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November 6, 2007

Honorable Kimberly D. Bose, Secretary
FEDERAL ENERGY REGULATORY COMMISSION
888 First Street, NE
Washington, DC 20426

Re: **Lake Chelan Hydroelectric Project No. 637-022**
Article 407 – Final Recreation Resources Management and Implementation Plan
dated November 6, 2007

Dear Secretary Bose:

The Federal Energy Regulatory Commission (Commission) issued the “Order on Offer of Settlement and Issuing New License”¹ (License) and “Order on Rehearing”² for the Lake Chelan Hydroelectric Project (Project) on November 6, 2006, and April 19, 2007, respectively. As per the Order on Rehearing, the revised License Article 407 requested the Public Utility District No. 1 of Chelan County, Washington (Chelan PUD or Licensee), to file the following plan for Commission approval.

- Article 407: *Recreation Resources Management and Implementation Plan.*

Within one year of the issuance date of the license, the licensee shall file for Commission approval, a Recreation Resources Management and Implementation Plan, including an assessment of recreational use and needs within the Lake Chelan basin. The plan shall include enhancements set forth in Article 11 (g), (h), (1) – (9), (i), (j), (k), (m), and (p) of the Lake Chelan Settlement Agreement (attached as Appendix A); and the elements set forth.

(a) *Sidewalk, Handrail, and Landscaping under the Dan Gordon Bridge.* The plan shall contain detailed descriptions of proposed measures to stabilize the sidewalk and replace the handrail along the north shore of the Chelan River, under the Dan Gordon Bridge. The plan shall contain a schedule for completing these measures. Beginning within one year of the issuance date of the license, the licensee shall assume responsibility for annual

¹ 117 FERC ¶ 62,129

² 119 FERC ¶ 61,055

maintenance associated with the sidewalk and landscaping along the north shore of the Chelan River, beneath the Dan Gordon Bridge.

(b) *Micro Park Feasibility Study.* The plan shall contain the results of a feasibility assessment for developing a micro park at the following licensee-owned parcels near Water Street near the City of Chelan: parcel #272214662242, #272214662229, and #272214662440. The purpose of the feasibility assessment is to determine if and how a micro park can be developed and whether the lands are needed for project purposes. The feasibility assessment shall include a description of the site topography and any constraints to site development; a description of adjacent land uses; detailed recommendations for developing the site, including costs for developing the site and anticipated benefits and use of the developed site; and an implementation schedule for any development recommendations.

(c) *Modifications for Future Trails.* The licensee shall notify the Commission within 30 days of completing the modifications to the entrances and exits of the Old Mill Park, Manson Bay Park, and Riverwalk Park to accommodate the integration of future trails. Revised exhibit drawings shall be filed, as appropriate, in accordance with Article 301. The 90-day deadline for filing the revised exhibits stipulated in Article 301 shall be referenced to the completion date of the measures.

The Recreation Resources Management Plan shall be developed in consultation with the U.S. National Park Service (Park Service), U.S. Forest Service (Forest Service), Washington State Parks and Recreation Commission, Washington Interagency Committee for Outdoor Recreation, City of Chelan, Manson Parks and Recreation Department, the Lake Chelan Recreation Association, American Whitewater, and the landowners adjacent to the licensee-owned parcels identified in paragraph (b) above. The licensee shall include with the Recreation Resource Management Plan, an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensees' reasons, based on project-specific reasons.

The Commission reserves the right to require changes to the plan. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission

In accordance with the above License requirements, Chelan PUD hereby files the final Recreation Resources Management and Implementation Plan. Appendix G provides documentation of consultation on the completed plan.

Please do not hesitate to contact me or Kris Pomianek (509-661-4186) of my office regarding any questions or comments regarding this plan.

Sincerely,



Michelle Smith
Licensing and Compliance Manager
michelle.smith@chelanpud.org
(509) 661-4180

Enclosures: Original, one hard copy, 8 CDs

cc: Erich Gaedeke

**RECREATION RESOURCES
MANAGEMENT AND
IMPLEMENTATION PLAN**

LICENSE ARTICLE #407

Final

**LAKE CHELAN HYDROELECTRIC PROJECT
FERC Project No. 637**

November 6, 2007



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

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EXECUTIVE SUMMARY

Beginning in 1999, Chelan PUD regularly met with stakeholders in the Lake Chelan Hydroelectric Project area to discuss recreation needs and management objectives, in preparation for a new operating License for the Lake Chelan Hydroelectric Project. The measures addressed in this Recreation Resources Management and Implementation Plan are a direct result of that work and became part of the Lake Chelan Comprehensive Settlement Agreement submitted to the Federal Energy Regulatory Commission (FERC) on October 8, 2003 for a New License for the Lake Chelan Hydroelectric Project No. 637.

FERC issued a New License for the Project on November 6, 2006. License Article 407 directs Chelan PUD to file a revised Recreation Resources Management and Implementation Plan with FERC within one year of license issuance. The Article stipulates that the plan provide details for each required enhancement measure and an implementation schedule pursuant to Chapter 11 of the Settlement Agreement. This plan is to be developed in consultation with the Lake Chelan Recreation Forum as defined under Section 18 of the Settlement Agreement.

This Recreation Resources Management and Implementation Plan has several components. It provides a summary of recreation demand, facility needs and resource capacity, and current recreational sites owned and managed by Chelan PUD. It explains how the plan was developed, describes the make-up of the Lake Chelan Recreation Forum and provides an outline of meetings held and communication provided. In addition, Section 4 of the plan provides a development plan and implementation schedule for the required enhancement measures in the vicinity of Lake Chelan as outlined in the New License.

The Plan was developed based on the following considerations:

- 1) Ongoing Project impacts
- 2) Consistency with study results
- 3) Effectiveness of proposed measures
- 4) Costs (including cost-sharing opportunities)
- 5) Existence of mandatory conditioning authority

The following are recreational measures to be implemented in this Plan:

- 1) Recreation Use Study and Management Plan Review
- 2) Whitewater boating in the Chelan River
- 3) Operation and maintenance of Riverwalk, Shore Access, Old Mill, Manson Bay parks
- 4) Reach 1 Access Trail
- 5) Riverwalk Loop Trail extension
- 6) Sidewalk, Handrail and Landscaping under Dan Gordon Bridge
- 7) Micro parks feasibility study on Terrace Avenue and Water Street
- 8) Reservation of lands
- 9) Modifications for Future Trails

SECTION 1: INTRODUCTION

1.1 Purpose and Scope of the Plan

This Recreation Resources Management and Implementation Plan updates the existing Recreation Resources Management Plan submitted on October 8, 2003, as part of the Lake Chelan Comprehensive Settlement Agreement included with the Application for a New License for the Lake Chelan Hydroelectric Project No. 637.

The Federal Energy Regulatory Commission (FERC) issued a New License for this Project on November 6, 2006. As part of this New License, a number of measures related to recreational enhancements on and around Lake Chelan are required, as described in Chapter 11 of the Comprehensive Settlement Agreement. License Article 407 of the New License directs Chelan PUD to file a revised Recreation Resources Management and Implementation Plan within one year of license issuance to include comprehensive development and implementation details of each recreation measure as outlined below.

Puruant to the Order on Rehearing issued on April 19, 2007, Article 407 is revised to read:

Article 407. Recreation Resources Management and Implementation Plan. Within one year of the issuance date of the license, the licensee shall file for Commission approval, a Recreation Resources Management and Implementation Plan, including an assessment of recreational use and needs within the Lake Chelan basin. The plan shall include enhancements set forth in Article 11 (g), (h), (1) – (9), (i), (j), (k), (m), and (p) of the Lake Chelan Settlement Agreement (attached as Appendix A); and the elements set forth below.

(a) *Sidewalk, Handrail, and Landscaping under the Dan Gordon Bridge.* The plan shall contain detailed descriptions of proposed measures to stabilize the sidewalk and replace the handrail along the north shore of the Chelan River, under the Dan Gordon Bridge. The plan shall contain a schedule for completing these measures. Beginning within one year of the issuance date of the license, the licensee shall assume responsibility for annual maintenance associated with the sidewalk and landscaping along the north shore of the Chelan River, beneath the Dan Gordon Bridge.

(b) *Micro Park Feasibility Study.* The plan shall contain the results of a feasibility assessment for developing a micro park at the following licensee-owned parcels near Water Street near the City of Chelan: parcel #272214662242, #272214662229, and #272214662440. The purpose of the feasibility assessment is to determine if and how a micro park can be developed and whether the lands are needed for project purposes. The feasibility assessment shall include a description of the site topography and any constraints to site development; a description of adjacent land uses; detailed recommendations for developing the site, including costs for developing the site and anticipated benefits and use of the developed site; and an implementation schedule for any development recommendations.

(c) *Modifications for Future Trails.* The licensee shall notify the Commission within 30 days of completing the modifications to the entrances and exits of the Old Mill Park, Manson Bay Park, and Riverwalk Park to accommodate the integration of future trails. Revised exhibit drawings

shall be filed, as appropriate, in accordance with Article 301. The 90-day deadline for filing the revised exhibits stipulated in Article 301 shall be referenced to the completion date of the measures.

1.2 Exhibit R Summary

By way of background the 1976 Lake Chelan Project Exhibit R Recreation Plan identified four sites on the Lake Chelan Reservoir for recreational development. The first three, Chelan Riverwalk Park, Manson Bay Park, and Old Mill Park, were completed by Chelan PUD and opened to the public during the mid-1980s. Chelan PUD also contributed funding for a fourth site, the Lake Shore Access Site, located near downtown Chelan. That site, owned by the City of Chelan, provides public access to a swimming beach on Lake Chelan for Chelan residents and visitors.

These recreation sites represent Chelan PUD's commitment to providing recreational facilities and access to Lake Chelan (as-built drawings of these the four sites are provided in Appendix A to this plan). The four sites are described below. The location of these recreation sites, as well as other public recreation sites in the Project Area is shown on Figure 1.

Chelan Riverwalk Park

Located on the Chelan River in downtown Chelan, this 12-acre park consists of a one mile scenic loop trail, year-round boat launch, short-term moorage, boat trailer parking, grass play field, restrooms, picnic areas, and a picnic shelter. Chelan Riverwalk Park is owned and operated by Chelan PUD.

Old Mill Park

Located two miles east of Manson, this 20-acre site includes nine acres of developed park, and features a four-lane boat launch (accessible year-round), short-term moorage, a marine dump station, boat trailer parking, picnic area, fish cleaning station, and restrooms. Access to this site is from Highway 150. Old Mill Park is owned by Chelan PUD and managed by the Manson Park and Recreation District.

Manson Bay Park

Located on the north shore of Lake Chelan, in downtown Manson, this six-acre park features a lake overview, swim area, picnic area, restrooms, boat launch (open during winter months only, to provide launching during low water conditions), and public boat docks. Access to the site is from Highway 150. Manson Bay Park is owned by Chelan PUD and is managed by the Manson Park and Recreation District.

Shore Access Site

This is a small site located about 200 feet to the East of Chelan Riverwalk Park, and immediately adjacent to State Highway 97. The site is adjacent to the USDA Forest Service Chelan Ranger Station and is used as a shore access point for swimming and visiting the beach. The site is owned by the City of Chelan.

On May 12, 1981, FERC granted Chelan PUD a new 30-year license for the Project, retroactive to 1974 when the original 50-year license expired. That license expired on March 31, 2004.

Chelan PUD began seeking another new federal license to operate the Project, in 1998. The FERC relicensing process regarding recreation issues required extensive planning, including environmental studies, consultation with relevant agencies, and public involvement. The following are the studies conducted as part of the relicensing process to assess and record recreational use at Project recreation facilities and other related public recreational sites:

- Recreation Use Assessment Study Report (Chelan PUD, 2000a). This report provides the results of data collection efforts and surveys regarding existing recreational use. It was conducted during the summer and fall of 1998 and spring of 1999.
- Recreation Needs Forecast and Analysis Report (Chelan PUD, 2000b). This report provides an analysis of the current and future recreation use, demand, and needs at public recreation sites and waters within the Project Area. The study was conducted in late 1999 and early 2000.

The following studies were also used in developing this Recreation Resources Management and Implementation Plan:

- Socioeconomic Study Element (Chelan PUD, 2000c)
- Aesthetics Resources Assessment Study Report (Chelan PUD, 2000d)

This plan is based on these reports, as well as the extensive consultation effort described in the following subsection. It is also consistent with the relevant recreation management planning documents prepared by federal, state, and other local recreation management agencies.

1.3 Overview of the Plan Content

This Recreation Resources Management and Implementation Plan is based on a three-year planning process undertaken by the Social Sciences Working Group (SSWG) during the relicensing process. The SSWG consist of the USDA Forest Service, NPS, WDOE, NMFS, USFWS, WDFW, IAC, American Whitewater, Washington State Department of Parks and Recreation Commission, City of Chelan, Lake Chelan Recreation Association, Lake Chelan Boat Company, US Corp of Engineers, Manson Parks and Recreation District, the People for Lake Chelan, Chelan PUD and other interested stakeholders. Following the receipt of the New License on November 6, 2006, the newly-created Lake Chelan Recreation Forum (LCRF) engaged in a nine-month long planning process, building upon the work of the SSWG. The resulting plan includes measures developed by the SSWG based on studies conducted during relicensing as well as additional implementation details, planning documents, maps, timelines and budget projections developed by the LCRF.

This revised Recreation Resources Management and Implementation Plan was developed by members of the LCRF and others, including the USDA Forest Service, Interagency Committee for Outdoor Recreation, Lake Chelan Chamber of Commerce, Washington State Parks, City of Chelan, Manson Park and Recreation, Lake Chelan Tourism and Promotion Group, Lake Chelan Recreation Association, American Whitewater, and community members including

representatives from Bear Mountain Ranch and Fluid Adventures and the landowners adjacent to the Chelan PUD owned parcels identified in License Article 407, section (b).

This plan is based on historical recreation data, including existing facilities, development and use patterns, demand, needs and capacity in the Lake Chelan Project area, outlined in Sections 2 and 3 of this plan.

Section 4 of the plan outlines the details of Article 407 of the New License. It discusses in detail the scope of each project, including planning documents, maps, implementation schedules and budget requirements.

1.4 Forum Roles and Responsibilities

Chelan PUD has the responsibility to implement this Recreation Resources Management and Implementation Plan. However members of the LCRF will play an important and continuing part in facilitating its implementation including consultation, throughout the term of the New License.

The LCRF was established under Section 18 of the Settlement Agreement. Each of the parties listed below will participate in the planning, implementation and consultation of those measures outlined in this plan:

- USDA Forest Service
- Interagency Committee for Outdoor Recreation
- Lake Chelan Chamber of Commerce
- Washington State Parks
- City of Chelan
- Manson Park and Recreation
- Lake Chelan Tourism and Promotion Group
- Lake Chelan Recreation Association
- American Whitewater Affiliation
- The community

The LCRF is responsible for meeting to share information, coordinate efforts, and make recommendations regarding the implementation of Article 407 of the License Order relating to the recreational resources.

Article 407, section (b) of this Plan was developed in consultation with the LCRF and the landowners adjacent to the Chelan PUD owned parcels identified in this section.

The Plan includes an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities' comments are accommodated by the plan.

1.5 Meetings

The LCRF met four times throughout the development of this plan. In addition, several community, agency and organization meetings were held to develop individual recreation measures outlined in Section 4 of this plan. Those individual measures were then presented to the LCRF for input and approval.

Chelan PUD allowed a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with FERC. If Chelan PUD did not adopt a recommendation, the filing includes Chelan PUD's explanations of why not, based on project specific reasons.

A Stakeholder Consultation Log is available in Appendix G.

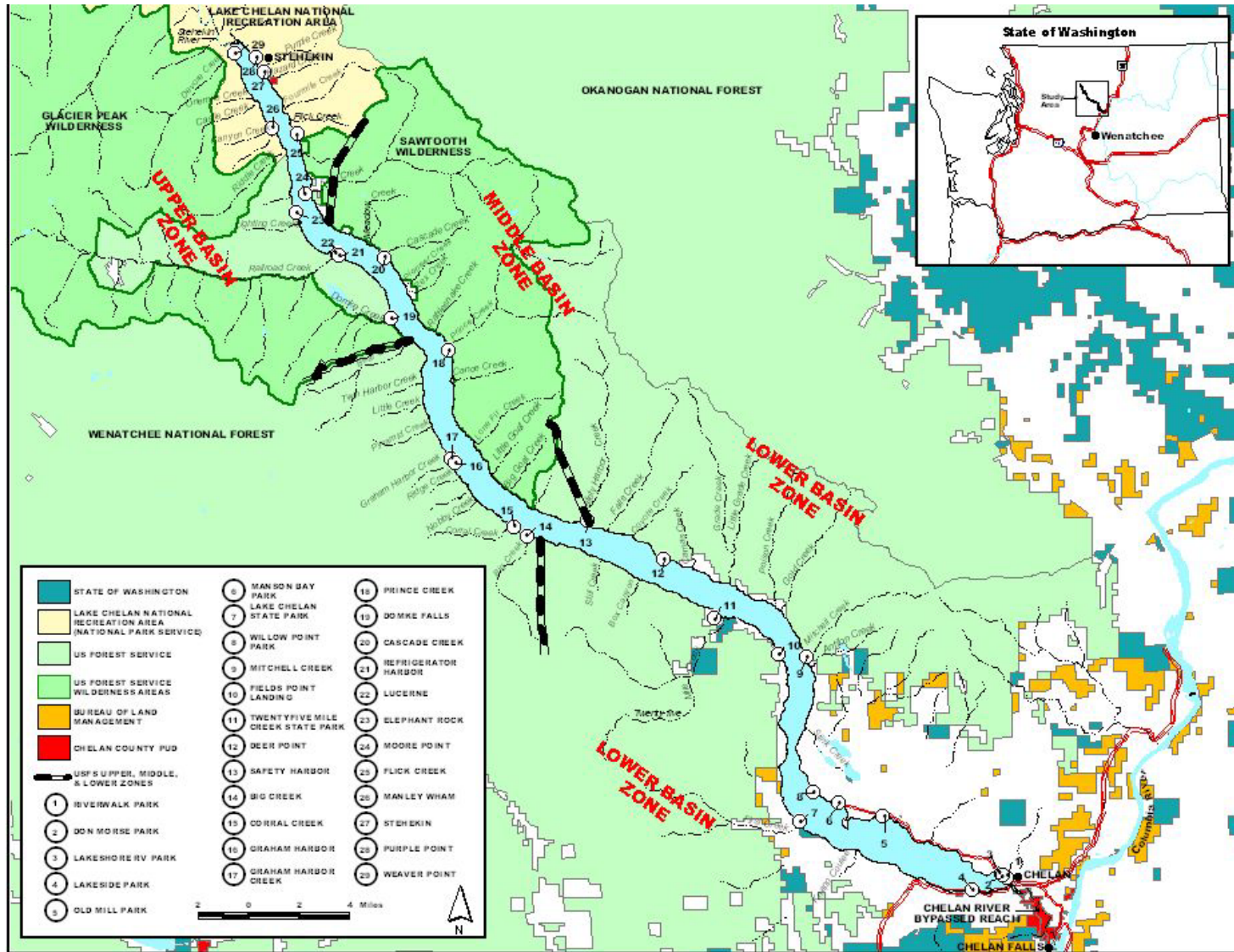


Figure 1: Lake Chelan Recreation Sites

SECTION 2: EXISTING CONDITIONS

This section will be updated beginning in the 20th year of the effective date of the New License and ending in the 23rd year in accordance with the Order on Rehearing dated April 19, 2007.

2.1 Existing Recreation Development and Use

2.1.1 Existing Recreation Facilities

Existing Public Recreation Facilities

For each of the existing public recreation facilities shown on Figure 1, the facilities provided and site acreage is shown in Table 1 (for the Lower Chelan Basin Zone), Table 2, (for the Middle Chelan Basin Zone) and Table 3 (for the Upper Chelan Basin Zone).

The lower lake sites are more urban in development with irrigated lawns, hardened surfaces, paved trails, and flush toilets and can take a higher level of use. The middle and upper lake sites are more semi-private in development with native soils (no paving), native vegetation patterns, pump wells at some locations and vault toilets. The middle and upper lake sites are more limited in being able to exceed capacities without damaging natural resources. People are seeking this semi-primitive experience with a “natural appearing” landscape character, the more remote setting allowing more isolation and privacy and a higher level of rustic facilities.

In summary, existing facilities in the Lower Chelan Basin Zone include approximately 390 campsites, 11 boat launch lanes, 226 vehicle/trailer parking spaces, 134 picnic tables, 109 toilets, 3.9 acres of public beaches, and 2.1 miles of trails/walkways. Existing facilities in the Middle Chelan Basin Zone include about 41 campsites, 10 docks with capacity for about 67 boats (based on an average 21-foot boat length), 43 picnic tables, and 17 toilets. Existing facilities in the Upper Chelan Basin Zone include about 41 campsites, 8 public docks with capacity for about 43 boats (based on an average 21-foot boat length), 13 picnic tables, and 27 toilets.

Existing Private Recreation Facilities

There are a number of private resorts at the lower end of the Lake that provide access to Lake Chelan, including Campbell's Resort, Caravel Resort, Darnell's Lake Resort, Kelly's Resort, Lake Chelan Shores Resort Condominiums, Peterson's Waterfront Resort Condominiums, Wapato Point Resort, Watson's Harverenes Resort Condominiums, and Spader Bay Resort Condominiums. All of these resorts provide swimming beaches, and several, including Darnell's, Lake Chelan Shores, Wapato Point, and Watson's, have boat launches. The names and locations of significant private marinas, as well as the approximate number of boats each such marina can accommodate, is listed below. The Recreation Use Assessment and Needs Analysis studies did not attempt to analyze all the private facilities along Lake Chelan.

<u>Name</u>	<u>Location</u>	<u>Approximate # of Boats</u>
Campbell's Resort	Chelan	16
Crystal View Estates	Chelan	20
Darnell's Resort	Chelan	25
Harris Chelan Marina	Chelan	37
Lake Chelan M&M Marina	Chelan	40

<u>Name</u>	<u>Location</u>	<u>Approximate # of Boats</u>
Lake Chelan Shores	Chelan	15
Lake Chelan Yacht Club (accessible year-round)	Chelan	40
Peterson's Resort	Chelan	12
Lake Chelan Boat Club	Manson	10
Wapato Point Resort	Manson	60
Cove Marina (accessible year-round)	Southside	60
Kelly's Resort	Southside	8
Watson's Harverenes Resort	Southside	25

2.1.2 Current Project Operation, Water Levels, and Recreation Facility Accessibility

Access to many recreational opportunities on Lake Chelan is dependent on lake elevation. See Chapter 8 of the Comprehensive Plan for a full discussion of lake level management.

Public and private boat ramps on Lake Chelan generally become usable as the lake level rises to between elevations 1,090 and 1,095 feet. There are approximately 848 docks at Lake Chelan, most of which are fixed, and most of which are designed to function at the 1,098 feet level.

