months. The main draws to the area for recreation are flatwater paddling on the Okanogan and Similkameen rivers. Okanogan County's economy has experienced a decline in the logging and apple orchard industries and the County is therefore attempting to boost tourism to make up for the shortfall. Mr. Johnston-Rodriguez believes that the County will try to target families and young people in its advertising efforts.

The Project Area is "not on the way to anywhere," so most visitors are using the Project Area as a destination. Most recreational use is by local persons, with some drawn from Seattle. Local use may increase as people stay closer to home due to current economic conditions. However, visitors from both the local area and outside of the local area may be drawn to the Project Area by the County's advertising campaign. This may increase demand for existing recreations sites, and increase the already existing need for campsites, pull-ins and take-outs on the river, and outhouses.

Operation of Enloe Dam could affect recreation, depending on how water level changes will affect the shoreline. Development of the Greater Columbia Water Trail is expected to affect recreation by increasing paddler use of the Similkameen River. The Similkameen is unique in the water trails system and "very dynamic in terms of scenery," and the Water Trail will draw attention to these attributes. If pull-out points have been established in the Project Area, it would be USFWS that would know.