Public and private marinas on Lake Chelan also generally become accessible as the lake level rises to between elevations 1,090 and 1,095 feet. Some slips may be usable at lower water levels, such as 1,088 or 1,090, but in most cases the slips are fully accessible at 1,095 feet and above.

Old Mill Park boat launch, developed by Chelan PUD, is useable above lake elevation 1,082 feet. The Chelan Riverwalk and Manson Bay boat ramps are useable above lake elevation 1,079 feet, providing year-round access to Lake Chelan.

There are 22 USDA Forest Service docks located in the Upper and Middle Chelan Basin zones. are accessible year-round, including docks located at Fields Point Landing, Deer Point, Safety Harbor, Prince Creek, Corral Creek, Graham Harbor, Domke Falls, Refrigerator Harbor, Lucerne Community Dock, and Lucerne Administrative Dock. Mitchell Creek is partially accessible at 1,090 feet. At all 22 sites, the total boat capacity of the docks are available when the lake levels reach 1,096 feet.

Of the five NPS docks, only the Stehekin Marina is usable year-round. The boat landing at the Stehekin Marina is used as a portal for the Chelan Boat Company's commercial passenger ferry service, and is generally useable when the lake level is above 1,090 feet. The commercial ferry utilizes a landing area that is located a short distance from the Marina when the lake level is below 1,090 feet. Of the other NPS docks, Purple Point is accessible above 1,094 feet while Flick Creek, Manley Wham, and Weaver Point are accessible above a lake elevation of 1,096 feet.

2.1.3 Existing Recreational Use

Monitoring conducted in the Project Area in 1998 and 1999 gathered information regarding the recreation use at 29 public recreation sites, watercraft use on Lake Chelan, and dispersed use along undeveloped public shorelines.

Field data was collected in the peak-season, from May 23 to September 7, 1998. Off-season data collection was conducted in the fall, from September 8 to Oct 3, 1998 and in the spring, from April 11 to May 23, 1999. To supplement monitoring data collection, five-year (historical) recreation visitor use statistics were collected from the National Park Service, USDA Forest Service, Washington State Parks, City of Chelan, and other recreation facility managers in the Project Area where available. Based on use data collected, most of the recreation use in the Lake Chelan area occurs during the months of July and August.

The Recreation Use Assessment Study Report contains information regarding number of visits, recreation activity type, high use locations, resource capacity, and temporal trends. The study also provided information about the level of satisfaction with the sites visited and recreation activities, as well as where people are visiting from and how often they visit, etc. The following summarizes visitor use at recreation sites and by activity, and temporal and demographic trends based on the 1998/1999 monitoring. Further information regarding resource capacity and visitors' attitudes and opinion based on surveys is summarized in section 3, below.

Estimated Number of Visits to Public Recreation Sites

The average number of visitors per day at monitored recreation sites was estimated based on observations and, where available, fee receipt and traffic counter data. Table 4, Table 5, and Table 6 summarize visitor use at recreation sites in the Lower Lake Zone, Middle Lake Zone and Upper Lake Zone, respectively, based on 1998/1999 monitoring results. Visitor use estimates for the peak-season (May 23 to September 7), as well as the fall (September 8 to October 3) and spring (April 11 to May 22).

Substantially more people visit down-lake public recreation sites than up-lake public recreation sites. Based on 1998 peak-season monitoring, the Lower Zone public camping and day-use recreation sites received an average of over 5,200 visitors per day, as compared to an average of approximately 280 visitors per day at up-lake (Middle and Upper zones) USDA Forest Service and NPS campground and picnic sites. Based on 1998 fall-season monitoring, down-lake sites received an estimated average of 1,400 people per day, while up-lake sites received an estimated average of 50 visitors per day. Based on 1999 spring-season monitoring, down-lake sites received an estimated average of 475 visitors per day, whereas up-lake sites received an estimated average of less than 20 visitors per day.

The down-lake sites that received the greatest number of visitors were Lake Chelan State Park, Lakeshore RV Park, Old Mill Park, Don Morse Memorial Park, and Chelan Riverwalk Park. Up-lake sites that received the greatest daily use were NPS Stehekin day-use area, Mitchell Creek, Deer Point, Safety Harbor, Graham Harbor, Weaver Point, Purple Point, and Lucerne. The use at most of the down-lake sites, and at more than half of the up-lake sites, currently exceeds their site capacities on occasion, primarily during late summer peak-season weekends and holidays. Monthly visitor use statistics are summarized in Table 4 of the 1998/1999 Recreation Use Assessment, February 2000.

Monitoring was not conducted at the City of Chelan-owned Lakeshore Marina, located next to Don Morse Memorial Park. However, conversations with Greg Moser, Park and Recreation Director for the City of Chelan, in October, 2000, indicated that, based on fee receipts, approximately 2,000 boats were launched in 1999 at the boat launch. Based on monitored use at Chelan Riverwalk Park Boat Launch, it can be assumed that about 80 percent of the boat launch use at Lakeshore Marina occurs during the peak-season, with approximately 67 percent of peak-season use occurring on weekends. Using the same ratios as Chelan Riverwalk Park Boat Launch and an average of three people per boat, it can be estimated that 65 people per peak-season weekend day use the Lakeshore Marina Boat Launch.

Recreation Activities at Public Recreation Sites

The average number of visitors participating in various activities at recreation sites was also estimated based on 1998/1999 monitoring. Table 7, Table 8, and Table 9, summarize estimated daily visitor use, by activity, at recreation sites in the Lower Lake Zone, Middle Lake Zone, and Upper Lake Zone, respectively.

Based on fee receipt data and field observations, swimming/visiting the beach was the most popular peak-season activity at Lower Chelan Basin Zone recreation sites, followed by camping, motor boating, and picnicking. During the fall season, camping was the most popular activity followed by motor boating and swimming/visiting the beach. During the spring season, most visitors were camping on weekends and motor boating on weekdays, followed by camping.

Based on field observations during the peak-season, the most popular activity of visitors to recreation sites in the Middle Chelan Basin zone during weekends was camping, followed by picnicking. On weekdays, swimming/visiting the beach and motor boating were the most popular activities observed. Based on survey questionnaires, camping was the most popular activity of fall and spring season weekend visitors to recreation sites in the Middle Chelan Basin Zone, followed by motor boating.

Based on field observations during the peak-season, camping was the most popular activity observed at Upper Chelan Basin Zone recreation sites on the weekdays, followed by motor boating, and on weekends motor boating was the most popular activity observed, followed by sightseeing and camping. Based on survey questionnaires, camping was the most popular activity of fall and spring season weekend visitors, followed by hiking in the fall and sightseeing, hiking, backpacking, and nature study/photography in the spring.

Watercraft and Dispersed Shoreline Use

Based on peak-season 1998 observations, motorized boats made up 80 percent of the watercraft use in Lake Chelan (see Table 7 of the Recreation Use Assessment Report). Personal watercraft (jet skis) made up 17 percent, and non-motorboats made up less than 4 percent of the watercraft use. Most of the peak-season motorized watercraft use was concentrated near the City of Chelan, with another hub of activity near Stehekin (see Tables 9, 10 and 11 of Recreation Use Assessment Report). Non-motorized watercraft use in the peak-season was mostly between the City of Chelan and Deep Harbor (see Tables 12, 13, and 14 of the Recreation Use Assessment Report). Few watercrafts were observed on Lake Chelan during the off-season, and 95 percent of watercraft observed was motorized. Most of the off-season watercraft use was between Wapato Point and Camas Creek, with few watercrafts observed up-lake of Deep Harbor.

Activity observed on the undeveloped portions of the lake shoreline, which was not monitored by other methods, was minimal, with a maximum of 26 people observed during a single peak-season weekend day. No shoreline activity was observed in the off-season. Due to the steep shorelines along undeveloped areas of the lake, there are few areas, outside of developed recreation sites, that are accessible. Camping was the main activity that was observed along the shoreline. Other activities observed included swimming/visiting the beach, off-road vehicle riding, hiking, and walking. All of the activity observed along the shoreline in undeveloped areas was up-lake of Fields Point, with most of the activity occurring between Fields Point and Camas Creek. See Tables 8, 18, and 19 of the Recreation Use Assessment Study Report.

Temporal Trends and Visitor Demographics

Based on the 1998/1999 recreation monitoring, recreation sites had the greatest number of visitors during the month of July. The summer months received almost four times more visitors per day at recreation sites in the study area than the fall months. The fall months received more use than the spring months. Weekends received more visitor use than weekdays.

In the Project Area, most of the peak-season visitors are from the Seattle metropolitan area (41%) and Chelan and Douglas Counties (29%). Fall-season down-lake visitors are also mostly from the Seattle metropolitan area (47%) and other Washington cities or counties (20%). Spring-season down-lake visitors are mostly from the Seattle metropolitan area (39%) and from Chelan and Douglas counties (34%). Off-season up-lake visitors are mostly from the Seattle metropolitan area (31%) and from Chelan/Douglas counties (35%).

Table 1: Existing Facilities at Lower Chelan Basin Zone Public Recreation Sites								
Site/Owner	Acres	Camping	Picnic & Day-Use Facilities	Boating Facilities	Swimming	Trails/Walkways	Interpretation Facilities	ADA Compliance
Chelan Riverwalk Park (Chelan PUD) (includes Chelan Chamber Building)	12.5	No	5 picnic tables 5 (in shelter). 90 parking spaces Benches throughout 2 fishing piers 3 restrooms/12 toilets.	Year-round accessible boat launch 2 launch lanes 18 off and on-street parking spaces 1 tie up dock @ launch site 1 tie up dock below picnic shelter area 1 tie up dock near Hwy bridge/Campbell's Resort	4462 feet of shoreline. No designated swim beach	1.08 Mi. paved walkway	Yes	Yes
Shore Access Site (city of Chelan)	.25	No	No picnic sites. Approx. 10 parking spaces on Highway. 1 flush toilet	No	Approx. .12 acres swimming beach.	No	No	Yes
Lakeside Park (city of Chelan)	10	No	12 picnic tables. shelter. 115 parking spaces. Children play area/equip. 1 volleyball ct. ½ basketball ct. 1 restroom/6 toilets	1 launch lane (off-season use only)	.4 acres sand beach and swimming area.	.25 mi. paved walkway	No	Yes
Don Morse Memorial Park and Lakeshore Marina (city of Chelan)	20	No	Park: 20 picnic tables 3 picnic shelters 130 on-site parking spaces and 30+ off-site parking spaces. Band stands 2 tennis courts. 2 volleyball cts. 2 basketball cts. Play area/equip. Bumper boat facility Putting course Race Track Restroom/7 toilets	No	2.5 acres swimming beach. 2 swim docks	.50 mi. paved walkway	No	Park: Partial (beach ramps) and parking. Restrooms

Table 1: Existing Facilities at Lower Chelan Basin Zone Public Recreation Sites								
Site/Owner	Acres	Camping	Picnic & Day-Use Facilities	Boating Facilities	Swimming	Trails/Walkways	Interpretation Facilities	ADA Compliance
			Shower bldg/8 stalls Marina: 1 restroom 4 toilets	Marina: Docks for 40 boats 2 launch lanes				Marina: No
Lakeshore RV Park (city of Chelan)	20	160 RV and tent sites 3 restroom buildings w/12 toilets, 12 showers	No (however, adjacent to Don Morse Memorial Park with access to facilities)	No	No	No	No	Yes
Old Mill Park (Chelan PUD)	20	No	5 picnic tables 11 parking spaces 1 fishing pier Fish cleaning station 1 restroom/8 toilets	Year-round accessible boat launch 4 launch lanes 146 parking spaces 3 docks	No	No	No	Yes
Manson Bay Park (Chelan PUD)	6	No	Picnic/day area-no tables appr. 25 street pkg sp. 1 restroom/8 toilets	1 launch lane (winter only) 3 tie-up docks 20 boat capacity	.15 acre swimming beach Swim dock	No	No	Yes
Willow Point Park (Manson Park and Recreation District)	1.85	No	6 picnic tables Approx. 20 street parking spaces. Mostly walk-ins from neighborhood. Children's play eqp. Summer Outhouses	No	.4 acres	No	No	No
Fields Point (USDA Forest Service)	17	No	13 picnic sites 420 parking spaces 2 composting restrooms 9 toilets & 2 urinals. Information Center	Dock for up-lake ferry service. Capacity for 3 boats (21' boat length)	No designated	.25 Mil walkway	Yes	Yes

Table 1: Existing Facilities at Lower Chelan Basin Zone Public Recreation Sites								
Site/Owner	Acres	Camping	Picnic & Day-Use Facilities	Boating Facilities	Swimming	Trails/Walkways	Interpretation Facilities	ADA Compliance
Lake Chelan State Park (Washington State)	127	144 campsites 17 w/ utilities 4 restrooms w/ 26 toilets, 5 urinals and showers	52 picnic sites 1 shelter 52 parking spaces Water-ski floats Children's playground Horseshoe/Softball 1 restroom w/ 8 toilets, 2 urinals & showers	1 launch lane 2 docks (800 ft.) 28 parking spaces. 5 docks @ waterfront campsites.	.30 acre swim beach	No	No	Yes
25-Mile Creek State Park (Washington State Parks)	235	86 campsites 23 w/ utilities group site 2 restrooms w/ 9 toilets, 2 urinals & shower	6 picnic sites 5 day-use parking spaces	2 launch lanes Boat Marina w/docks and piers 37 boat capacity 34 parking spaces	No designated beach. 1,500 feet of shoreline	No	No	Yes

Table 2: Existing Facilities at Middle Chelan Basin Zone Public Recreation Sites

Site	Acres	Camping	Picnic Tables and Other Facilities	Boating Facilities	Swimming	Trails/Walk-ways	Interpretation Facilities	ADA Compliance
Mitchell Creek (USDA Forest Service)	6	7 tent sites	7 picnic tables 1 shelter, 7 fire rings 2 pit toilets	Floating dock capacity about 17 boats (21' boat length)	No	No	No	No
Deer Point (USDA Forest Service)	2	5 tent sites	5 picnic tables 5 fire rings 2 pit toilets	Floating dock capacity about 8 boats (21' boat length)	Yes	No	No	No
Big Creek (USDA Forest Service)	1	4 tent sites	4 picnic tables 4 fire rings 1 shelter 2 pit toilets	Fixed dock capacity about 4 boats (21' boat length)	Yes	Trail	No	No
Safety Harbor (USDA Forest Service)	1	2 tent sites	2 picnic tables 2 fire rings 1 pit toilet	Floating dock capacity about 6 boats (21' boat length)	No	No	No	No
Corral Creek (USDA Forest Service)	1	2 tent sites	3 picnic tables 2 fire rings 1 pit toilet	Floating dock capacity about 6 boats (21' boat length)	No	No	No	No
Graham Harbor (USDA Forest Service)	2	5 tent sites	7 picnic tables 6 fire rings 2 pit toilets	Floating dock capacity about 10 boats (21' boat length)	No	Trail	No	No
Graham Harbor Cr. (USDA Forest Service)	2	5 tent sites	5 picnic tables 5 fire rings 2 pit toilets	Fixed dock capacity about 6 boats (21' boat length)	No	Trail	No	No
Prince Creek (USDA Forest Service)	3	6 tent sites	5 picnic tables 5 fire rings 3 pit toilets	Floating dock capacity about 3 boats (21' boat length)	No	Trail	No	No
Domke Falls (USDA Forest Service)	1	4 tent sites	4 picnic tables 3 fire rings 1 pit toilet	Floating dock capacity about 6 boats (21' boat length)	No	No	No	No
Cascade Cr. (USDA Forest Service)	.25	1 tent site	1 picnic table 1 pit toilet	Fixed dock capacity about 1 boat (21' boat length)	No	Trail	No	No

Table 3: Existing Facilities at Upper Chelan Basin Zone Public Recreation Sites

Site	Acres	Camping	Picnic Tables and Other Facilities	Boating Facilities	Swimming	Trails/Walk-ways	Interpretation Facilities	ADA Compliance
Refrigerator Harbor (USDA Forest Service)	2	4 tent sites	4 picnic tables 4 fire rings 2 pit toilets	Floating dock capacity about 8 boats (21 foot boat length)	No	Trail	No	No
Lucerne Landing/ Holden Village Access	2	None	Bus access to Holden Village from Lucerne Landing 2 pit toilets	Community Floating Dock for Lady of Lake ferry	No	Partial accessible trail loop	Yes	No
Lucerne Campground (USDA Forest Service)	3	2 tent sites	2 picnic tables 2 pit toilets	Floating dock capacity about 11 boats (21 foot boat length)	No	Trail	No	No
Moore Point (USDA Forest Service)	1	4 tent sites	4 picnic tables 4 fire rings 1 shelter 2 pit toilets	Fixed dock capacity about 3 boats (21 foot boat length)	No	Trail	No	No
Flick Creek (NPS)	.5	1 tent site	1 shelter 1 pit toilet	Floating dock capacity about 1 boat (21 foot boat length)	No	Trail	No	No
Manley Wham (NPS)	.25	1 tent site	1 pit toilet	Fixed dock capacity about 1 boat (21 foot boat length)	No	No	No	No
Stehekin (NPS)	5	None	3 picnic sites 1 restroom w/8 toilets	Accessible year-round Floating dock capacity about 26 boats (21 foot boat length)	No	Trail	Yes	No
Purple Point (NPS)	2	7 tent sites	1 pit toilet	Floating dock capacity about 7 boats (21 foot boat length)	No	Trail	No	No
Weaver Point (NPS)	15	22 tent sites	1 restroom w/ 2 flushing toilets. 8 pit toilets.	Floating dock capacity about 12 boats (21 foot boat length)	No	Trail	No	No

Table 4: Estimated Average Daily Use at Lower Chelan Basin Zone Sites*

SITE	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall (Sept 8 – Oct 3) Average # People/Day			Spring (Apr 11 – May 22) Average # People/Day		
	All Days**	Week-day	Week-end	All Days**	Week-day	Week-end	All Days**	Week-day	Week-end
Chelan Riverwalk Park Boat Launch	195	130	265	83	60	115	66	40	100
Chelan Riverwalk Park Walkway	93	94	94	43	34	55	18	23	11
Chelan Riverwalk Park Other Areas	203	102	320	13	6	23	2	2	3
Shore Access Site	19	18	21	3	5	0	0	0	0
Lakeside Park	392	355	425	30	11	55	3	3	3
Don Morse Memorial Park	651	590	680	97	97	96	17	18	16
Lakeshore RV Park	586	580	585	352	310	410	49	25	80
Old Mill Park	553	340	800	104	55	170	128	88	180
Manson Bay Park	176	170	185	6	0	13	2	3	1
Willow Point Park	60	64	52	33	53	6	0	0	0
Fields Point	337	345	315	97	80	120	50	50	50
Lake Chelan State Park Overnight	529	495	575	158	108	227	63	35	100
Lake Chelan State Park Day Use	1026	960	1100	361	255	505	51	18	94
25-Mile Cr. State Park Overnight	171	145	206	11	9	13	1	.4	2
25-Mile Cr. State Park Day Use	225	170	280	43	32	58	26	21	33
TOTAL	5216	4558	5903	1434	1115	1866	476	326.4	673

SITE	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall (Sept 8 – Oct 3)*** Average # People/Day	Spring (Apr 11 – May 22)*** Average # People/Day
	All Days**	Weekday	Weekend	Weekend	Weekend
	Mitchell Creek	26	20	34	3
Deer Point	15	17	13	1	0
Big Creek	8	10	6	2	0
Safety Harbor	15	10	21	3	13
Corral Creek	3	.5	7	1	0
Graham Harbor	12	7	18	10	0
Graham Harbor Cr.	7	5	9	2	0
Prince Creek	8	6	11	3	0
Domke Falls	3	0	7	4	0
Cascade Cr.	0	0	1	0	3
TOTAL:	97	75.5	127	29	16

* Refer to Recreation Use Assessment Report (Chelan PUD, 2000)
 ** Peak-Season “All Days” calculated using weekday, weekend, and holiday data.
 *** No weekday data available for fall and spring seasons.

Table 6: Estimated Average Daily Use at Upper Chelan Basin Zone Sites*

SITE	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall(Sept 8 – Oct 3)*** Average # People/Day	Spring (Apr 11 – May 22)*** Average # People/Day
	All Days**	Weekday	Weekend	Weekend	Weekend
Refrigerator Harbor	9	7	12	0.5	2
Lucerne	11	9	12	7	0
Moore Point	10	9	12	2	0
Flick Creek	4	4	4	8	0
Manley Wham	3	3	3	0.5	0
Stehekin NPS Picnic Area	116	60	190	ND	0
Purple Point	15	9	22	3	0
Weaver Point	17	9	28	2	0
TOTAL:	185	110	283	23	2

* Refer to Recreation Use Assessment Report (Chelan PUD, 2000)
 ** “All Days” calculated using weekday, weekend, and holiday data.
 *** No weekday data available for fall and spring seasons. No Fall weekend data available for Stehekin day-use site.

**Table 7: Lower Chelan Basin Zone Sites - Estimated Average Daily Use By Activity
(based on 1998/99 camping fee receipts and day-use observations)**

Activity	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall (Sept 8 – Oct 3) Average # People/Day			Spring (Apr 11 – May 22) Average # People/Day		
	All Days**	Weekday	Weekend	All Days**	Week-day	Week-end	All Days**	Week-day	Week-end
	Camping	1286	1220	1366	521	427	650	113	60
Swimming/visiting beach	2278	2239	2205	219	153	318	5	6	4
Shore fishing	34	14	64	8	17	0	0	0	0
Motor boat	547	453	668	331	297	378	107	97	120
Jet skiing	75	50	107	25	0	60	0	0	0
Non-Motor Boat	8	1	16	0	0	0	3	5	0
Picnicking	397	170	603	39	26	59	9	40	4
Sightseeing	48	44	112	78	26	109	31	35	38
Walking	132	156	150	63	47	84	31	52	31
Jogging	3	5	0	8	0	17	2	0	8
Hiking	0	0	0	0	0	0	0	0	0
Backpacking	0	0	0	0	0	0	0	0	0
Rollerblading/Skating	8	7	11	0	0	0	0	0	0
Using Playgrounds	55	55	44	78	0	109	33	0	57
Bicycling, on-road	37	26	48	0	0	0	0	0	0
Bicycling, off-road	6	6	8	8	4	8	2	12	0
Nature study/Photography	1	0	1	0	0	0	0	0	0
Berry picking	1	0	3	0	0	0	0	0	0
Off-road vehicle riding	0	0	0	0	0	0	0	0	0
Hang gliding	6	0	14	0	0	0	0	0	0
Group Activity (volleyball, etc.)	133	45	213	8	81	8	35	0	61
Some other activity	162	68	270	47	38	67	104	20	168
Total:	5217	4559	5903	1433	1116	1867	475	327	673

* Based on visitor use estimates at Chelan Riverwalk Park, Shore Access Site, Lakeside Park, Don Morse Memorial Park, Lakeshore RV Park Old Mill Park Manson Bay Park, Willow Point Park and Fields Point.

** "All Days" calculated using weekday, weekend, and holiday data.

Table 8: Middle Chelan Basin Zone Estimated Average Daily Use By Activity*
(based on 1998 peak-season observations, and 1998 fall and 1999 spring-season box surveys)

Activity	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall(Sept 8 – Oct 3)*** Average # People/Day	Spring(Apr 11 – May 22)*** Average # People/Day
	All Days**	Weekday	Weekend	Weekend	Weekend
Camping	51	10	68	14	8.0
Swimming/visiting beach	8	17	2	3	0.4
Fishing	3	1	5	1	0.8
Motor boat	19	17	21	3	1.3
Jetskiing	0	0	0	0	0
Non-Motor Boat	0	0	3	0	0
Picnicking	6	3	24	2	0
Sightseeing	0	0	0	2	1.3
Walking	5	6	5	1	0.4
Jogging	0	0	0	0	0
Hiking	0	3	0	2	1.3
Backpacking	0	0	0	0	1.3
Rollerblading/Skating	0	0	0	0	0
Using Playgrounds	0	0	0	0	0
Bicycling, on-road	0	0	0	0	0
Bicycling, off-road	0	0	0	0	0
Nature study/Photography	2	7	0	1	1.3
Berry picking	0	0	0	0	0
Off-road vehicle riding	0	0	0	0	0
Hang gliding	0	0	0	0	0
Group Activity (volleyball, etc.)	2	8	0	0	0
Some other activity	2	5	0	0	0
Total:	98	77	128	29	16.1

* Based on visitor use estimates at Mitchell Creek, Deer Point, Big Creek, Safety Harbor, Corral Creek, Graham harbor, Graham Harbor Creek, Prince Creek, Domke Falls and Cascade Creek.

** "All Days" calculated using weekday, weekend, and holiday data.

*** No weekday data available for fall and spring seasons.

Table 9: Upper Chelan Basin Zone Estimated Average Daily Use by Activity*
(based on 1998 peak-season observations, and 1998 fall and 1999 spring-season box surveys)

Activity	Peak-Season (May 23 – Sept 7) Average # People/Day			Fall(Sept 8 – Oct 3)*** Average # People/Day	Spring(Apr 11 – May 22)*** Average # People/Day
	All Days**	Weekday	Weekend	Weekend	Weekend
Camping	39	42	36	8.0	1
Swimming/visiting beach	11	20	0	1.5	0.1
Shore fishing	3	0	7	1.3	0
Motor boat	54	22	94	2.0	0
Jetskiing	0	0	0	0	0
Non-Motor Boat	0	0	0	0.3	0
Picnicking	6	0	13	0.8	0
Sightseeing	32	0	74	2.2	0.2
Walking	14	18	8	1.0	0
Jogging	0	0	0	0	0
Hiking	0	0	0	2.6	0.2
Backpacking	7	0	17	0.8	0.2
Rollerblading/Skating	0	0	0	0	0
Using Playgrounds	0	0	0	0	0
Bicycling, on-road	4	0	10	0.4	0
Bicycling, off-road	0	0	0	0.2	0.1
Nature study/Photography	1	0	2	1.6	0.2
Berry picking	0	0	0	0.3	0
Off-road vehicle riding	1	0	2	0.2	0
Hang gliding	0	0	0	0	0
Group Activity (volleyball, etc.)	0	0	0	0	0
Some other activity	13	7	20	0	0
Total:	185	109	283	23.2	2

* Based on visitor use estimates at Refrigerator Harbor, Lucerne Campground, Moore Point, Flick Creek, Manley Wham, Stehekin USDA Forest Service Picnic Area, Purple Point, and Weaver Point.

** "All Days" calculated using weekday, weekend, and holiday data.

*** No weekday data available for fall and spring seasons.

SECTION 3: RECREATION DEMAND, FACILITY NEEDS AND RESOURCE CAPACITY

This section will be updated beginning in the 20th year of the effective date of the New License and ending in the 23rd year in accordance with the Order on Rehearing dated April 19, 2007.

State and national studies indicate that as populations grow, demand for recreation opportunities will grow. Tourism/recreation is one of the largest industries in the Lake Chelan area, and can be expected to grow in the future, creating increased demands on recreational facilities in the Project Area. The Recreation Needs Forecast and Analysis Report provided an analysis of the public recreation sites and recreation activity growth and demand in the Project Area. Current facility and reservoir capacity was examined, recreation needs were identified, and the ability of the Project Area to accommodate needs was reviewed.

Recreation demands and trends were analyzed by projecting recreation visitation based on existing conditions and future growth rates, as well as reviewing recreation planning documents and surveys that provided information regarding recreation-activity demands and trends. The Recreation Needs Forecast and Analysis Report (section 5.2, Tables 5-16 through 5-41) provide existing visitor use and projected visitor use data for public monitored recreation sites in the Lower, Middle and Upper Chelan Basin Zones, as well as watercraft and dispersed use (activities along undeveloped shoreline areas within the Project Area).

To assess the need for additional facilities, a comparison of the demand/trends with the resource capacity (or supply) is made. The following summarizes the results by Lake Zone for facility/activity categories, as presented in section 6 of the Recreation Needs Forecast and Analysis Report.

3.1 Lower Chelan Basin Zone Demand and Needs Analysis

Camping, boating, and day use areas, including picnic facilities, swimming/sunbathing beaches, and trails/walkways were analyzed. Additionally, the need for play equipment, whitewater kayaking, and community events was reviewed, as well as facilities to accommodate dispersed use. The greatest facility needs identified in the Lower Chelan Basin Zone include public trails and beach access, parking for boat-launch facilities on the south shore, and additional campsites to meet future demands. The following summarizes the analysis for the Lower Chelan Basin Zone (see the Recreation Needs Forecast and Analysis Report for more detailed information).

Visitor use estimates, based on fee receipt data and observations, indicated that swimming/visiting the beach was the most popular peak-season activity at Lower Chelan Zone recreation sites, followed by camping, motor boating, and picnicking.

Visitors appear to be satisfied with facilities and their recreation experience. All recreation sites received average ratings above 8 (on a scale of 1 to 10, with 10 being the best), except for Lakeshore RV Park and Twenty-five Mile Creek State Park, which received average ratings of 7.9 and 6.2, respectively. Recreational activities were also all given average ratings above 8, with the exception of fishing and waterskiing activities, which received average ratings of 6.2 and 7, respectively.

Table 10 summarizes current and projected average peak-season weekend (or average weekday if busier due to a holiday) utilization for camping, boating facilities, and non-boating day use facilities, including day-use areas, parking, picnic tables, swimming beaches, and trails/walkways at Lower Chelan Basin Zone sites.

Camping

Current campground facilities in the Lower Chelan Basin Zone are generally meeting average peak-season demand, with an average utilization of around 70 percent, as shown on Table 10. Lower Zone campgrounds, however, are generally full on peak-season holidays and during late July and August. Lakeshore RV Park and Lake Chelan State Park are full more often than Twenty-five Mile Creek State Park, and more visitors are turned away from Lake Chelan State Park than the other campgrounds. Most visitors turned away from Lake Chelan State Park go to Twenty-five Mile Creek State Park.

Washington State Interagency Committee for Outdoor Recreation (IAC) State Comprehensive Outdoor Recreation Planning (SCORP) projections indicate that camping is expected to exhibit higher than average growth rates in the future. The Recreation Needs Forecast and Analysis Report (section 6.1.1, Table 6-1) indicates that campgrounds in the Lower Chelan Basin Zone are currently meeting demands, except on busy holidays and during weekends and some weekdays in July and August.

Additional campgrounds are needed in the Lower Chelan Basin Zone to meet future (2020) peak-season demands (Table 10). Both Lake Chelan State Park and Lakeshore Park are expected to exceed their capacity on most peak-season days by 2020. Twenty-five Mile Creek State Park Campground received the most comments regarding the need for larger and more campsites. Additional campsites will be needed to accommodate increasing peak-season demands.

Boating

For boating activities, launch lanes and vehicle/trailer parking at launch sites were analyzed. Recommended standards regarding watercraft capacity in the Lower Lake Chelan Zone was also reviewed.

Currently, boat launches in the Lower Chelan Basin Zone are generally accommodating average peak-season demand, with a average utilization of 72 percent for launch lanes and 60 percent for vehicle/trailer parking spaces at boat launches, as shown on Table 10. During most peak-season weekends and during many peak-season weekdays, however, parking capacity at Chelan Riverwalk Park is exceeded. The existing 226 public vehicle/trailer parking spaces in the Lower Chelan Basin Zone is more than the 205 spaces recommended for a lake the size of lower Lake Chelan under one standard, but is less than another standard that would result in 288 spaces (see the Lake Chelan Recreation Use Assessment for a discussion of the various standards for determining the appropriate number of vehicle/trailer parking spaces). The average peak-season weekend watercraft use at the Lower end of Lake Chelan is currently below recommended standards, but during holidays the recommended standards have been exceeded within the Lower Chelan Basin Zone between the City of Chelan and Wapato Point.

Washington State (IAC SCORP) lists boating access as one of the more desired facilities in parks. Washington State projections indicate that motor boating is expected to grow at a slightly lower than average rate, whereas non-motorized boating is expected to grow at a slightly higher than average rate.

Projections indicate that peak-season boat use in 2020 will reach the public boat launch capacity in the Lower Chelan Basin Zone. Although average projected 2020 vehicle/trailer parking utilization is shown on Table 10 as 74 percent, observations and traffic counter data, as well as visitor comments, have indicated that additional vehicle/trailer parking spaces are needed at Chelan Riverwalk Park to meet current and future peak-season, as well as off-season demand. Additional vehicle/trailer parking spaces will also likely be needed to accommodate projected future peak-season weekend use at Lake Chelan State Park and Twenty-five Mile Creek State Park.

Non-Boating Day-Use

Day-use areas were analyzed, including the acreage, parking, picnic areas, swim beaches and trails, as shown on Table 10. Additionally, the demand for playground equipment, whitewater kayaking and community event facilities were reviewed.

When using an assumed design standard of 20 people per acre, with a turnover factor of three for beach activity and two for other day use activities, it appears there is sufficient space to meet current average weekend demand. However, day-use areas can get very busy during late summer months and holidays. When reviewing just the number of parking spaces to accommodate day-use areas and comparing it with estimated visitor use, parking spaces are currently 97 percent utilized. But this is assuming that all visitors park in the day-use parking areas. Existing picnic tables appear to meet current demand.

Designated swimming beaches in the Lower Chelan Basin Zone are currently about 90 percent utilized during peak-season weekends, and can become very crowded during hot summer days. Existing trails/walkways are estimated to be just over 90 percent utilized based on the number of visitors observed participating in trail/walkway activities at parks during 1998.

Washington State (IAC SCORP) lists natural areas, trails, playgrounds, beaches, picnic areas, swimming pools, water viewpoints, boating access, and sport fields and courts as the most desired facilities in parks. State, national, and local surveys have indicated demand for trails more than any other type of facility, especially trails near towns and that provide beach access. Projections indicate that the use of picnic areas, beaches, and trails will grow at a higher than average rate.

Use projections for day-use facilities in the Lower Chelan Basin Zone (Table 10) indicate that day-use parking spaces will be over-utilized by 2020, assuming that all day-use visitors park in day-use spaces. Manson Bay Park and Willow Point Park have limited parking and many walk-in visitors. Parking at other day-use areas is likely sufficient to meet future demands, considering the number of walk-ins from nearby neighborhoods and resorts. The overall current number of picnic tables in the Lower Zone appears to be sufficient to meet future demand. The greatest recreational facility need to meet short term and future (2020) needs at day-use areas in

the Lower Zone include public trails and beach access. Projections indicate that current facilities will be over utilized in the near future (Table 10).

Other Day-Use Activities

Analysis was also conducted to determine the need for additional playground equipment, whitewater kayaking in the gorge, and community events.

The need for additional playground equipment was indicated in 1998/1999 surveys. However recent playground equipment additions and improvements have been made at several parks within the Lower Chelan Basin Zone since the survey. With these additions and improvements, it appears that playground equipment will meet current and future demands.

Interest in whitewater kayaking in the Chelan River was indicated by American Whitewater Affiliation during the relicensing process. Local, state, and national studies and surveys indicate that significantly fewer people participate in whitewater kayaking than other recreation activities. However, it is anticipated that this sport is likely to grow at rates similar to, or slightly above, other recreational activities. If kayaking is allowed in the Chelan River, it would be suitable only for expert kayakers because of the extreme danger involved, and the number of kayakers who would be able to take advantage of this opportunity would therefore be extremely small.

There appears to be a growing demand for arts and other community events in the Lake Chelan area. These events will continue to place increasing demand on several existing parks and facilities in the Lower Chelan Basin Zone, such as Chelan Riverwalk Park, Don Morse Memorial Park, and Manson Bay Park, which currently host such events.

Dispersed Use

Relatively few people were observed along undeveloped shorelines in the Lower Chelan Basin Zone. It should be noted that observations did not focus on shorelines down-lake of Fields Point since the majority of lands are privately owned, and activities on public roadways and easements were not documented. Few people were observed between Fields Point and Camas Creek, and most were observed camping. Current and projected future dispersed-activity is not expected to significantly impact the shorelines or require developed facilities to meet estimated demands.

3.2 Middle Chelan Basin Zone Demand and Needs Analysis

Camping picnicking and boating facilities, as well as beaches and trails were analyzed at the ten public USDA Forest Service recreation sites in the Middle Zone. The greatest facility needs identified in the Middle Chelan Basin Zone include improvements and maintenance of toilets and docks and expansions of some campgrounds.

The following summarizes the analysis for the Middle Chelan Basin Zone (see the Recreation Needs Forecast and Analysis Report for more detailed information).

Visitor use estimates by activity showed that the highest number of visitors in the Middle Chelan Basin Zone during peak-season weekends were camping, followed by picnicking. On peak-season weekdays, visiting the beach and motor boating activities had the highest use, followed by camping. Camping showed the highest use during fall and spring season observations.

Visitors appear to be satisfied with facilities in the Middle Zone and their recreation experience. All recreation sites received average ratings above 8, except for Domke Falls which received average rating of 7.4. Recreation activities were all given average ratings above 8. Day-users surveyed rated recreation sites within the Middle Chelan Basin Zone an average of 8, on a scale of 1 to 10 with 10 being the highest. Responses received from survey respondents regarding what could make the sites better for them included cleaner facilities/toilets, fewer people, more and better dock space, less rocks, more grass, more tables, bathrooms, newer facilities, better cleats on docks and no fees.

Table 11 summarizes current and projected average peak-season weekend utilization for camping, picnicking, and boating facilities.

Campsites

Currently, the USDA Forest Service manages campgrounds using a standard of five people per campsite. However, surveys have indicated that the social capacity of campsites is less. Therefore, a design standard using both three people per campsite and five people per campsite was reviewed in the Recreation Needs Forecast and Analysis. Current campsites at Middle Chelan Basin Zone sites are generally meeting average peak-season weekend demand, with an average utilization of around 55 percent using a design standard of three people per campsite and an average utilization of 33 percent using a design standard of five people per campsite. Observations, however, indicate that campsites in the Middle Zone fill up an average of approximately 15 percent of the days during the peak-season, mostly on holidays and busy weekends.

According to Washington State (IAC SCORP) surveys, camping can be expected to exhibit growth rates slightly higher than average growth rates for recreation activities in the region; although more remote tent camping has not been broken out in these projections. Projections indicate that the current number of campsites in the Middle Chelan Basin Zone will meet the average peak-season demand through 2020; although it can be expected that campsites will continue to fill up more often on holidays and summer weekends during the months of July and August.

Camping/Day Use-Site Utilization

Because day-use activities share campground facilities (i.e. picnic tables and toilets at camp sites), total use at Middle Chelan Basin Zone recreation sites was reviewed to determine if excess capacity currently exists at recreation sites to accommodate increased camping or day use activities at those sites. Table 11 summarizes the current and future recreation site utilization for all activities during peak-season weekends). Both overnight and day use estimates are included in the design load estimates and compared with the existing facility capacity, based on both camping and day-use activities.

Using design standards of both three people per site and five people per site, it appears that existing facilities will be adequate to meet current and future average peak-season weekend demand. However, when looking at individual sites, the 1998 estimated use exceeded or was near estimated site capacities on occasion at Mitchell Creek, Safety Harbor, and Graham Harbor

Creek. It can be expected that some recreation sites in the Middle Chelan Basin Zone will fill up more often in the future, especially on peak-season holidays and weekends during the months of July and August. At any given year, there is a high probability that one or more campgrounds and associated facilities such as docks, toilets, and/or trails may be closed due to fire closures, flood events, repairs or other factors that further reduces potential capacity up-lake.

Surveys have indicated demands for better maintenance of toilets and docks. Surveys have also indicated desires for fewer people at sites, and comments were also received regarding needs for more and/or larger campsites. Visitors appear to seek up-lake sites for the remoteness of the location and even though recreation sites may not be physically full, they are exceeding some visitors' social capacity.

Boating

When comparing supply and demand for boating facilities in the Middle Chelan Basin Zone, the capacity of boat docks as well as the number of boats observed at recreation sites and the estimated number of visitors at recreation sites were reviewed. The number of boats observed at recreation sites in the Middle Lake Chelan Zone was also reviewed.

The average number of boats observed during peak-season weekend and weekday observations in the Middle Chelan Basin Zone was well below the total dock capacity (see the Recreation Needs Forecast and Analysis Report). No Middle Zone USDA Forest Service recreation site docks were full during peak-season observations, and during monitoring of boat arrivals at the docks, no boats were observed turning away due to the docks being too full.

Because most visitors at Middle Chelan Basin Zone sites use docks to access the sites, the total estimated visitor use at sites was also compared with the docking capacity. When comparing the dock capacity with the estimated average peak-season weekend use, the current dock facilities appear to be meeting current demands (Table 11).

Monitoring in 1998 and 1999 indicated that watercraft use in the Middle Chelan Basin Zone during the busiest time of the year (average peak-season weekend) is well below half the recommended standard by the State Organization for Boating Access (SOBA). The boater capacity standards recommended by SOBA are conservative and generally applicable to rural areas. Because the Middle Chelan Basin Zone is surrounded by wilderness and primitive areas, even the more conservative SOBA standards are likely too high for this unique part of the Lake.

Washington State (IAC SCORP) projections indicate that growth in motor boating is expected to grow at a slightly lower rate, whereas non-motorized boating is expected to grow at a slightly higher rate. Comparisons of projected average peak-season weekend use at recreation sites with the current Middle Zone dock capacity (Table 11) also indicate that future demand will be met with existing facilities. When reviewing each site individually, it appears that most sites have adequate dock capacity to meet average peak-future demands, except for Safety Harbor and Prince Creek.

Although the overall current dock capacity in the Middle Chelan Basin Zone appears to meet current and future demands, surveys at Middle Zone recreation sites have indicated needs for better maintenance of existing docks.

As the number of campers and day-use activities increases, boating facilities would also be affected. The main issue to address when looking at boating activities is not tied to watercraft capacity related to size of lake, but rather the facilities in place to support watercraft activities up-lake (i.e. docks, moorage, campsites, toilets, and day use facilities. The number one visitor use of the Middle Chelan Basin Zone is camping. Comments received from visitors camping in the area said better docking would improve their activity. Other comments included cleaner facilities, toilets, fewer people, more campsites, larger campsites, more dock space, better cleats, and no fees. Future watercraft use is expected to remain well below standards in the Middle Chelan Basin Zone.

Trails

Access to over 200 miles of trails is provided at two out of the ten recreation sites in the Middle Chelan Basin Zone, Prince Creek and Cascade Creek. Big Creek, Graham Harbor, and Graham Harbor Creek have trails that go up nearby drainages, and other sites have pathways within the site area, but do not provide trails outside of the site or to the expansive USDA Forest Service lands or Lake Chelan National Recreation Area trail network. Although most people that visit Middle Chelan Basin Zone sites participate in walking and hiking during their visit, these types of activities are not their primary reason for visiting the Middle Chelan Basin Zone. Based on surveys and observations, construction of additional trails within the Middle Chelan Basin Zone is not considered a high priority, although existing trails should be maintained and, in some cases, improved.

Dispersed Use

Relatively few people were observed along undeveloped shorelines in the Middle Chelan Basin Zone. No people were observed during peak-season weekdays and off-season, and only averages of four people per day were observed during peak-season weekends. The few people who were observed were sunbathing/swimming/wading, camping, and off-road vehicle riding. Current and projected future dispersed-activity is not expected to significantly impact the shorelines or require developed facilities to meet estimated demands.

3.3 Upper Chelan Basin Zone Demand and Needs Analysis

Camping, picnicking, and boating facilities, as well as beaches and trails, were analyzed at the three USDA Forest Service and five NPS recreation sites in the Upper Zone, including the NPS Stehekin day-use area. As with the Middle Zone, the greatest facility needs identified in the Upper Chelan Basin Zone include improvements and maintenance of toilets and docks and expansions of some campgrounds and/or better regulation of visitors through the fee program. Based on observations, campgrounds and docks at recreation sites in the Upper Chelan Basin zone, with the exception of Weaver Point Campground, are full more often than campgrounds and docks in the Middle Chelan Basin Zone. Visitors appear to seek up-lake sites for the remoteness of the location that provides quiet and solitude and even though recreation sites may not be physically full, they are exceeding some visitor's social capacity. Expansions or improvements to sites to meet future peak-season demands will need to ensure that the

remoteness and unique recreation experience of the sites are preserved. The following summarizes the analysis for the Upper Chelan Basin Zone (see the Recreation Needs Forecast and Analysis Report for more detailed information).

Visitor use estimates by activity showed that the highest number of visitors in the Upper Chelan Basin Zone during peak-season weekends were motor boating, followed by sightseeing, then camping. On peak-season weekdays, camping had the highest number of visitors, followed by motor boating. Camping showed the highest use during fall and spring season observations.

Visitors appear to be satisfied with facilities in the Upper Zone and their recreation experience. All recreation sites received average ratings of over 8. Recreation activities were all given average ratings above 8.

Table 12 summarizes current and projected average peak-season weekend utilization for camping, picnicking and boating facilities.

Campsites

Currently, the USDA Forest Service and NPS manage campgrounds using a standard of five people per campsite. However, surveys have indicated that the social capacity of campsites is less. Therefore, design standards using both three people per campsite and five people per campsite were reviewed in the Needs Analysis. Current (1998) campsites at Upper Chelan Basin Zone sites are generally meeting average peak-season demand for the busiest days (average peak-season weekend or average weekday, whichever has the most use by activity). Average peak campsite utilization is around 34 percent using a design standard of three people per campsite and average utilization is 20 percent using a design standard of five people per campsite. However, based on observations in 1998, it is estimated that overall campsites in the Upper Chelan Basin Zone are full an average of approximately 24 percent of the time during the peak-season. When breaking out USDA Forest Service and NPS sites, average campsite utilization at USDA Forest Service sites is greater than average campsite utilization at NPS sites. For instance, the peak utilization rate of USDA Forest Service campsites is about 73 percent, compared to 22 percent at NPS campsites. (See Appendix A to the Recreation Needs Forecast and Analysis Report for more detail).

According to Washington State (IAC SCORP) surveys, camping can be expected to exhibit growth rates slightly higher than average growth rates for recreation activities in the region; although more remote tent camping has not been broken out in projections. Projections indicate that the current number of campsites in the Upper Chelan Basin Zone will meet the average peak-season demand in through 2020; with average peak utilization of 48 percent at three people per campsite and 29 percent at five people per campsite. However, when breaking out USDA Forest Service sites, estimated future (2020) peak utilization is over 100 percent at three people per campsite and at 62 percent at five people per campsite. NPS estimated future (2020) peak utilization is 30 percent at three people per campsite and 18 percent at five people per campsite.

Camping/Day Use-Site Utilization

Because day-use activities share campground facilities (i.e. picnic tables at camp sites), total use at Upper Chelan Basin Zone recreation sites was reviewed to determine if excess capacity

currently exists at recreation sites to accommodate increased camping or day use activities at recreation sites. Table 12 summarizes the current and future recreation site utilization for all activities during the busiest time of the year (average peak-season weekends). Both overnight and day use estimates are included in the design load estimates and compared with the existing facility capacity, based on both camping and day-use activities.

Using design standards of both three people per site and five people per site, it appears that the existing facilities will be adequate to meet current and future average peak-season weekend demand (Table 12). When breaking out USDA Forest Service and NPS sites, average utilization at USDA Forest Service sites is greater than the average utilization at NPS sites. Current (1998) average peak utilization at USDA Forest Service sites, using a design standard of three people per site is around 80 percent, while utilization at NPS site is 41 percent. Future (2020) average peak utilization at USDA Forest Service sites, using a design standard of three people per site, is over 100 percent, while NPS utilization is 57 percent (see Needs Analysis, Appendix A).

Using a design standard of five people per site, future (2020) average peak utilization at USDA Forest Service sites is 67 percent and 34 percent at NPS sites. When looking at individual sites, 1998 estimated use exceeded or was near estimate site capacities on occasion at Refrigerator Harbor, Lucerne USDA Forest Service campground, Moore Point, Flick Creek, Manley Wham, and Purple Point. It can be expected that most recreation sites in the Upper Chelan Basin Zone will fill up more often in the future, especially on peak-season holidays and weekends. At any given year, there is a high probability that one or more campgrounds and associated facilities such as docks, toilets, and/or trails may be closed due to fire closures, flood events, repairs or other factors that further reduces potential capacity up-lake.

Surveys have also indicated desires for fewer people at sites and comments were also received regarding needs for more remote/private campsites. Visitors appear to seek up-lake sites for the remoteness of the location and even though recreation sites may not be physically full, they are exceeding some visitors' social capacity. Expansions or improvements to sites by the USDA Forest Service and NPS to meet future peak-season demands should ensure that the remoteness and unique recreation experience of the sites are preserved.

Boating

When comparing supply and demand for boating facilities in the Upper Chelan Basin Zone, the capacity of boat docks as well as the number of boats observed at recreation sites and the estimated number of visitors at recreation sites were reviewed. Watercraft capacity in the Upper Lake Chelan Zone was also reviewed.

The average number of boats observed during peak-season weekend and weekday observations in the Upper Chelan Basin Zone was well below the total dock capacity (see the Recreation Needs Forecast and Analysis Report). During all day arrival rate monitoring, no boats were observed turning away due to the docks being too full. However, during field monitoring at Upper Chelan Basin Zone sites, the numbers of boats observed at docks were at the estimated boat capacity of the docks on occasion at Lucerne Campground, Moore Point, Flick Creek, Manley Wham, and Purple Point.

Because most visitors at Upper Chelan Basin Zone sites use boating facilities to access the sites, the total visitor use at sites was also compared with the docking capacity. When comparing the dock capacity with the estimated average peak-season weekend use (the busiest observed use), the current dock facilities appear to be meeting current demands (Table 3-3). However, all docks, except for Refrigerator Harbor, Stehekin, and Weaver Point, are at their estimate capacities on some peak-season weekends.

Monitoring in 1998 and 1999 indicated that watercraft use in the Upper Chelan Basin Zone during the busiest time of the year (average peak-season weekend) is well below half the recommended standards applicable to rural areas (Table 12).

Projected 2020 average number of boats at recreation sites in the Upper Chelan Basin Zone is below the total dock capacity (see the Recreation Needs Forecast and Analysis Report). Comparisons of projected average peak-season weekend use at recreation sites with the current Upper Zone dock capacity (Table 12) also indicate that future demand will be met with existing facilities. When reviewing each site individually, it appears that most sites have adequate dock capacity to meet average peak-future demands except for Moore Point, Flick Creek, and Purple Point. It can be expected that most docks in the Upper Zone will be full more often during peak-season weekends and holidays in the future.

Although the overall current dock capacity in the Upper Chelan Basin Zone appears to meet current and future demands, surveys at Upper Zone recreation sites have indicated needs for better maintenance of existing docks.

Future watercraft use is expected to remain well below standards in the Upper Chelan Basin Zone.

Trails

Access to over 200 miles of trails is provided at seven out of the eight recreation sites in the Upper Chelan Basin Zone study area. The only recreation site that does not have trails connecting to the Lake Chelan National recreation Area trail network is Manley Wham. Although most people that visit Upper Chelan Basin Zone sites participate in walking, and many visitors participate in hiking and backpacking during their visit, these types of activities are not generally their primary reason for visiting Upper Chelan Basin Zone recreation sites. Based on surveys and observations, construction of additional trails within the Upper Chelan Basin Zone is not considered a high priority, although existing trails should be maintained and in some cases improved.

Dispersed Use

Relatively few people were observed along undeveloped shorelines in the Upper Chelan Basin Zone. No people were observed during peak-season weekdays and off-season, and only an average of four people per day was observed during peak-season weekends. The few people who were observed were sunbathing/swimming/wading, and walking. Current and projected future dispersed-activity is not expected to significantly impact the shorelines or require developed facilities to meet estimated demands.

3.4 Ability of Project Area to Accommodate Needs

All three lake use zones have and will continue to receive development pressures from outside the local area. The lake is a regional recreation resource and, as a result, receives a large increase in both tourism and seasonal population during the period from May through September. This population influx has resulted in construction of tourist resorts and motels, as well as summer homes and cabins in the Lower Chelan Basin Zone. Development of facilities for this seasonal population has put a premium on land with view or shoreline amenities and much of the land in the lower end of the lake is privately owned. Availability and cost of land will constrain large-scale tourism expansion at the lower end of the lake.

Up-lake recreation use is influenced by the road-less character and inaccessibility by car. The terrain in the Middle and Upper Zones is steep. Slopes run directly into the lake, with no flat beaches or shoreline. Recreation sites that do exist in the Middle and Upper Zones are located on alluvial fans at stream mouths, with limited developable area. Limited access, the shortness of the tourist season, limited developable area, and management objectives of the area will limit growth and expansion in these areas.

Unlike the Middle Chelan Basin Zone where development is generally limited to alluvial fans at stream mouths, sites in the Upper Chelan Basin Zone are located at broader based alluvial fans with expansion opportunities. The Stehekin Valley, for example, is a broader glaciated valley. Access in the Upper Chelan Basin Zone is limited, but the tourist season is year-round and opportunities to expand developed recreation sites are available in most of the existing campground or day use areas.

Recreation managing agencies and organizations in the Project Area, including Chelan County PUD, the City of Chelan Parks and Recreation Department, Manson Parks and Recreation District, Washington State Parks and Recreation Commission, USDA Forest Service, NPS, and the Lake Chelan Recreation Association, have identified several projects and expansion opportunities at existing recreation sites that could satisfy future demands and needs in the area. These opportunities are described in sections 4 and 5, below.

Table 10: Summary of Lower Chelan Basin Facilities Current and Projected Peak Day Facility Utilization

Activity	Existing Facilities	Design Standards	Turnover Factor	Existing Facility Daily Capacity	Design Load (Average Daily Peak) ¹		Facility Load (Utilization) Lower Chelan	
					Initial 1998	Future 2020	Initial 1998	Future 2020
Camping:	390 Campsites	5 people/campsite	1	1,950 people/day	1,366 people/day	1,916 people/day	70%	98%
Boating:	10 Launch Lanes ²	40 boats/lane/day 3 persons/boat	1	1,200 people/day ²	865 people/day ²	1,200 people/day ²	72%	100%
	226 Vehicle/Trailer Parking spaces	3 people/car	2	1,356 people/day	800 people/day	1,000 people/day	60%	74%
	226 Vehicle/Trailer Parking spaces	1 trailer parking space/70 - 50 acres of water	N/A	N/A	205 - 288 parking spaces	N/A	N/A	N/A
	14,400 Surface Water Acres	33 acres/watercraft	N/A	435 watercraft at one time	212 watercraft	300 watercraft	49%	70%
Non-Boating Day-Use:	110 acres ³	20 people/acre	3-beach 2-other	5,500 people/day	3,746 people/day	5,254 people/day	68%	96%
	513 day-use Parking Spaces ^{3,4}	3 people/car	3-beach 2-other	3,850 people/day	3,746 people/day	5,254 people/day	97%	137%
	134 Picnic Tables	4 people/table	2	1072 people/day	603 people/day	846 people/day	56%	80%
	3.9 acres designated swim beaches	220 people/acres	3	2,574 people/day	2,320 people/day	3,254 people/day	90%	126%
	2.1 miles trails/walkways	90 people/mile/day	1	189 people/day ⁵	174 people/day ⁵	244 people/day ⁵	92%	129%

1. Design Load based on the busiest time of the year. For all activities, except for trail use, average peak-season weekend use estimates showed greatest use. For trail/walkway activity visitor use estimates, average peak-season weekday estimates were greater.
2. Boat launch data includes launch lanes and use estimates for Lakeshore Marina Boat Launch (not included in Needs Analysis Report).
3. For non-boating day use, the Recreation Needs Forecast and Analysis Report combines both site acres and number of parking spaces to estimated physical capacity due to the lack of parking and number of walk-ins at Manson Bay Park and Willow Point Park.
4. Off-site parking at Don Morse Memorial Park is not included in the total number of parking spaces.
5. Trail use estimates include people observed participating in trail activity such as walking, jogging, off-road biking, rollerblading/skating within monitored parks and not necessarily on trails/walkways.

Table 11: Summary of Middle Chelan Basin Facilities Current and Projected Peak Day Facility Utilization

Activity	Existing Facilities	Design Standards	Turnover Factor	Existing Facility Daily Capacity	Design Load (Average Daily Peak) ¹		Facility Load (Utilization) Middle Chelan	
					Initial 1998	Future 2020	Initial 1998	Future 2020
Camping:	41 Campsites	3 people/campsite 5 people/campsite	1	123 people/day - 205 people/day	68 people/day	95 people/day	55% 33%	77% 48%
Picnicking	43 picnic tables	4 people/picnic table	1.5	258 people/day	92 people/day ²	129 people/day ²	36%	50%
Camping/ Picnicking	44 camp-picnic sites	3 people/site 5 people/site	1.5	198 people/day 330 people/day	127 people/day	179 people/day	64% 38%	90% 54%
Boating:	10 docks - 67 boats	3 people/boat	1.5	300 people/day	127 people/day	179 people/day	42%	60%
	12,000 Surface Water Acres	66 acres/ watercraft	N/A	180 watercraft at one time	27 watercraft	38 watercraft	15%	21%

1. Design Load based on the busiest time of the year - For all activities, average peak-season weekend visitor use estimates are used here.
 2. Includes average number of people observed picnicking as well as number of people camping.

Table 12: Summary of Upper Chelan Basin Facilities Current and Projected Peak Day Facility Utilization

Activity	Existing Facilities	Design Standards	Turnover Factor	Existing Facility Daily Capacity	Design Load (Average Daily Peak) ¹		Facility Load (Utilization) Upper Chelan	
					Initial 1998	Future 2020	Initial 1998	Future 2020
Camping:	41 Campsites	3 people/campsite 5 people/campsite	1	123 people/day - 205 people/day	42 people/day	59 people/day	34% 20%	48% 29%
Picnicking	13 picnic tables	4 people/picnic table	1.5	78 people/day	49 people/day ²	68 people/day ²	63%	87%
Camping/ Picnicking	41 camp-picnic sites ³	3 people/site 5 people/site	1.5	185 people/day 308 people/day	93 people/day ²	131 people/day ²	50% 30%	71% 43%
Boating:	8 docks - 43 boats	3 people/boat	1.5	191 people/day	93 people/day	131 people/day	49%	69%
	6,350 Surface Water Acres	66 acres/watercraft	N/A	96 watercraft at one time	32 watercraft	44 watercraft	33%	46%
<p>1. Design Load based on the busiest time of the year - For all activities, except for camping, average peak-season weekend use estimates showed greatest use. For camping visitor use estimates, average peak-season weekday estimates were greater for National Park Service sites and were the same for USDA Forest Service site; therefore, average peak-season weekday use estimates were used.</p> <p>2. Includes average number of people observed picnicking as well as number of people camping.</p> <p>3. Not including Stehekin Day-Use Area.</p>								

SECTION 4: DEVELOPMENT AND IMPLEMENTATION PLAN

Implementation of measures identified in this section will be coordinated and overseen by Chelan PUD in consultation with the LCRF. In the development of each measure, Chelan PUD will follow a number of general design guidelines including, safety, appropriate design standards and the value of a high quality visitor experience. In addition, visitor convenience will be taken into consideration as well as easy access to project lands and waters while being mindful of the long term operations and maintenance that accompanies new facilities and activities. This plan also provides for operation and maintenance of existing Project recreation facilities.

Development of Recreation Enhancement Options

Based on the studies and other material summarized in Sections 2 and 3 of this revised Plan, the SSWG identified projects that would enhance recreation in the Project Area. Projects were placed into four groups (camping, trail use, boating and other), and then prioritized based on five primary considerations:

- 1) Ongoing Project impacts
- 2) Consistency with study results
- 3) Effectiveness of proposed measure
- 4) Costs (including cost-sharing opportunities)
- 5) Existence of mandatory conditioning authority

Recreation Measures

The following are recreational measures to be implemented in this Plan:

- 1) Recreation Use Study and Management Plan Review
- 2) Whitewater boating in the Chelan River
- 3) Operation and maintenance of Riverwalk, Shore Access, Old Mill, Manson Bay parks
- 4) Reach 1 Access trail
- 5) Riverwalk Loop Trail extension
- 6) Sidewalk, Handrail and Landscaping under Dan Gordon Bridge
- 7) Micro parks feasibility study on Terrace Avenue and Water Street
- 8) Reservation of lands
- 9) Modifications for future trails

4.1 Recreation Use Study and Management Plan Review

Beginning in the 20th year of the effective date of the New License, and finishing in the 23rd year, Chelan PUD shall conduct a study assessing recreational use and needs within the Lake Chelan basin, at a cost not to exceed \$100,000. At least 180 days before implementing a study, the study and its implementation schedule will be submitted to FERC for approval.

The purpose of the Recreation Use Study is to define the existing recreational use in the Lake Chelan Basin including number of visits, recreational activity types, high use locations, and temporal trends. The Recreation Use Study will also evaluate recreation demand in the Lake Chelan Basin to determine whether demand is accommodated by existing facilities. Results from the study will aid resource agencies in developing continued concepts for the coordinated development and utilization of the lake's recreational resources.

As part of the Recreation Use Study, data will be collected in years 21 and 22 of the New License on recreation use in the Project Area from the Chelan Powerhouse to the head of Lake Chelan at Stehekin. A Recreation Use Assessment report will be completed in year 23 of the New License. The study area will include all public recreational resources within the Project boundary. The Recreation Use Study methodology may include, but is not limited to:

- Review of existing recreation resource assessment work
- Summary of current management plans and policies of agencies
- Inventory of existing public and private recreation resources
- Analysis of recreational activities and demand for facilities
- Analysis of recreational resource capacity for recreation development
- Recreation resource mapping

4.1.1 Recreation Resources Management and Implementation Plan Review Schedule

This Plan will be reviewed every six years to coincide with FERC's schedule for submittal of Form 80. The LCRF will meet within six months following submittal of Chelan PUD's FERC Form 80 to review federal, state and local recreation policies, goals and planning documents relevant to the Project Area.

The purpose of the LCRF is to exchange information related to recreation resources within the Project Area to improve future management decisions. Additionally, the LCRF will provide input and comment to the recreation use assessments plan and report conducted by a consultant chosen and funded by Chelan PUD during years 20 through 23 of the New License. Based on the results of the Recreation Use Assessment, the managing agencies and the LCRF may determine it necessary to reallocate the funds spent under this Plan. However, in no event shall a reallocation of funds increase the funding obligation by Chelan PUD.

4.2 Whitewater Boating in the Chelan River

Through the relicensing process, Chelan PUD studied a proposal by American Whitewater Affiliation for whitewater boating in the Chelan River. In 1999 an on land boating feasibility assessment was conducted (report dated Sept 1999) and in 2000 a boating feasibility assessment was done (report dated October 2000). The initial three miles of the Chelan River offer rapids categorized as Class II (novice). However, the river then quickly changes to Class V+ (expert) for approximately three-tenths of a mile.

License Article 407 – Settlement Agreement Article 11 (h 1-9)

Article 11(h)(1) through (9) provides as follows:

Within one year of the effective date of the New License, Chelan PUD shall file with FERC for approval, plans for a three-year whitewater boating monitoring study in the Chelan River. The whitewater boating monitoring plan shall be developed by Chelan PUD, in consultation with the American Whitewater Affiliation. Specifically:

(1) Upon FERC approval of such three-year study, Chelan PUD shall provide an annual schedule of whitewater releases for kayaks in the Chelan River during such three year period. Chelan PUD shall release flows on the second and fourth weekends in July and September, except as provided in subsection (10) of the Settlement Agreement. Flows on Saturdays shall be between 300 cfs and 375 cfs, and flows on Sundays shall be between 400 cfs and 450 cfs.

(2) Chelan PUD shall develop a reservation system for the whitewater boating monitoring study, whereby the scheduled water releases are made only if six or more kayakers make a reservation by 5:00 P.M. on the Thursday prior to the scheduled release date, and are physically present at the designated kayak put-in location by 10:00 A.M. on the date of the release, and liability insurance protecting the Chelan PUD's liability is in place, as provided in subsection (10). Additionally, each kayaker shall be required to sign a liability waiver in a form satisfactory to Chelan PUD prior to launching his or her kayak in the Chelan River. Only non-motorized, hard-shelled kayaks suitable for Class V whitewater shall be allowed, and no kayaker less than 18 years old shall be allowed. If the conditions contained in this paragraph are met, Chelan PUD shall begin the ramping up of releases to meet the flows specified in subsection (1) above at 11:00 A.M., and shall begin ramping-down no sooner than 6:00 P.M.

(3) A survey tool shall be designed by Chelan PUD, in consultation with American Whitewater Affiliation, to solicit input from whitewater boaters utilizing the Chelan River whitewater releases. The survey tool should at minimum query boaters on the suitability of the following: whitewater release dates, daily schedule, whitewater difficulty, spill volumes, access, carrying capacity, reservation system, and real time flow information.

(4) Chelan PUD shall conduct an annual meeting on or before May 1 whereby Chelan PUD and American Whitewater will review the annual whitewater report, as provided in subsection (5), and make adjustments as warranted to the annual schedule and spill volume, subject to the limitations in subsection (8) and (10), reservation system, and methods for liability protection for the upcoming year.

(5) Chelan PUD shall submit annual reports to FERC on or before June 1 for the previous year's whitewater boating monitoring study in the Chelan River for the initial three years after the effective date of the New License.

(6) Chelan PUD shall submit a final report upon completion of the three year whitewater boating monitoring study by May 1 on the fourth anniversary of the effective date of the new license. The final report should at a minimum include information on the dates and volumes of each release for the three year study period, annual use patterns, and an analysis of user preferences based on survey data. The report should also include recommendations for providing whitewater releases, if any, for the remainder of the license term. These recommendations should include at a minimum an annual schedule of releases including volume and timing, reservation system and minimum number of boaters required to trigger a release, and mechanism for liability protection.

Chelan PUD shall include with the final report documentation of consultation with American Whitewater Affiliation, copies of comments and recommendations on the final report. Chelan PUD shall allow a minimum of 30 days for the American Whitewater Affiliation to comment and to make recommendations prior to filing the final report with FERC for approval. If Chelan PUD does not adopt a recommendation, the filing shall include Chelan PUD's reasons for not doing so, based on among other things, any relevant project-specific information.

In the event that FERC fails to respond to the final report recommendations, the conditions associated with the three-year whitewater boating monitoring study shall remain in effect for a maximum of two years while pending a FERC ruling.

(7) Chelan PUD shall make publicly available for the three-year whitewater boating monitoring study and for the term of the New License real-time flow information via the Internet for the Chelan River. This information may be published on the Chelan PUD Web site or a third party Web site. The Internet site shall include at a minimum the annual schedule for whitewater releases, instructions and requirements for the reservation system, and real-time flow data information. Adjustments to the reservation system must be posted by May 1.

(8) Upon completion of the three-year whitewater boating monitoring study and for the remainder of the New License term, except as provided in subsection (10), Chelan PUD shall provide whitewater releases on the second and fourth weekends in July and September, provided that a minimum number of kayakers make a reservation by the Thursday prior to the scheduled release, through a reservation system developed and implemented by Chelan PUD, and are physically present by 10:00 A.M. on the date of the release. Chelan PUD, in consultation with American Whitewater Affiliation, may adjust the flow levels used following the three year study, but in no event shall the number of releases exceed eight, nor do the flow levels exceed 450 cfs. Chelan PUD shall also determine, in consultation with American Whitewater, the minimum number of kayakers required for future flow releases, but in no event should the number be less than six. Chelan PUD may also make changes to the schedule and/or reservation procedures, in consultation with the American Whitewater Affiliation.

(9) Chelan PUD shall not be obligated to provide whitewater boating flow releases in the Chelan River when the previous day's average Stehekin River inflow is less than 333 cfs, or when the Mid-Columbia Index is greater than \$150/MWh (\$2001) as adjusted pursuant to section 19.1 of the Agreement. (Appendix B)

4.3 Operation and Maintenance of Riverwalk, Shore Access, Old Mill, Manson Bay parks

Chelan PUD will continue to address public access and recreational use of Project lands. The 1976 Exhibit R identified four areas for recreation development. Chelan PUD developed the four recreation sites demonstrating Chelan PUD's commitment towards providing recreational facilities on Lake Chelan.

License Article 407 – Settlement Agreement Article 11 (i)

Chelan PUD shall continue, for the term of the New License, to own and operate the Riverwalk Park and Loop Trail and to maintain the shore access site, located in the City of Chelan. Chelan PUD shall continue, for the term of the New License and subsequent annual licenses, to own Old Mill Park and Manson Bay Park, and shall be responsible for oversight of related operation and maintenance agreements with Manson Parks Recreation District. (\$204,000 in 2001\$)

4.4 Reach 1 Access Trail

The Lake Chelan Project regulates flow in the Chelan River and currently restricts a majority of the area from public access due to safety and liability concerns about the hazardous terrain and potential necessary releases of water down the gorge without advanced warning. Chelan PUD owns a majority of the property surrounding the Chelan River.

The Recreation Needs Forecast and Analysis (Chelan PUD, July 19, 2000) identified that the greatest recreational needs in the Lower Chelan Basin Zone include access to the Chelan River and public trails. National, state, and local surveys have also indicated demands for trails more than any other type of facility. The addition of trails in the lower zone would meet the needs of a variety of recreational users and activities. In addition, trails would provide more year-round use than any other facility needs identified in the Project Area.

License Article 407 – Settlement Agreement 11 (j)

Beginning within one year of the effective date of the New License, Chelan PUD shall design and construct a non-motorized, non-paved, multi-use trail below the Lake Chelan Dam in Reach 1 of the Chelan River Bypassed Reach. The trail shall provide managed access to the Chelan River and connect to the Riverwalk Loop Trail. Planning and development shall be conducted by Chelan PUD, in consultation with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Reach 1 Access Trail shall not exceed \$250,000. The annual Estimated Cost to Chelan PUD for operation and maintenance of the trail is \$4,500 for the term of the New License. (Appendix C)

4.5 Riverwalk Loop Trail Extension

Chelan PUD constructed the Riverwalk Loop Trail in Riverwalk Park. Local stakeholders have requested that Chelan PUD provide an extension of the Riverwalk Loop Trail to cross the Chelan Dam and connect with the Reach 1 Access Trail.

License Article 407 – Settlement Agreement Article 11 (k)

Article 11(k) provides as follows:

Beginning within one year of the effective date of the New License, Chelan PUD shall design and construct a paved trail that links Chelan PUD’s existing Riverwalk Loop Trail to the Reach 1 Access Trail. Chelan PUD shall seek approval from FERC for crossing the Lake Chelan Dam as part of the trail extension design. If FERC denies approval to cross the Lake Chelan Dam, the trail design and construction shall only include a trail from Riverwalk Loop Trail along the south shoreline of the Chelan River to link with the Reach 1 Access Trail. Planning and development shall be conducted by Chelan, in consultation with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Riverwalk Loop trail extension shall not exceed \$500,000. The annual Estimated Cost to Chelan PUD for operation and maintenance of the trail is \$5,000 for the term of the New License. (Appendix D)

4.6 Sidewalk, Handrail, and Landscaping under the Dan Gordon Bridge

Chelan PUD owns and maintains Riverwalk Loop Trail which intersects with the Dan Gordon Bridge 97/364 Alt on SR 97A within the city of Chelan. There is disagreement between the Washington State Department of Transportation and the City of Chelan related to responsibility of the area under the northern shore of the Chelan River that passes beneath the Dan Gordon Bridge. In a letter dated July 12, 1999, Christine O. Gregoire, Attorney General of Washington, states that the Washington State Department of Transportation considers the area of sidewalk the responsibility of the City of Chelan. Chelan PUD is currently providing general park custodial activities at the site. The City of Chelan requested Chelan PUD also provide sidewalk maintenance and replace the handrail under the Dan Gordon Bridge.

License Article 407 (a)

Article 407(a) provides as follows:

The plan shall contain detailed descriptions of proposed measures to stabilize the sidewalk and replace the handrail along the north shore of the Chelan River, under the Dan Gordon Bridge. The plan shall contain a schedule for completing these measures. Beginning within one year of the issuance date of the license, the licensee shall assume responsibility for annual maintenance associated with the sidewalk and landscaping along the north shore of the Chelan River, beneath the Dan Gordon Bridge.

On May 31, 2007, Chelan PUD sent a letter to FERC asking for approval to expedite construction to repair the sidewalk and handrail along the north shore of the Chelan River, under Dan Gordon Bridge, which is located adjacent to the Chelan Riverfront Park and the Project’s Exhibit R. Due to the recent heightened awareness of the condition of this sidewalk and handrail and its threat to safety of life and property, Chelan County PUD made the decision to move ahead with this project. The project began on May 29, 2007 and was completed on June 18, 2007. Chelan PUD has now assumed responsibility for annual maintenance of this area as an extension of the current ongoing maintenance of Riverwalk Park. Details of the project,

communication with stakeholders, and photos before and after the completed work are outlined in Addendum E. FERC approval of this project was received July 9, 2007. (Appendix E)

4.7 Micro Park Feasibility Study on Terrace Avenue and Water Street

License Article 407 (b)

Article 407 (b) provides as follows:

The plan shall contain the results of a feasibility assessment for developing a micro park at the following licensee-owned parcels near Water Street near the City of Chelan: parcel #272214662242, #272214662229, and #272214662440. The purpose of the feasibility assessment is to determine if and how a micro park can be developed and whether the lands are needed for project purposes. The feasibility assessment shall include a description of the site topography and any constraints to site development; a description of adjacent land uses; detailed recommendations for developing the site, including costs for developing the site and anticipated benefits and use of the developed site; and an implementation schedule for any development recommendations.

A feasibility study was conducted in cooperation with the City of Chelan, the people along Water Street and Terrace Avenue, community members, and the Lake Chelan Recreation Forum. Although three micro park options were evaluated, the final recommendation was that a micro park was not considered to be feasible on the parcels owned by Chelan PUD, #272214662242, #272214662229, #272214662440. In addition, Chelan PUD has determined that these parcels should remain undeveloped for future project purposes. In the future, if the City of Chelan or local stakeholders construct trails, Chelan PUD will work with them to ensure integration with PUD owned lands and trails. (Appendix F)

4.8 Reservation of PUD owned lands

The City of Chelan identified that the community is in need of lands for future development of recreation facilities or enhancements, such as baseball or soccer fields. Chelan PUD owns property adjacent to the Chelan River that could be utilized for recreational and/or public development, while continuing to protect and maintain Project purposes.

License Article 407 – Settlement Agreement 11 (m)

Article 11 (m) provides as follows:

Beginning within 90 days of the effective date of the New License, Chelan PUD shall reserve by not selling or otherwise disposing of land located in Reach 1 of the Chelan River Bypassed Reach, within a portion of Parcel A of Chelan County Short Plat No. 3195 lying northeasterly of the Chelan Gorge Road. Chelan PUD shall reserve such land for future recreational development, while continuing to protect and maintain Project purposes. Development or maintenance associated with such future recreational facilities shall not be the responsibility of Chelan PUD. Pursuant to FERC regulation, Chelan PUD shall not allow permanent structures within 200 linear feet of the Chelan Project penstock's centerline.

4.9 Modifications for Future Trails

The City of Chelan and other local stakeholders may construct trails in the future that would connect to existing Chelan PUD parks and trails.

License Article 407(c) – Settlement Agreement 11 (p)

The licensee shall notify the Commission within 30 days of completing the modifications to the entrances and exits of the Old Mill Park, Manson Bay Park, and Riverwalk Park to accommodate the integration of future trails.

Revised exhibit drawings shall be filed, as appropriate, in accordance with Article 301. The 90-day deadline for filing the revised exhibits stipulated in Article 301 shall be referenced to the completion date of the measures.

Table 13: Recreation Plan Summary per the Settlement Agreement				
License Article and Measure	Agency/ Measure	Specific Action(s)	Implementation Schedule	Amount 2003 \$
License Article 407 Measure 4.1 4.1.1	Recreation Use Study Plan review	Chelan PUD conducts a study assessing recreational use and needs within the Lake Chelan basin Every six years Recreation Plan reviewed by LCRF and Form 80 submitted to FERC	Beginning in the 20 th year of the effective date of New License and ending in the 23 rd year. (Estimated to begin in 2008 pending FERC approval of this plan.) At least 180 days before implementing a study, the study and its implementation schedule will be submitted to FERC for approval.	\$100,000
License Article 407 Measure 4.2	Whitewater Boating	Chelan PUD develops and submits to FERC a plan for a three-year whitewater boating monitoring study in the Chelan River	Implementation of the plan will begin following approval by FERC.	
License Article 407 Measure 4.3	Operation and Maintenance of Riverwalk, Shore Access, Old Mill, Manson Bay Parks	Chelan PUD continues for the term of the New License to own and operate the Riverwalk Park and Loop Trail and to maintain the shore access site and to continue to own Old Mill Park and Manson Bay Park and oversee O & M agreement with Manson Parks and Recreation District	Throughout the term of the New License	\$204,000 annually (2001 \$)
License Article 407 Measure 4.4	Reach 1 Access Trail	Chelan PUD designs and constructs a non-motorized, non-paved multi-use trail below the Lake Chelan Dam in Reach 1 of the Chelan River Bypassed Reach O & M	Within one year of approval by FERC of Recreation Resources Management and Implementation Plan submitted by November 6, 2007. Annually throughout the New License	\$250,000 Trail \$4,500 Annually O & M

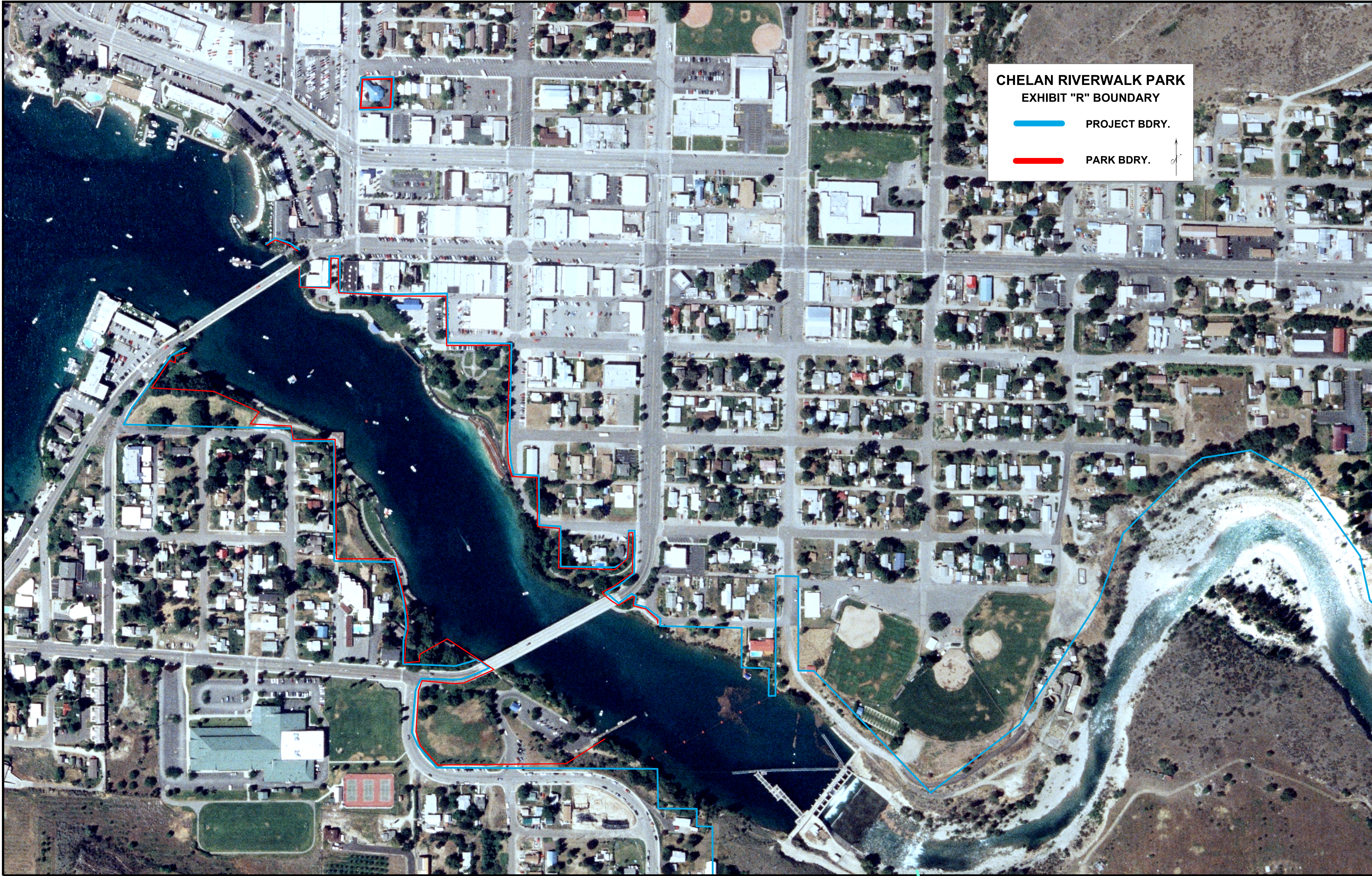
Table 13: Recreation Plan Summary per the Settlement Agreement				
License Article and Measure	Agency/ Measure	Specific Action(s)	Implementation Schedule	Amount 2003 \$
License Article 407 Measure 4.5	Riverwalk Loop Trail Extension	Chelan PUD designs and constructs a paved trail that links Riverwalk Loop Trail to Reach 1 Access Trail O & M	Within one year of approval by FERC of Recreation Resources Management and Implementation Plan submitted by November 6, 2007. Annually throughout the New License	\$500,000 \$5,000 Annually O & M
License Article 407 Measure 4.6	Sidewalk, handrail and landscaping under Dan Gordon Bridge	Chelan PUD implements efforts to stabilize the sidewalk and replace the handrail along the north shore of the Chelan River under the Dan Gordon Bridge	Project began May 29, 2007 and was completed June 18, 2007. Approval for this project was received from FERC July 9, 2007.	\$46,000 (2007 \$)
License Article 407 Measure 4.7	Micro Park Feasibility Study on Water Street and Terrace Avenue	Chelan PUD conducts a feasibility study on whether or not a micro park could be developed along Water Street and Terrace Avenue	Feasibility study to be completed along with recommendations and submitted to FERC as part of the revised Recreation Management Plan by November 6, 2007	
License Article 407 Measure 4.8	Reservation of Lands	Chelan reserves for recreational purposes, by not selling or otherwise disposing of, land located in Reach 1 – Parcel A – Chelan County Short Plat No. 3195	Beginning within 90 days of the effective date of the New License	
License 407 Measure 4.9	Modifications for Future Trails	Chelan PUD works with City of Chelan and local stakeholders who construct trails in the future to ensure that the trails connect to existing Chelan PUD parks and trails.	Chelan PUD will notify FERC within 30 days of completing modifications to entrances to PUD parks to accommodate future trails: Old Mill Park, Manson Bay Park, Riverwalk Park	

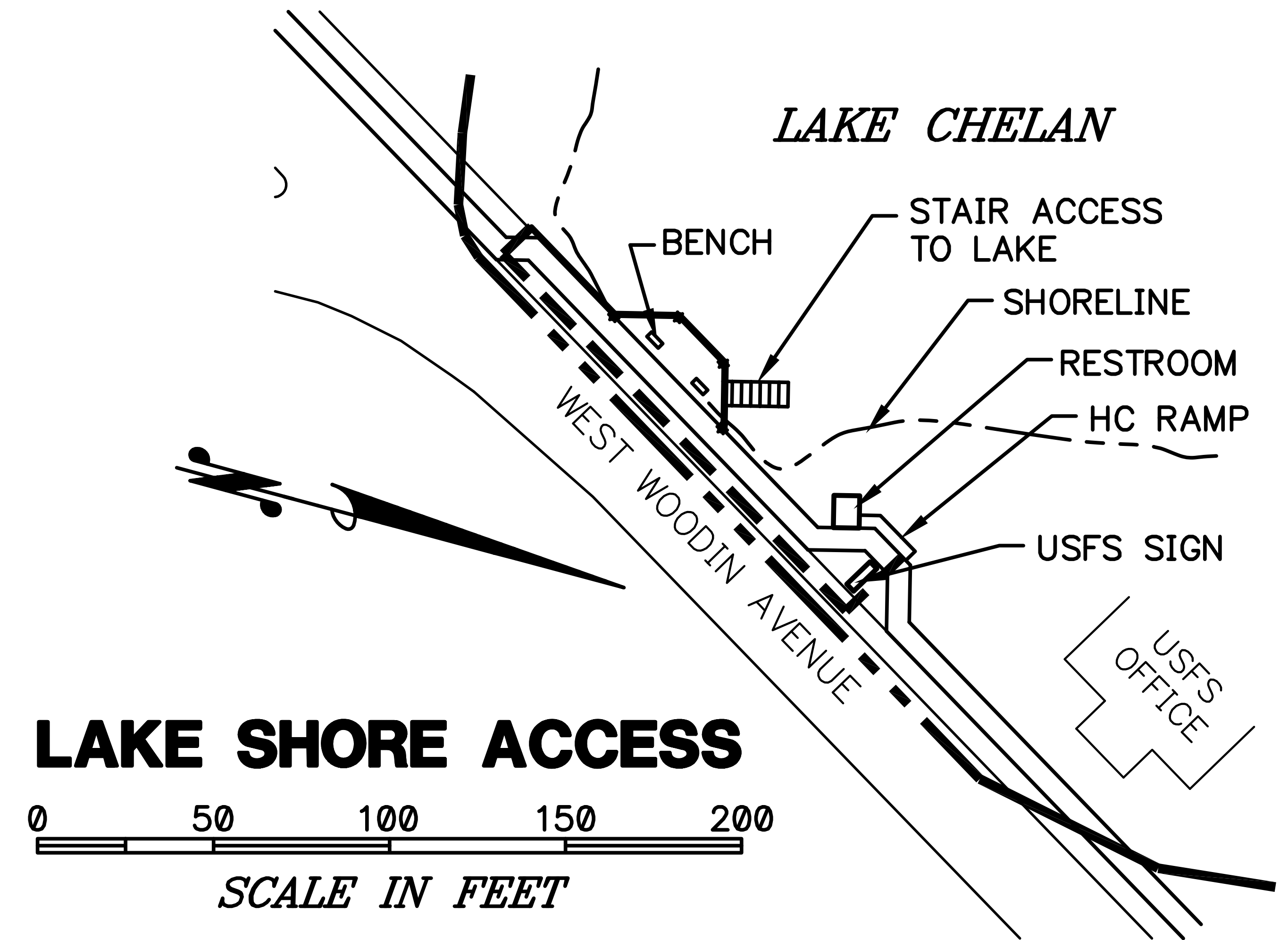
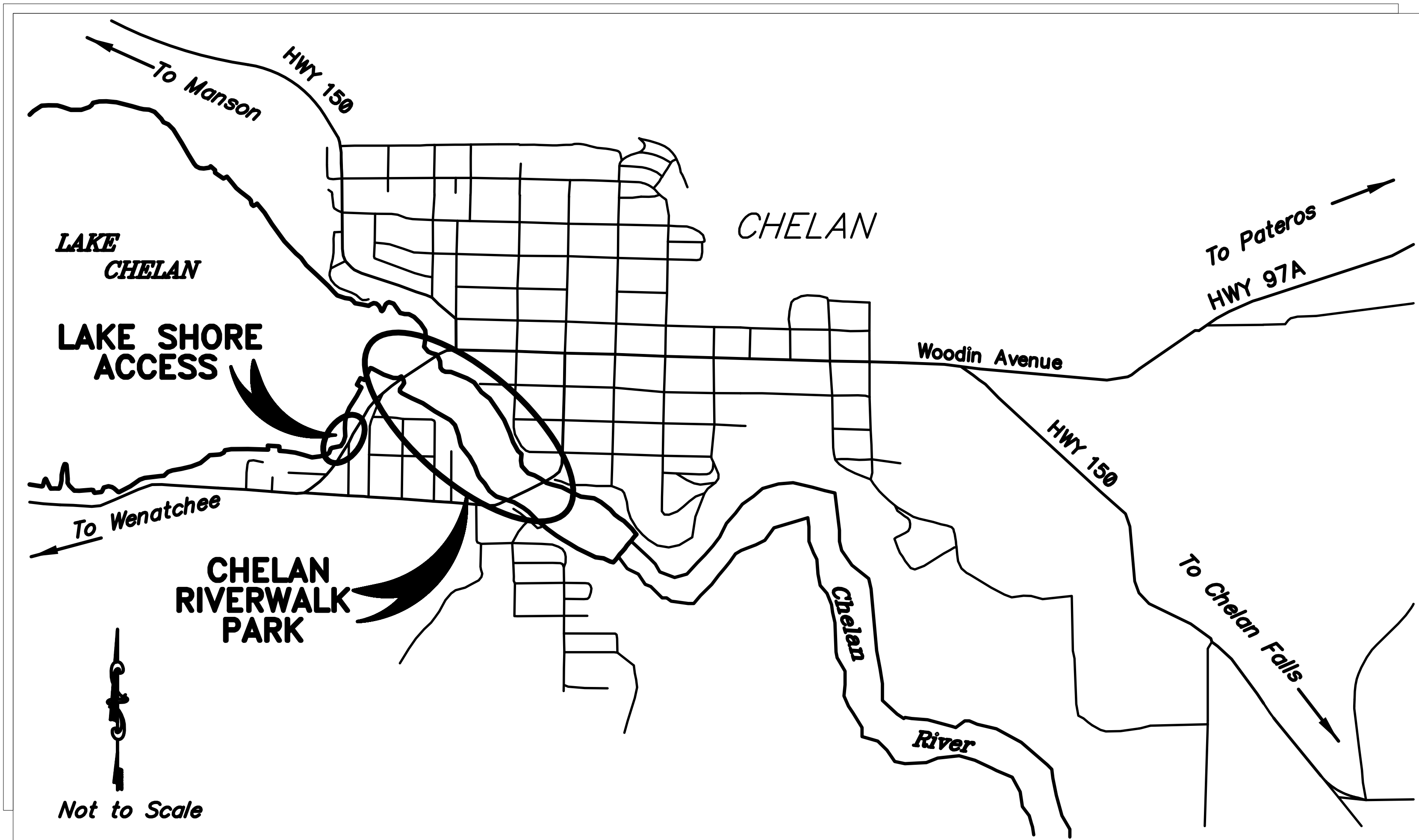
***APPENDIX A: AS-BUILT DRAWINGS OF CHELAN PUD
RECREATION SITES***

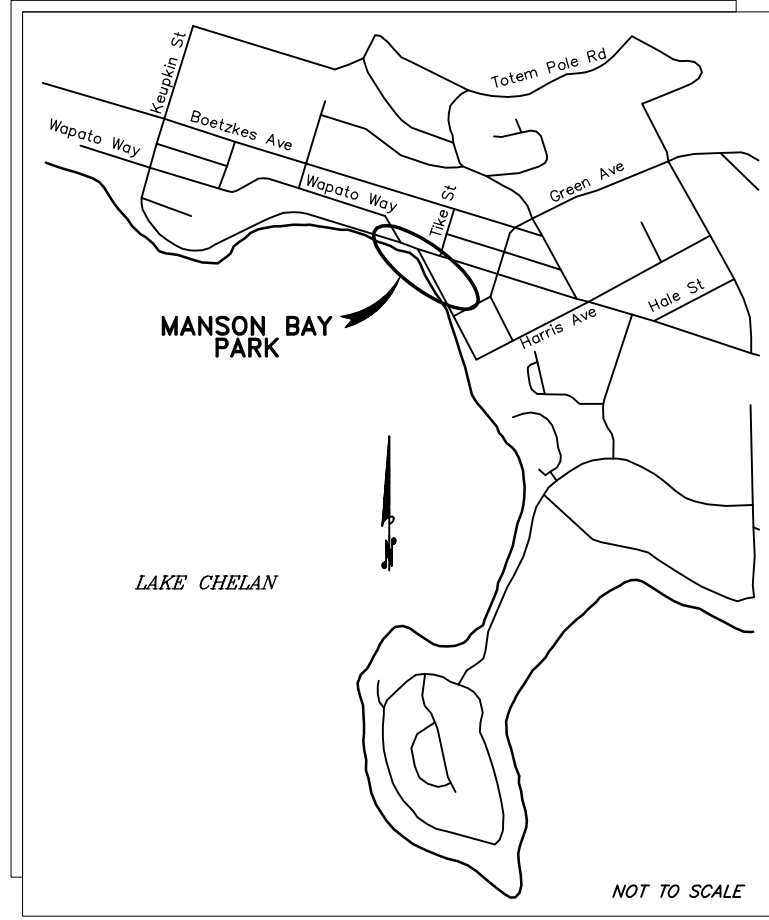
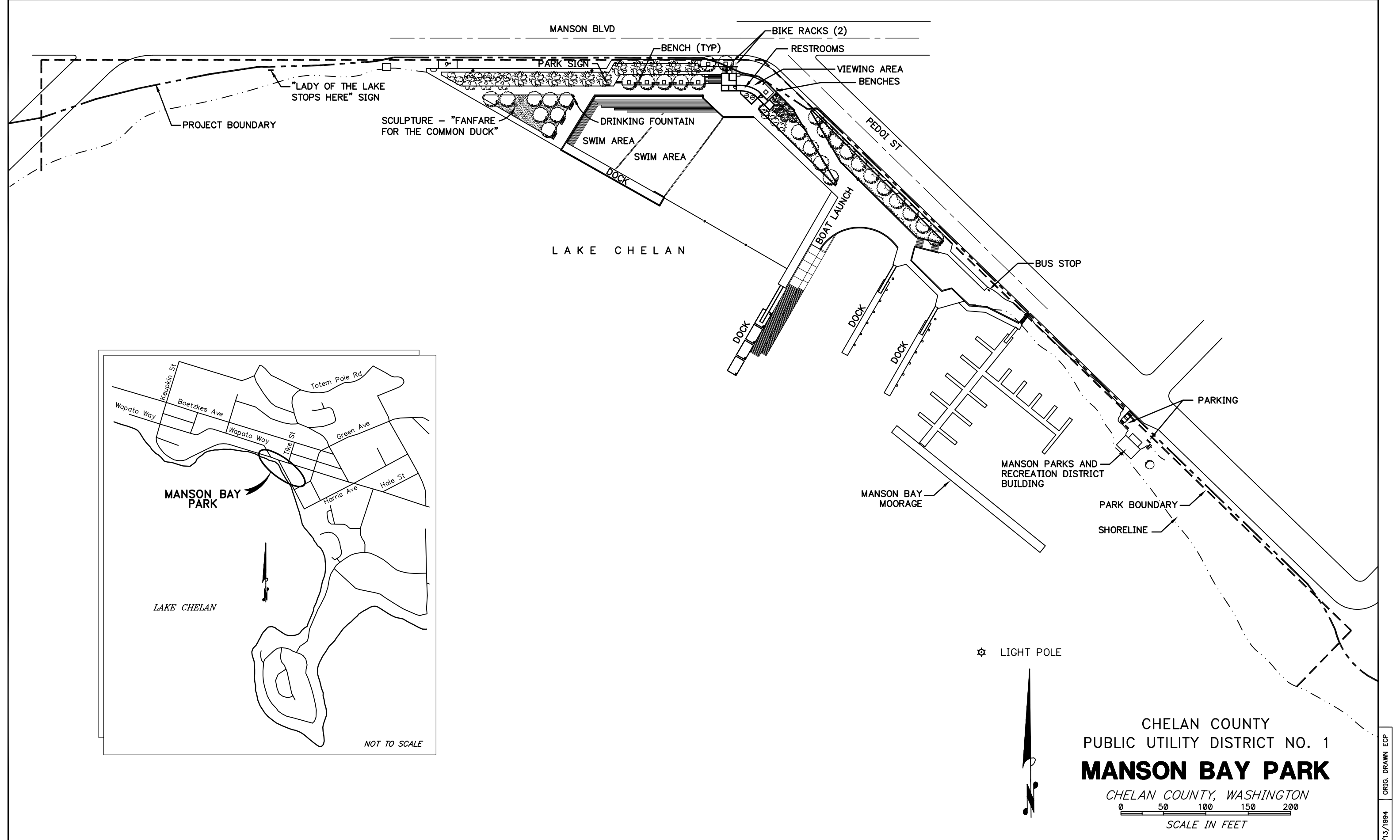
**CHELAN RIVERWALK PARK
EXHIBIT "R" BOUNDARY**

 PROJECT BDRY.

 PARK BDRY.







CHELAN COUNTY
 PUBLIC UTILITY DISTRICT NO. 1
MANSON BAY PARK
 CHELAN COUNTY, WASHINGTON
 0 50 100 150 200
 SCALE IN FEET

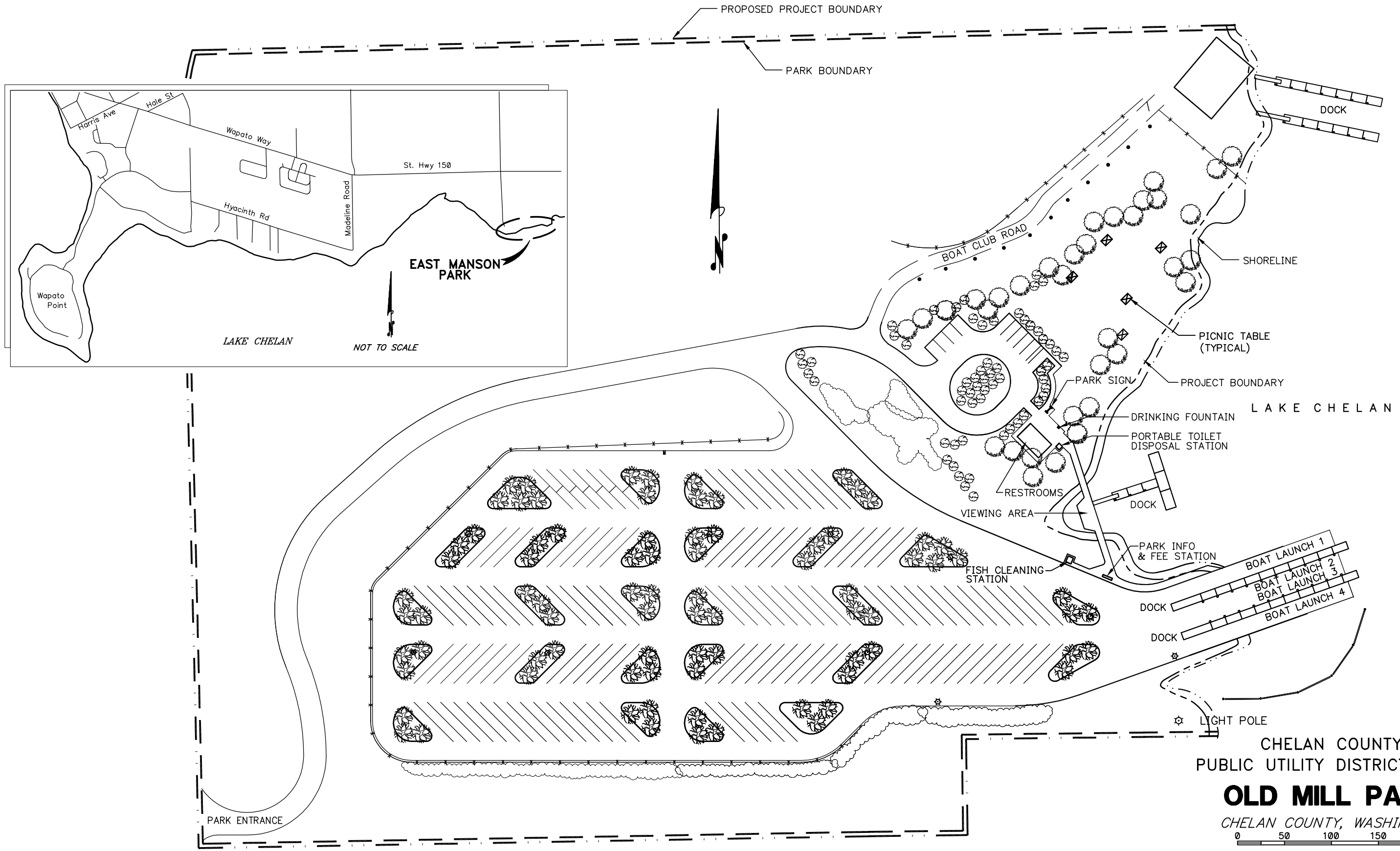
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PRIM. ENG.	SEE DWG	2	3/16/2007	1"	
2ND ENG.	REV	2	DATE	REVISION	REQ. BY
PROJ. MGR.	DATE				DRFT

PUBLIC UTILITY DISTRICT NO. 1
OF CHELAN COUNTY
 WENATCHEE, WASHINGTON

Manson Bay Park
MANSON BAY
 PARK LAYOUT AND FACILITIES

SHEET 1 OF 1
REVISION 2
DATE 3/16/2007
DWG. 0905-50YP-0001

ORIG. DATE 1/13/1994 ORIG. DRAWN ECP



CHELAN COUNTY
 PUBLIC UTILITY DISTRICT NO. 1
OLD MILL PARK
 CHELAN COUNTY, WASHINGTON
 0 50 100 150 200
 SCALE IN FEET

CHELAN PUD NO.1		SCALE SEE DWG	BAR IS ONE INCH ON ORIGINAL DRAWING.	VERIFY SCALE 1"	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
PRIM. ENG.		0	2005-11-09		MS MPS
2ND ENG.		REV	DATE	REVISION	REQ. BY DRFT
PROJ. MGR.					

**PUBLIC UTILITY DISTRICT NO. 1
 OF CHELAN COUNTY**
 WENATCHEE, WASHINGTON

CHELAN COUNTY

Old Mill Park
 OLD MILL
 PARK LAYOUT & FACILITIES

SHEET 1 OF 1
REVISION 0
DATE 2005-11-09
DWG. 0906-50YP-0004

ORIG. DATE 1994-01-13 ORIG. DRAWN ECP

***APPENDIX B: WHITEWATER BOATING MONITORING STUDY
PLAN***

CHELAN RIVER WHITEWATER BOATING MONITORING STUDY PLAN

Final

**LAKE CHELAN HYDROELECTRIC PROJECT
FERC Project No. 637**

September 18, 2007



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

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SECTION 1: INTRODUCTION

Public Utility District No. 1 of Chelan County (Chelan PUD) owns and operates the Lake Chelan Hydroelectric Project (FERC Project No. 637) on the Chelan River in north central Washington. The project, originally licensed in 1926, consists of a 40-foot high concrete gravity dam, a 2-mile long steel and concrete penstock, and a powerhouse. The Chelan River flows approximately four miles from the outlet of Lake Chelan into the Columbia River, providing about three miles of low gradient braided river, one-third-mile of higher gradient water that includes the "Gorge" featuring several significant rapids, and one-half mile of low gradient water that extends to the powerhouse tailrace and the Columbia River. While the upstream waters of 50-mile long Lake Chelan provide well-known recreational resources, the bypass reach has received far less attention from recreational enthusiasts. Access to the bypass reach is difficult, particularly in the Gorge. Although a road runs along the canyon, it only approaches the river in a few places (see Figure 1).

Chelan PUD is permitted to operate the project according to an existing FERC license issued November 1, 2006 that is set to expire November 1, 2056. Under this license, FERC has authorized a three-year whitewater boating monitoring study in the Chelan River. This whitewater boating monitoring plan was developed by Chelan PUD in consultation with the American Whitewater Affiliation and the Lake Chelan Recreation Forum. Under this study, Chelan PUD provides an annual schedule of whitewater releases for kayaks in the Chelan River during the three-year period. In addition, a reservation system has been developed and a survey tool that will be utilized with all boaters before and after their whitewater boating experience on the Chelan River. Evaluation meetings will be held each year and annual reports submitted to FERC.

Following the three year whitewater boating monitoring study, a final report will be submitted to FERC.

SECTION 2: DESCRIPTION OF THE CHELAN RIVER

The Chelan River begins below the dam and continues for approximately 4 miles until it joins the tailrace of the powerhouse near the Columbia River (Figure 1). For planning purposes, Chelan PUD has divided the bypass reach into four distinct sections, as shown on the map.

Section 1 is 2.29 miles long, and is characterized by a relatively wide flood plain, low gradient (approximately 55 feet/mile), and substrate comprised of large cobble and boulders.

Section 2 is 0.75 mile long and is a transition zone between the wider floodplain and the Gorge. It is characterized by a narrow channel, canyon walls, moderate gradient (approximately 57 feet/mile), and larger cobble and boulder substrate than Section 1.

Section 3 is “Chelan Gorge,” and is 0.38 mile long. The canyon walls in this section are very steep and narrow, and the gradient of the channel is steep (approximately 480 feet/mile). The channel is characterized by cataracts from 5 to 20 feet high, numerous cascades, bedrock chutes, and large, deep pools. The substrate is very large, with some boulders exceeding 20 feet in diameter.

Section 4 is located below the Gorge area and is 0.49 mile long. It is characterized by a wide flood plain, gravel/cobble/boulder substrate, and low gradient (approximately 22 feet/mile). This section extends from the bottom of the Gorge downstream approximately 2,600 feet to the confluence of the powerhouse tailrace.

For the purposes of this plan, the Gorge (Section 3) has been further divided into three areas based on the type of specific rapids:

Entrance Exam (a complex, multi-drop rapid at the start of the Gorge; Map 4-1)

Central Gorge (the series of drops downstream; Map 4-2), and the

Lower Gorge (the lower gradient boulder gardens at the end of the Gorge; Map 4-2).

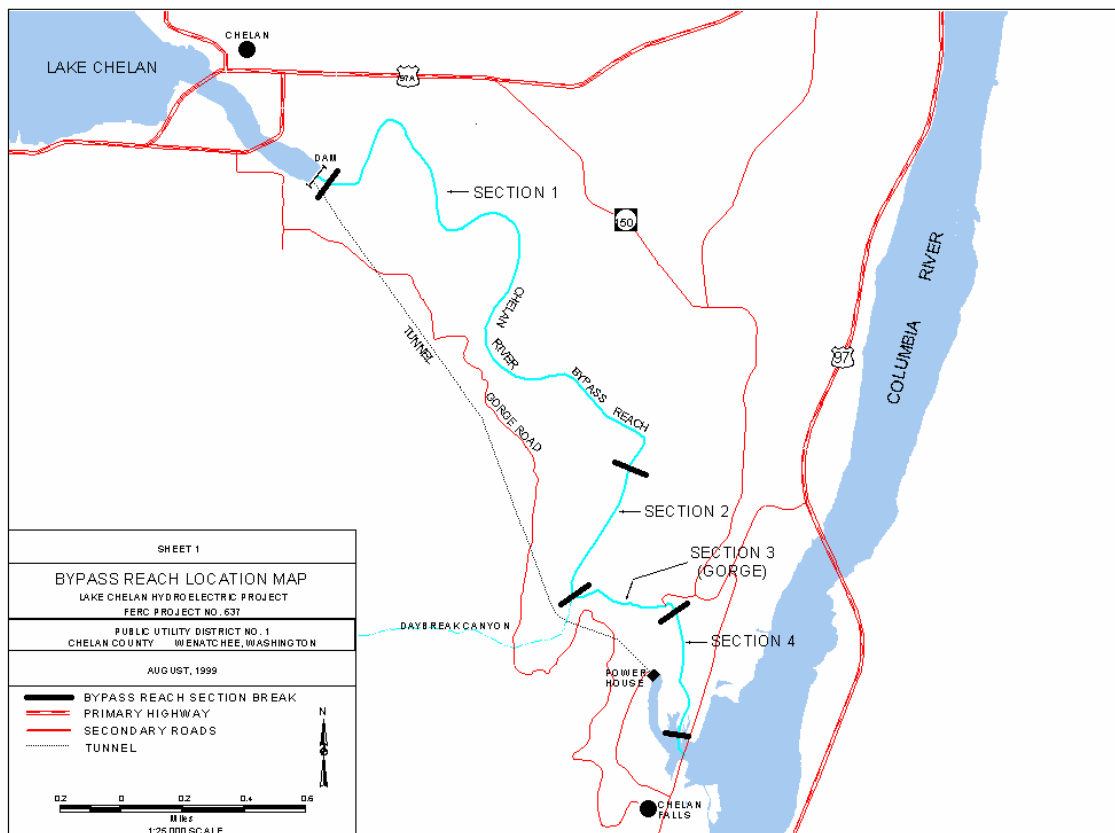


Figure 1: Chelan River and Vicinity, Including Chelan PUD Section Designations

2.1 Launch and Take Out Facilities

Put-in. Just below the dam on river-left, an undeveloped road and short trail approach the river. The trail ends on a wide gravel bar that provides a suitable staging area for kayaks and other similar craft. There are parking and restroom facilities at a nearby City park.

Mid-river take-out. For boaters interested in avoiding the Gorge (or starting their trip immediately at the top of the Gorge), it is possible to leave the bypass reach at the mouth of Daybreak Canyon. There is an eddy above the Entrance Exam, and at observed flows there is a relatively flat area on rocks next to the river. However, there is no established trail or access, and the climb from the river to the Gorge Road is steep and potentially hazardous, particularly in the first few hundred feet. Hauling a boat up this route would present a significant challenge.

Take-out. There is a developed boat launch at Powerhouse Park at the confluence of the Chelan and the Columbia. The park also has extensive parking, restrooms, a large picnic shelter, and an extensive lawn for organizing/drying gear.

2.2 Specific Descriptions of Major Rapids in the Chelan River Gorge

Entrance Exam (Class V). This rapid has a series of four drops in short succession at the start of the Gorge (Map 4-1). It is identified by a large rock about 100 feet upstream of a sharp left bend at the mouth of Daybreak Canyon. There is a large pool at the top of the reach, allowing boaters to scout and portage the entire rapid, as well as a smaller eddy downstream of the first drop where boaters can also get out of the river. However, once boaters commit themselves to the second drop in the series, they probably have to run the rest as a group.

First Drop. This initial challenge is a short waterfall with a strong hydraulic at the bottom. The hole appears weaker in the center, and was weaker at the lower two flows (273 cfs and 391 cfs). This hole is not the main problem in the rapid, but it requires a clean run because of the drops that lie ahead. Boaters pushed off line here face a more difficult run.

Second Drop/Punch Bowl. The second major challenge in this rapid features a steep, horseshoe shaped falls immediately above a turbulent re-circulating eddy (the “Punch Bowl”) that extends below an undercut rock. The more “clean” boating line at all three flows is just left of a distinct flatter rock on river-right.

Pile Up. The third challenge in the rapid is immediately downstream of the Punch Bowl, and features a river-wide hole. This hydraulic appears weaker in center-right. There is a small eddy on river right against the cliff after Pile-up.

Final Plunge. This last challenge is a sharp drop and hole between two pinching walls; much of the current is directed at the right hand wall, where there is also considerable turbulence. Boaters generally run it after catching the small eddy below Pile-up, moving strongly from right to left-center.

There are scouting and portage options along Entrance Exam from river-right. Boaters who portage can seal launch into the pool below Final Plunge. Boaters can access the area from the Gorge Road (via the steep route down Daybreak Canyon) as well as from the eddy upstream of the rapid. There are options for establishing safety along the rapid, particularly below Pile-up and Final Plunge, the two holes where boaters are more likely to become stuck or have to swim.

Central Gorge. A few hundred feet downstream of Entrance Exam are a series of five major rapids in the Central Gorge (Map 4-2). Unlike Entrance Exam, each of these are separated by pools with less turbulent water, and each can be scouted or portaged independently.

Double Slide (Class V). The first major rapid in the Central Gorge is “Double Slide,” which features a boulder field and swift currents leading to side-by-side chutes. The river-left slide is longer, more gradual, and ends in a less turbulent pool. The river-right slide (labeled “Chelan Chute”) is more abrupt and concentrated, and ends in turbulence against the mid-channel dividing rock, which is undercut. A short drop and hole, followed by an exposed rock and the right-to-left current, make access to the river-left slide more difficult.

There are good scouting options for this rapid on the river-right side. There is a portage route on river-left, well upstream of the entrance into the left hand slide. The portage option on river-right would involve a very difficult seal launch into the pool below.

Super Boof Falls (Class IV/V). The next rapid is a pour-over falls directly downstream of Double Slide; during an on-land assessment it was named “Car Wreck Falls” after an abandoned car in the cliffs (this has since slid into the river and is out of sight). All boaters ran this rapid “boofing” off a rock at the top of the falls on river-left to avoid heavy turbulence at the bottom of the falls. There are scouting options on both sides of the falls. There are portage options on river-left.

Throne Falls (Class V). This is another steep drop with strong turbulence at the bottom; the rapid is named for a distinctive boulder shaped like a throne downstream of the falls. Boaters generally run center-right but with varying bow angles. There is heavy turbulence on both the right and left sides of the falls.

Pinnacle Falls (the pool before the falls). The pool between Throne and Pinnacle Falls can be smaller narrowing the margin of error if boaters fail to have a clean run. Scouting and portaging options are on river-right. There is a good eddy upstream of the falls. Portage options are available from river-right that ends with a short seal launch.

Pinnacle Falls (Class VI). This falls is immediately downstream of the Throne and is identified by a tall pillar of rock on river-right. The falls is steep and high (probably over 20 feet), concentrating the entire flow of the river through a single slot. The bottom of the falls is very turbulent. Boaters often portage this area. The portage is rated “slightly difficult” by all boaters and involves a short carry over the saddle between the pinnacle and right canyon wall, and then a short seal launch into the pool below. There are good scouting options from the river-right eddy above the falls.

Boulder Sieve. The final major rapid in the Central Gorge occurs downstream of Pinnacle Falls, and is identified by several large boulders that act as a sieve in the river; there are at least two distinct chutes through undercut rocks; the total drop is about fifteen feet. Boaters generally do not run this rapid, choosing instead to ground themselves on a rock on river-left, then seal launch down a partially wetted incline to the side of the slots and their heavier turbulence. One boater often gets out of his boat to assist the other kayakers onto the rock and then shove them over the other side. As a result, many boaters do not even get out of their boats for this portage. The ride down the incline on the other side is steep and bumpy and ends in turbulent water that masks rocks that can easily be hit by boaters. Scouting appears best from the left side. A longer portage to avoid the seal launch may be possible on the left side as well, but might require ropes to bypass larger boulders.

Lower Gorge (Class IV/V). Downstream of Boulder Sieve, the river becomes less constricted and has a slightly lower gradient. There are several significant drops and boulders in this reach, but the rapids generally have less powerful hydraulics than those upstream. The rapids above the Old Highway Bridge have been collectively labeled “Extra Credit,” while the series of larger boulders and constricted routes downstream of the bridge have been collectively labeled “Fat

Lady,” a reference to the colloquialism, “the opera isn’t over until the fat lady sings.” There were at least two routes in Fat Lady that were very constricted and cause boaters to hit large rocks as they passed by. One opening was less than the width of a kayak and stopped some boaters’ momentum. At another drop at the very end of the run, all boaters chose to avoid the center route (where most of the water went) in favor of narrow, shallower routes on the sides because of a sieve with potential pinning hazards.

In Extra Credit, kayakers found at least one good play hole for rodeo maneuvers (endos, cartwheels, pirouettes, etc.) There are numerous opportunities for boaters to get out and scout either Extra Credit or Fat Lady from the various boulders, and numerous portage and rescue options are also available if needed.

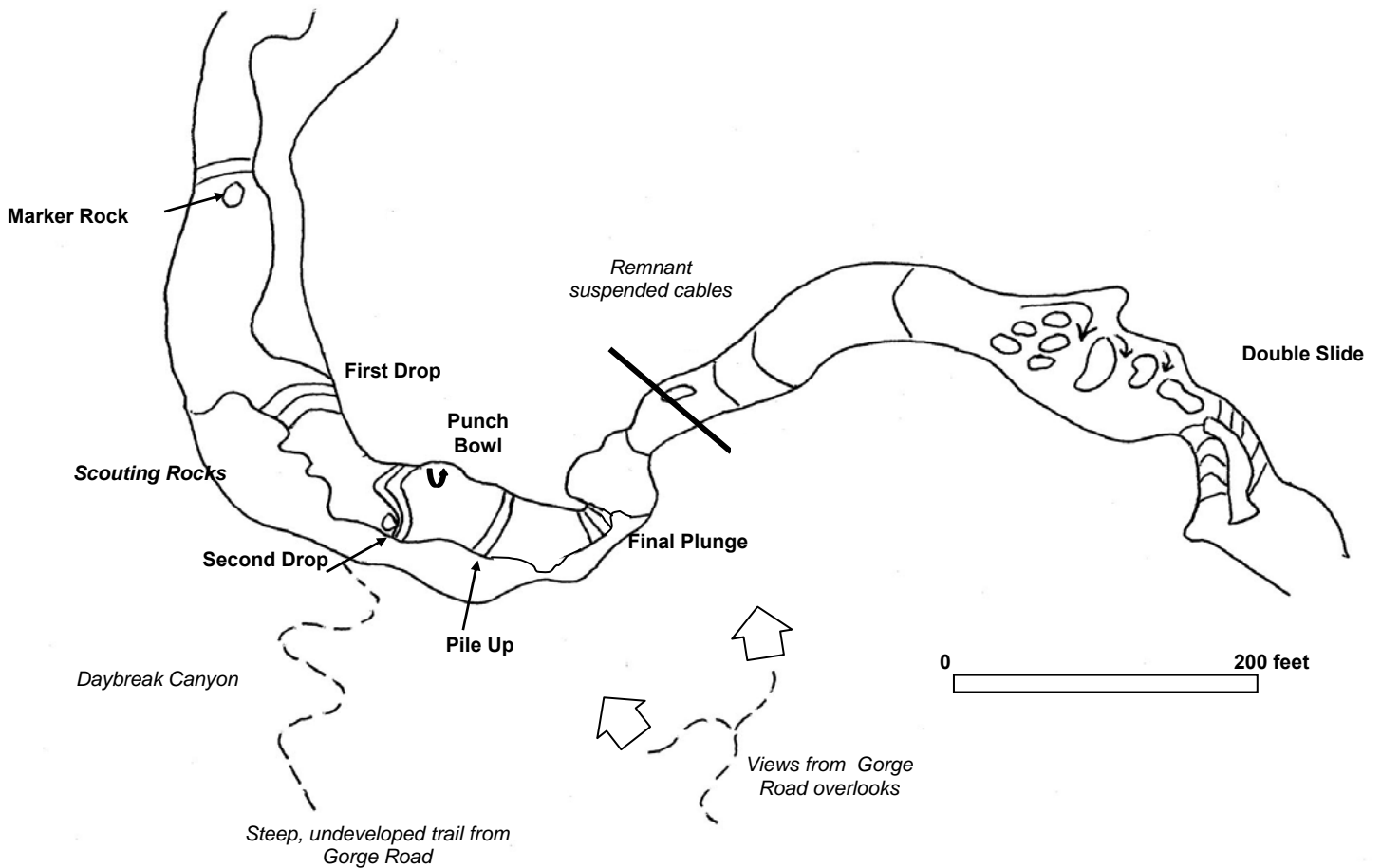


Figure 2: Map Of Key Rapids In The Central Gorge In Section 3 (Chelan Gorge).

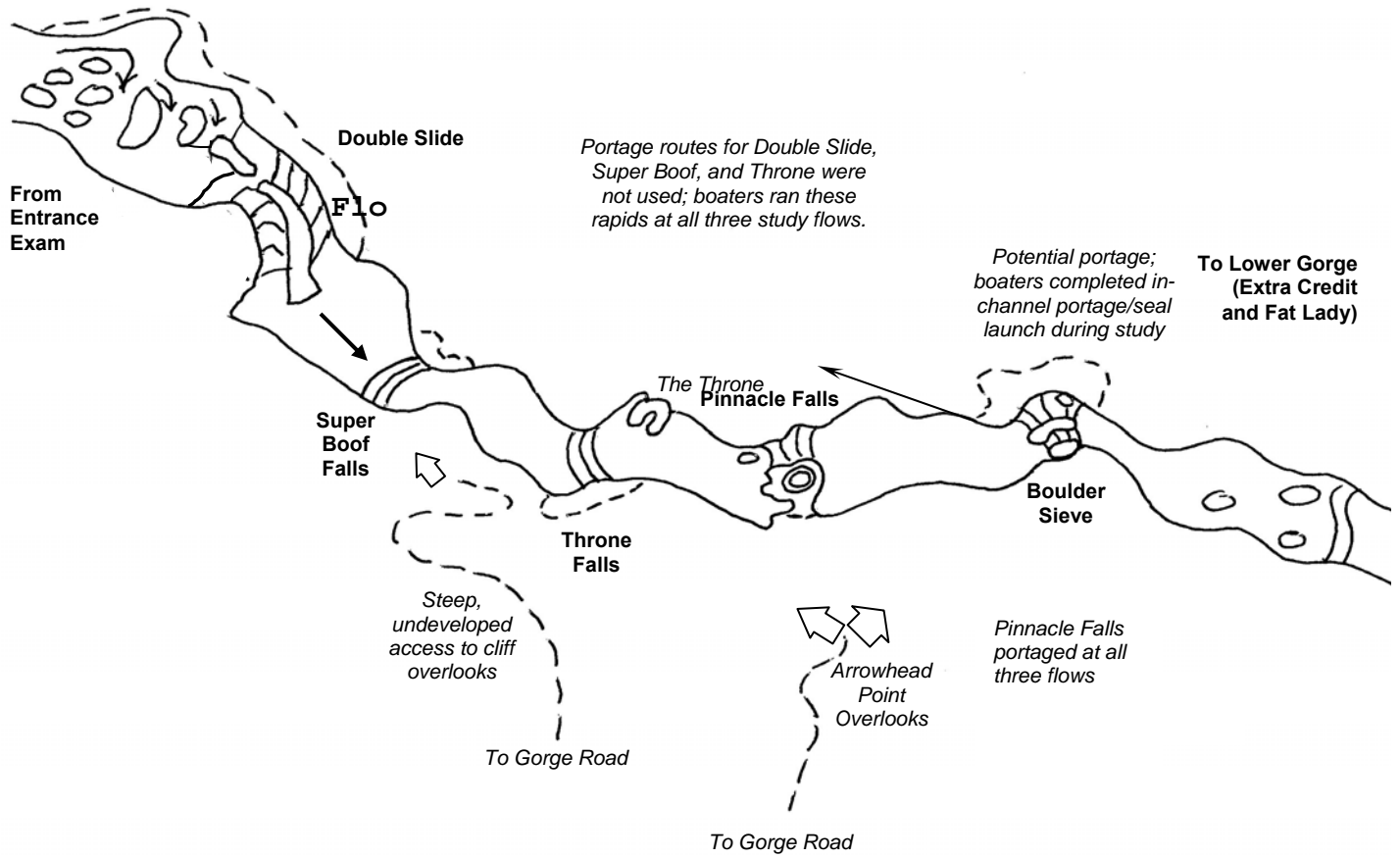


Figure 3: Map Of Key Rapids In The Central Gorge In Section 3 (Chelan Gorge).

SECTION 3: INTERNATIONAL SCALE OF RIVER DIFFICULTY

(Borrowed by permission from the American Whitewater web page)

The following is the American version of a rating system used to compare river difficulty throughout the world. This system is not exact; rivers do not always fit easily into one category, and regional or individual interpretations may cause misunderstandings. It is no substitute for a guidebook or accurate first-hand descriptions of a run.

Paddlers attempting difficult runs in an unfamiliar area should act cautiously until they get a feel for the way the scale is interpreted locally. River difficulty may change each year due to fluctuations in water level, downed trees, recent floods, geological disturbances, or bad weather. Stay alert for unexpected problems!

As river difficulty increases, the danger to swimming paddlers becomes more severe. As rapids become longer and more continuous, the challenge increases. There is a difference between running an occasional Class IV rapid and dealing with an entire river of this category. Allow an extra margin of safety between skills and river ratings when the water is cold or if the river itself is remote and inaccessible.

THE SIX DIFFICULTY CLASSES:

Class I: Easy. Fast moving water with riffles and small waves. There are few obstructions, all obvious and easily missed by people with little training. Risk to swimmers is slight; self-rescue is easy.

Class II: Novice. Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium sized waves can be easily avoided by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed. Rapids that are at the upper end of this difficulty range are designated "Class II+".

Class III: Intermediate. Rapids with moderate, irregular waves which may be difficult to avoid and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy but group assistance may be required to avoid long swims. Rapids that are at the lower or upper end of this difficulty range are designated "Class III-" or "Class III+" respectively.

Class IV: Advanced. Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast, reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require "must" moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group

assistance for rescue is often essential but requires practiced skills. A strong Eskimo roll is highly recommended for kayakers. Rapids that are at the upper end of this difficulty range are designated "Class IV-" or "Class IV+" respectively.

Class V: Expert. Extremely long, obstructed, or very violent rapids which expose paddlers to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex, demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable Eskimo roll (for kayakers), proper equipment, extensive experience, and practiced rescue skills are essential. Because of the large range of difficulty that exists beyond class IV, Class 5 is an open ended, multiple level scale designated by Class 5.0, 5.1, 5.2, etc. Each of these levels is an order of magnitude more difficult than the last. Example: Increasing difficulty from class 5.0 to class 5.1 is a similar order of magnitude as increasing from Class IV to Class V.

Class VI: Extreme and Exploratory. These runs have almost never been attempted and often exemplify the extremes of difficulty, unpredictability, and danger. The consequences of errors are very severe and rescue may be impossible. For teams of experts only, at favorable water levels, after close personal inspection and taking all precautions. After a Class VI rapids has been run several times, its rating may be changed to an appropriate Class 5.x rating.

SECTION 4: WHITEWATER BOATING MONITORING STUDY PLAN

As a requirement of the New License for the Lake Chelan Hydroelectric Project, Chelan PUD will conduct a three-year whitewater boating monitoring study in the Chelan River. The following plan for the whitewater boating monitoring study has been developed by Chelan PUD in consultation with the American Whitewater Affiliation and the Lake Chelan Recreation Forum.

Annual Schedule

During the three-year whitewater boating monitoring study, Chelan PUD will release flows on the second and fourth weekends in July and September. Flows on Saturdays will be between 300 cfs and 375 cfs, and flows on Sundays will be between 400 cfs and 450 cfs. Chelan PUD will begin the ramping up of releases to meet these flows at 11:00 am and will begin ramping-down no sooner than 6:00 pm each day. Chelan PUD will not be obligated to provide whitewater boating flow releases in the Chelan River when the previous day's average Stehekin River inflow is less than 333 cfs, or when the Mid-Columbia Index is greater than \$150/MWh (\$2001) as adjusted pursuant to section 19.1 of the Settlement Agreement.

Reservation System

Water releases are made only if six or more kayakers make a reservation with Chelan PUD either in-person at Chelan PUD offices in Chelan or Wenatchee or via the Chelan PUD website, (IDENTIFY WEBSITE ADDRESS) by 5:00 pm on the Thursday prior to the scheduled release date. In addition, all reserved participants must be physically present at the designated kayak put-in location by 10:00 am on the date of the release. No kayaker less than 18 years of age will be allowed. It is recommended that all participants scout the river ahead of time and watch a 20 minute video of kayaking in the Chelan River Gorge which is available either in the Chelan PUD offices in Wenatchee or Chelan or on the Chelan PUD's website.

Liability Insurance

Liability insurance protecting Chelan PUD's liability must be in place before kayakers can participate. Additionally, each kayaker will be required to sign a liability waiver prior to launching his or her kayak in the Chelan River.

Kayak Criteria

Only non-motorized, hard-shelled kayaks suitable for Class V whitewater will be allowed.

Survey Tool

Each kayaker will be asked to fill out a survey at the end of the run. This survey tool will provide important information that will be compiled and submitted in a report to FERC. The survey will query the whitewater boaters on the suitability of the following: whitewater release dates, daily schedule, whitewater difficulty, spill volumes, access, carrying capacity, reservation system and real time flow information.

Evaluation Meetings

Chelan PUD in cooperation with American Whitewater will conduct an annual meeting on or before May 1 each year to discuss the annual whitewater report to be submitted to FERC on or before June 1. Adjustments will be made to the annual schedule, spill volume, reservation and liability requirements based on input from Chelan PUD and American Whitewater and on the evaluation of the surveys collected from participants in the previous year's study.

Reporting to FERC

Chelan PUD will submit annual reports to FERC on or before June 1 for the previous year's whitewater boating in the Chelan River for the three years of the monitoring study.

Chelan PUD will submit a final report by May 1 following the completion of the three-year whitewater boating monitoring study. The final report will include information on the dates and volumes of each release for the three-year study period, annual use patterns, and an analysis of user preferences based on survey data. The report will also include recommendations for providing whitewater releases, if any, for the remainder of the license term. These recommendations will include an annual schedule of releases including volume and timing, reservation system and minimum number of boaters required to trigger a release, and mechanism for liability protection.

The final report will document consultation with American Whitewater and copies of comments and recommendations on the final report. Chelan PUD will allow a minimum of 30 days for the American Whitewater Affiliation to comment and to make recommendations prior to filing the final report with FERC for approval. If Chelan PUD does not adopt a recommendation, the filing will include Chelan PUD's reasons for not doing so, based on any relevant project-specific information.

ADDENDUM A: APPLICATION

Reservation Requirements

*Whitewater Boating on the Chelan River**

The Chelan River is rated Class V / V+ (expert)

All participants in whitewater boating activities on the Chelan River must comply with the following reservation requirements:

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6. All participants must sign a liability waiver form and bring it with him/her to the put-in area, prior to beginning the run.
7. All participants are asked to fill out a survey within one week following the run. Surveys can be filled in and submitted on line.

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***NOTE:** Water releases for kayaking will be made **only** if six or more kayakers make a reservation by 5:00 pm on the Thursday prior to the scheduled release date. Chelan PUD will not be obligated to provide whitewater boating flow releases in the Chelan River when the previous day's average Stehekin River inflow is less than 333 cfs, or when the Mid-Columbia Index is greater than \$150/MWh (2001\$) as adjusted pursuant to section 10.1 of the Settlement Agreement.



Reservation Form

Whitewater Boating on the Chelan River

The Chelan River is rated Class V / V+ (expert)

Date _____

First Name _____

Last Name _____

Age _____

E-mail Address _____

Address _____

City _____

State _____

Zip /Postal Code _____

Country _____

Day Phone _____

Evening Phone _____

I have read and understand all of the reservation requirements outlined with this application form and have met and/or complied with the participant criteria.

Signature _____



Chelan County Fire District 7

232 E. Wapato
P.O. Box 1317
Chelan, Washington 98816
(509) 682-4476
(509) 682-3297 FAX

August 30, 2007

Kris Pomianek
Recreation Resources Administrator
PUD of Chelan County
PO Box 1231
Wenatchee, WA 98807-1231

Re: Emergency Response and Rescue within the Chelan Gorge

To whom it may concern:

In review of the whitewater boating component for the new license to operate Lake Chelan Dam, Chelan County Fire District 7 Board of Commissioners and Fire Chief oppose whitewater rafting and any other type of recreational activity in the Chelan Gorge.

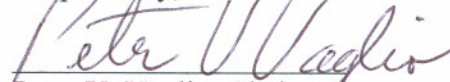
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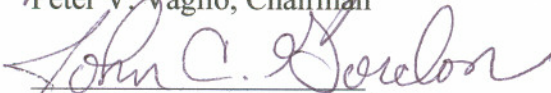
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Respectfully,


Peter V. Vaglio, Chairman


John C. Gordon, Commissioner


Dan D. Wright, Commissioner


Dennis Ashmore, Fire Chief



Chelan County Sheriff's Office
Michael T. Harum, Sheriff

Greg Meinzer
Undersheriff

Ron Hupp
Chief Civil Deputy

Jeff Middleton
Chief Criminal Deputy

Jan Brincat
Executive Assistant

September 25, 2007

Kris Pomianek
Recreation Resources Administrator
Chelan County PUD
PO Box 1231
Wenatchee, WA 98807-1231

Re: Law Enforcement Emergency Response in the Chelan Gorge

Dear Kris,

I have reviewed the whitewater boating information included in the new license to operate Lake Chelan Dam. I am opposed to whitewater rafting, and in fact, any type of recreational activity in the Chelan Gorge.

Chelan County Sheriff's Office personnel are not equipped, nor do they have the necessary training to respond to such a high risk area in attempted rescue or recovery situations. I would not choose to submit my rescue technicians to such unnecessary risk, and it is my opinion no rescue or recovery could safely be accomplished in the Chelan Gorge.

The Chelan County Sheriff's Office will always respond in an emergency situation, however we do not have the capacity or expertise necessary to provide rescue or recovery efforts in the Chelan Gorge. Therefore, I adamantly oppose all recreational activities in this area.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael T. Harum".

Michael T. Harum, Sheriff

MTH/jb

ADDENDUM B: WEB PAGE

www.chelanpud.org/parksandrecreation

Chelan River Whitewater Rafting

Main Page



CHELAN COUNTY

CUSTOMER SERVICES

YOUR PUD

ENVIRONMENTAL STEWARDSHIP

LEARNING CENTER

PARKS AND RECREATION

Parks
 Visitor Center
 Ballfields
 Apple Capital Loop Trail
 Special Events

WORKING AT THE PUD

VEINDORS AND CONTRACTORS

EI ESPAÑOL

SEARCH

Chelan River Whitewater Rafting

PARKS AND RECREATION

Chelan River Whitewater Rafting

The Chelan River, although one of the shortest rivers in the northwest, offers some of the most challenging whitewater boating in the nation. The initial three miles of the Chelan River offer rapids categorized as Class II (novice), however the river then quickly changes to Class V+ (expert) for approximately three-tenths of a mile through the "Gorge" before spilling into the lower reaches of the Chelan River and its confluence with the Columbia River.

The Chelan River is just downstream from the popular recreation destination, Lake Chelan and the water flowing into the Chelan River is regulated by the Lake Chelan Dam, owned and operated by Chelan County PUD under a license from the Federal Energy Regulatory Commission (FERC).

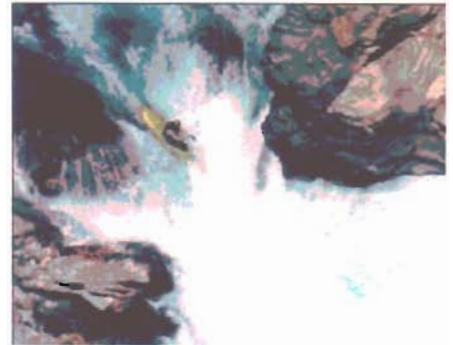
As part of a new license issued by FERC on November 1, 2006, Chelan PUD, in cooperation with [American Whitewater](#), is conducting a three-year whitewater boating monitoring study in the Chelan River beginning in July of 2008 (runs in 2008 are tentative, based on habitat restoration work being done in the lower reaches of the Chelan River).

Each year, during the three year study period, whitewater releases for kayakers will occur on the second and fourth weekends in July and September.

All boaters must be at least 18 years of age and are required to pre-register and complete the reservation process. Only non-motorized hard-shelled kayaks suitable for Class V whitewater will be permitted.

KAYAK RESERVATION INFORMATION

- ▶ [Reservation Form](#)
- ▶ [Skill Levels](#)
- ▶ [Maps](#)
- ▶ [Schedules/Flows](#)



QUICK LINKS

- ▶ [Whitewater Video](#)
- ▶ [Feasibility Study](#)
- ▶ [Photo Gallery](#)

MORE LINKS

- ▶ [Lake Chelan Lake Levels](#)
- ▶ [River Flows And Water Temp](#)

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www.chelanpud.org/parksandrecreation

Chelan River Whitewater Rafting

Reservations

Reservation Requirements

*Whitewater Boating on the Chelan River**

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Reservation Form

Whitewater Boating on the Chelan River

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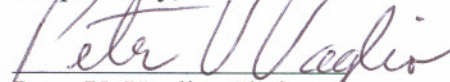
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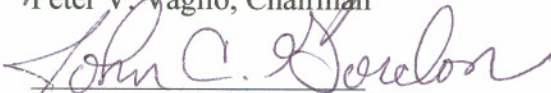
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www.chelanpud.org/parksandrecreation

Chelan River Whitewater Rafting

Skill Levels

INTERNATIONAL SCALE OF RIVER DIFFICULTY

(Borrowed by permission from the American Whitewater web page)

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www.chelanpud.org/parksandrecreation

Chelan River Whitewater Rafting

Maps

DESCRIPTION OF THE CHELAN RIVER

The Chelan River begins below the dam and continues for approximately 4 miles until it joins the tailrace of the powerhouse near the Columbia River (Figure 1). For planning purposes, Chelan PUD has divided the bypass reach into four distinct sections, as shown on the map.

Section 1 is 2.29 miles long, and is characterized by a relatively wide flood plain, low gradient (approximately 55 feet/mile), and substrate comprised of large cobble and boulders.

Section 2 is 0.75 mile long and is a transition zone between the wider floodplain and the Gorge. It is characterized by a narrow channel, canyon walls, moderate gradient (approximately 57 feet/mile), and larger cobble and boulder substrate than Section 1.

Section 3 is “Chelan Gorge,” and is 0.38 mile long. The canyon walls in this section are very steep and narrow, and the gradient of the channel is steep (approximately 480 feet/mile). The channel is characterized by cataracts from 5 to 20 feet high, numerous cascades, bedrock chutes, and large, deep pools. The substrate is very large, with some boulders exceeding 20 feet in diameter.

Section 4 is located below the Gorge area and is 0.49 mile long. It is characterized by a wide flood plain, gravel/cobble/boulder substrate, and low gradient (approximately 22 feet/mile). This section extends from the bottom of the Gorge downstream approximately 2,600 feet to the confluence of the powerhouse tailrace.

The Gorge (Section 3) has been further divided into three areas based on the type of specific rapids:

Entrance Exam (a complex, multi-drop rapid at the start of the Gorge)

Central Gorge (the series of drops downstream)

Lower Gorge (the lower gradient boulder gardens at the end of the Gorge)

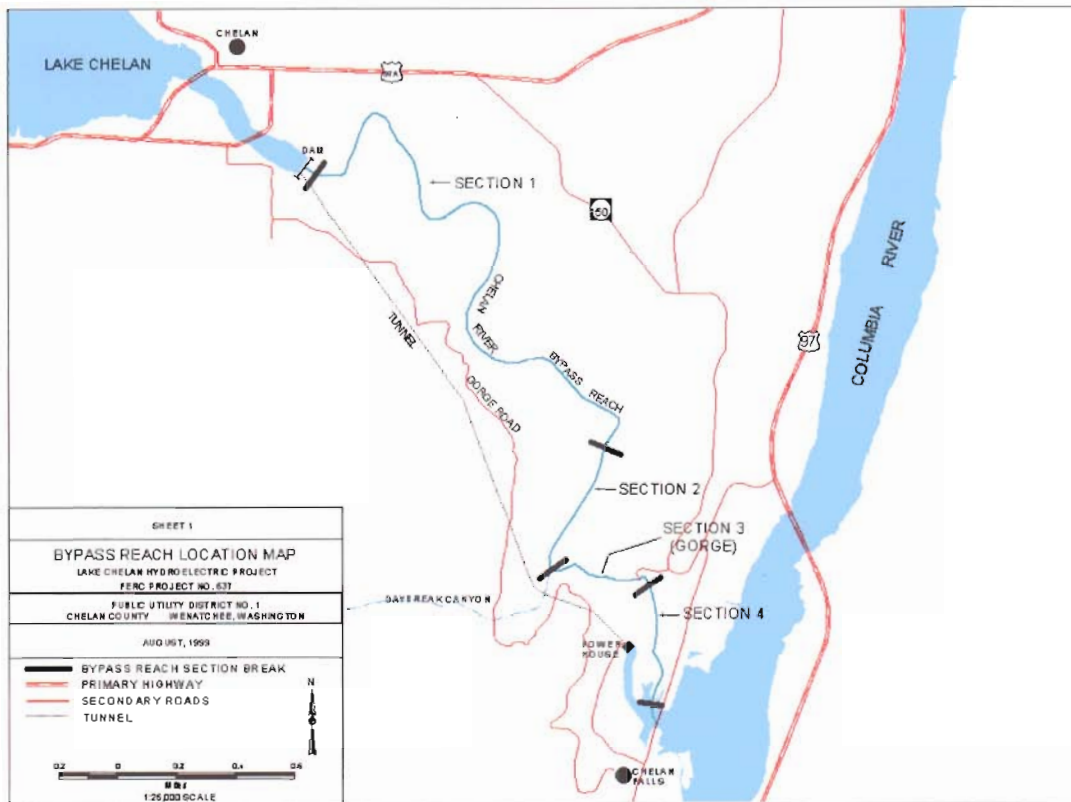


Figure 1: Chelan River And Vicinity, Including Chelan PUD Section Designations

Launch and Take Out Facilities

Put-in. Just below the dam on river-left, an undeveloped road and short trail approach the river. The trail ends on a wide gravel bar that provides a suitable staging area for kayaks and other similar craft. There are parking and restroom facilities at a nearby City park.

Mid-river take-out. For boaters interested in avoiding the Gorge (or starting their trip immediately at the top of the Gorge), it is possible to leave the bypass reach at the mouth of Daybreak Canyon. There is an eddy above the Entrance Exam, and at observed flows there is a relatively flat area on rocks next to the river. However, there is no established trail or access, and the climb from the river to the Gorge Road is steep and potentially hazardous, particularly in the first few hundred feet. Hauling a boat up this route would present a significant challenge.

Take-out. There is a developed boat launch at Powerhouse Park at the confluence of the Chelan and the Columbia. The park also has extensive parking, restrooms, a large picnic shelter, and an extensive lawn for organizing/drying gear.

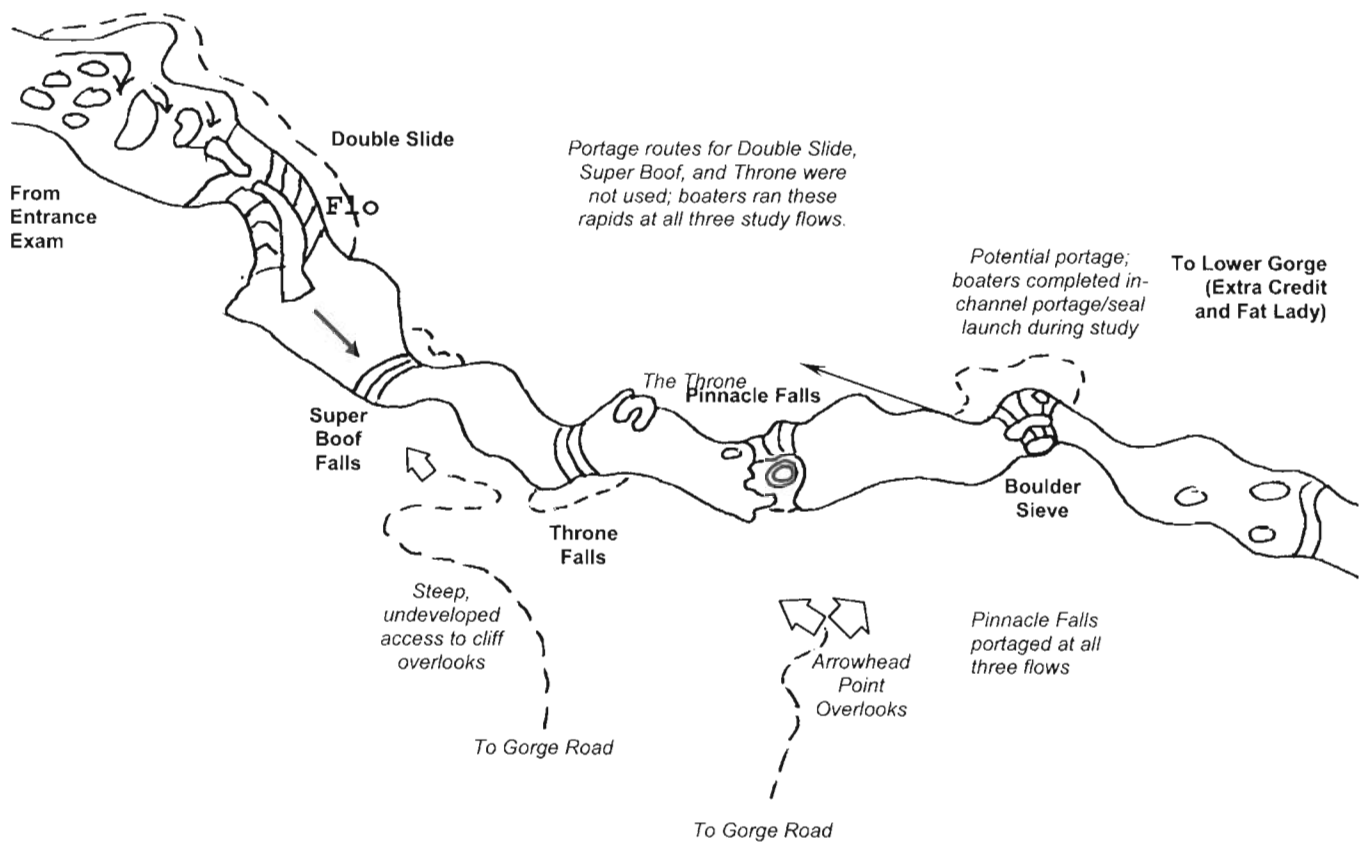


Figure 3: Map Of Key Rapids In The Central Gorge In Section 3 (Chelan Gorge).

There are good scouting options for this rapid on the river-right side. There is a portage route on river-left, well upstream of the entrance into the left hand slide. The portage option on river-right would involve a very difficult seal launch into the pool below.

Super Boof Falls (Class IV/V). The next rapid is a pour-over falls directly downstream of Double Slide; during an on-land assessment it was named “Car Wreck Falls” after an abandoned car in the cliffs (this has since slid into the river and is out of sight). All boaters ran this rapid “boofing” off a rock at the top of the falls on river-left to avoid heavy turbulence at the bottom of the falls. There are scouting options on both sides of the falls. There are portage options on river-left.

Throne Falls (Class V). This is another steep drop with strong turbulence at the bottom; the rapid is named for a distinctive boulder shaped like a throne downstream of the falls. Boaters generally run center-right but with varying bow angles. There is heavy turbulence on both the right and left sides of the falls.

Pinnacle Falls (the pool before the falls). The pool between Throne and Pinnacle Falls can be smaller narrowing the margin of error if boaters fail to have a clean run. Scouting and portaging options are on river-right. There is a good eddy upstream of the falls. Portage options are available from river-right that ends with a short seal launch.

Pinnacle Falls (Class VI). This falls is immediately downstream of the Throne and is identified by a tall pillar of rock on river-right. The falls is steep and high (probably over 20 feet), concentrating the entire flow of the river through a single slot. The bottom of the falls is very turbulent. Boaters often portage this area. The portage is rated “slightly difficult” by all boaters and involves a short carry over the saddle between the pinnacle and right canyon wall, and then a short seal launch into the pool below. There are good scouting options from the river-right eddy above the falls.

Boulder Sieve. The final major rapid in the Central Gorge occurs downstream of Pinnacle Falls, and is identified by several large boulders that act as a sieve in the river; there are at least two distinct chutes through undercut rocks; the total drop is about fifteen feet. Boaters generally do not run this rapid, choosing instead to ground themselves on a rock on river-left, then seal launch down a partially wetted incline to the side of the slots and their heavier turbulence. One boater often gets out of his boat to assist the other kayakers onto the rock and then shove them over the other side. As a result, many boaters do not even get out of their boats for this portage. The ride down the incline on the other side is steep and bumpy and ends in turbulent water that masks rocks that can easily be hit by boaters. Scouting appears best from the left side. A longer portage to avoid the seal launch may be possible on the left side as well, but might require ropes to bypass larger boulders.

Lower Gorge (Class IV/V). Downstream of Boulder Sieve, the river becomes less constricted and has a slightly lower gradient. There are several significant drops and boulders in this reach, but the rapids generally have less powerful hydraulics than those upstream. The rapids above the Old Highway Bridge have been collectively labeled “Extra Credit,” while the series of larger boulders and constricted routes downstream of the bridge have been collectively labeled “Fat

Lady,” a reference to the colloquialism, “the opera isn’t over until the fat lady sings.” There were at least two routes in Fat Lady that were very constricted and cause boaters to hit large rocks as they passed by. One opening was less than the width of a kayak and stopped some boaters’ momentum. At another drop at the very end of the run, all boaters chose to avoid the center route (where most of the water went) in favor of narrow, shallower routes on the sides because of a sieve with potential pinning hazards.

In Extra Credit, kayakers found at least one good play hole for rodeo maneuvers (endos, cartwheels, pirouettes, etc.) There are numerous opportunities for boaters to get out and scout either Extra Credit or Fat Lady from the various boulders, and numerous portage and rescue options are also available if needed.

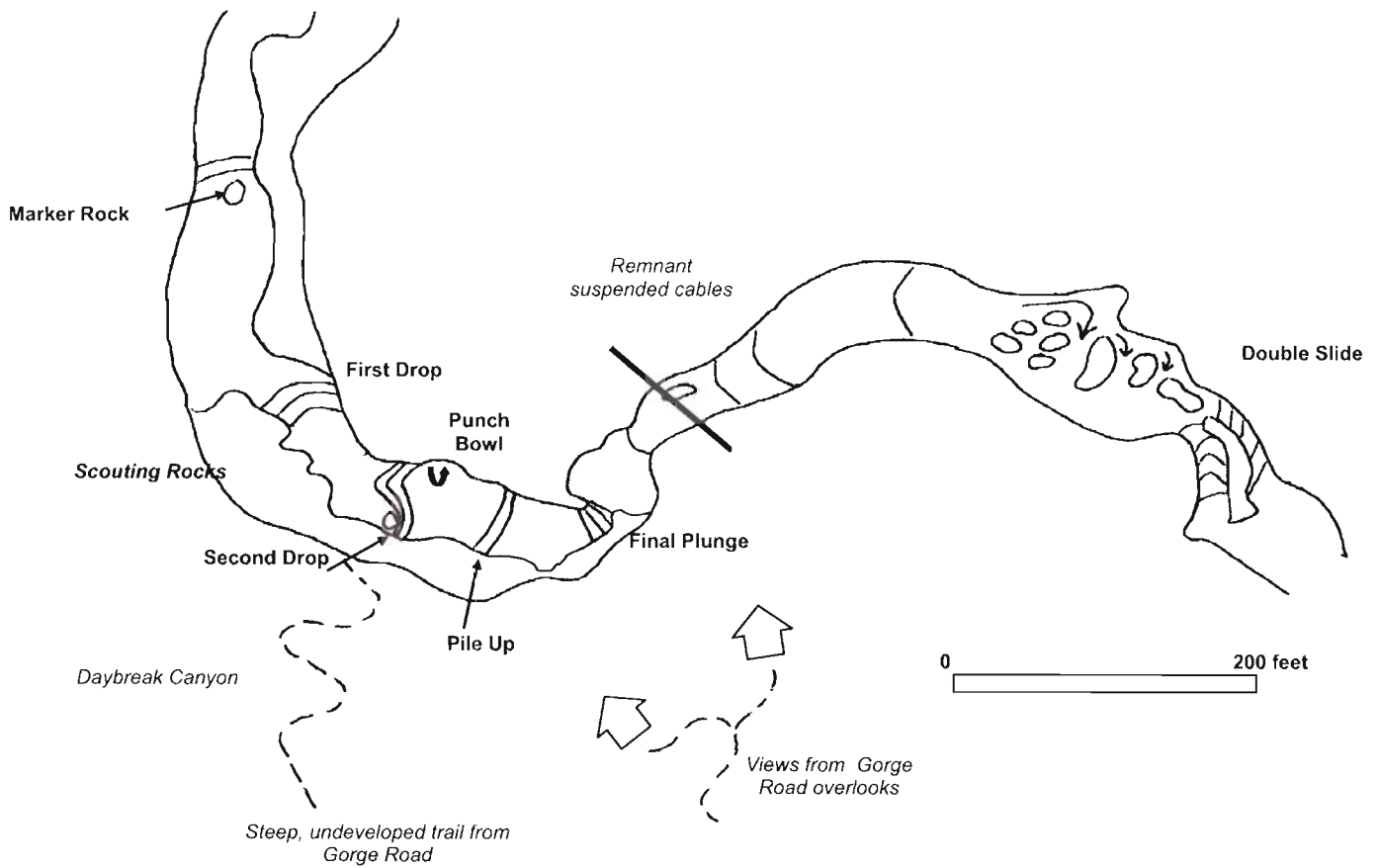


Figure 2: Map Of Key Rapids In The Central Gorge In Section 3 (Chelan Gorge).

Specific Descriptions of Major Rapids in the Chelan River Gorge

Entrance Exam (Class V). This rapid has a series of four drops in short succession at the start of the Gorge. It is identified by a large rock about 100 feet upstream of a sharp left bend at the mouth of Daybreak Canyon. There is a large pool at the top of the reach, allowing boaters to scout and portage the entire rapid, as well as a smaller eddy downstream of the first drop where boaters can also get out of the river. However, once boaters commit themselves to the second drop in the series, they probably have to run the rest as a group.

First Drop. This initial challenge is a short waterfall with a strong hydraulic at the bottom. The hole appears weaker in the center, and was weaker at the lower two flows (273 cfs and 391 cfs). This hole is not the main problem in the rapid, but it requires a clean run because of the drops that lie ahead. Boaters pushed off line here face a more difficult run.

Second Drop/Punch Bowl. The second major challenge in this rapid features a steep, horseshoe shaped falls immediately above a turbulent re-circulating eddy (the “Punch Bowl”) that extends below an undercut rock. The more “clean” boating line at all three flows is just left of a distinct flatter rock on river-right.

Pile Up. The third challenge in the rapid is immediately downstream of the Punch Bowl, and features a river-wide hole. This hydraulic appears weaker in center-right. There is a small eddy on river right against the cliff after Pile-up.

Final Plunge. This last challenge is a sharp drop and hole between two pinching walls; much of the current is directed at the right hand wall, where there is also considerable turbulence. Boaters generally run it after catching the small eddy below Pile-up, moving strongly from right to left-center.

There are scouting and portage options along Entrance Exam from river-right. Boaters who portage can seal launch into the pool below Final Plunge. Boaters can access the area from the Gorge Road (via the steep route down Daybreak Canyon) as well as from the eddy upstream of the rapid. There are options for establishing safety along the rapid, particularly below Pile-up and Final Plunge, the two holes where boaters are more likely to become stuck or have to swim.

Central Gorge. A few hundred feet downstream of Entrance Exam are a series of five major rapids in the Central Gorge. Unlike Entrance Exam, each of these are separated by pools with less turbulent water, and each can be scouted or portaged independently.

Double Slide (Class V). The first major rapid in the Central Gorge is “Double Slide,” which features a boulder field and swift currents leading to side-by-side chutes. The river-left slide is longer, more gradual, and ends in a less turbulent pool. The river-right slide (labeled “Chelan Chute”) is more abrupt and concentrated, and ends in turbulence against the mid-channel dividing rock, which is undercut. A short drop and hole, followed by an exposed rock and the right-to-left current, make access to the river-left slide more difficult.

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Chelan River Whitewater Rafting

Schedules/ Flows

Annual Schedule Whitewater Boating on the Chelan River 2008-2011

During the three-year whitewater boating monitoring study, Chelan PUD will release flows on the second and fourth weekends in July and September. Flows on Saturdays will be between 300 cfs and 375 cfs, and flows on Sundays will be between 400 cfs and 450 cfs. Chelan PUD will begin the ramping up of releases to meet these flows at 11:00 am and will begin ramping-down no sooner than 6:00 pm each day. Chelan PUD will not be obligated to provide whitewater boating flow releases in the Chelan River when the previous day's average Stehekin River inflow is less than 333 cfs, or when the Mid-Columbia Index is greater than \$150/MWh (\$2001) as adjusted pursuant to section 19.1 of the Settlement Agreement.

2008 *	2009	2010	2011	Time
July 12	July 11	July 10	July 9	11:00 am to 6:00 pm each day
July 13	July 12	July 11	July 10	
July 26	July 25	July 24	July 23	
July 27	July 26	July 25	July 24	Flows
September 13	September 12	September 11	September 10	
September 14	September 13	September 12	September 11	Saturdays: 300 to 375 cfs
September 27	September 26	September 25	September 24	Sundays: 400 to 450 cfs
September 28	September 27	September 26	September 25	

* Runs in 2008 are tentative, based on habitat restoration work being done in the lower reaches of the Chelan River.

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Chelan River Whitewater Rafting

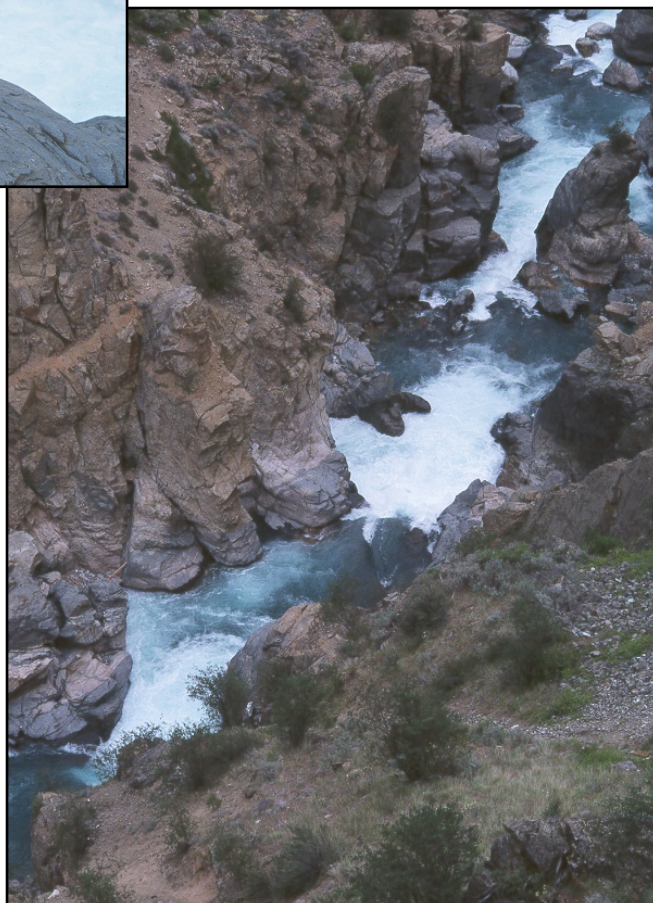
Photo Gallery

Study Photos



John Gangemi examines possible routes through Double Slide and Super Boof Falls during the on-land assessment in June 1999. Whitewater advocates and consultants assessed three flows from land to determine if boaters could safely run or portage all the major rapids, and to estimate a flow range for the on-river component of the study.

View of the Central Gorge from an overlook on the Gorge Road during the on-land assessment. Rapids in view include (in order descending downstream from bottom left of photo): Super Boof Falls, Throne Falls, Pinnacle Falls, and Boulder Sieve.





Paddlers started the on-river assessment by carrying their kayaks to the put-in, an undeveloped area immediately downstream of the dam. The take-out was at a developed area, Chelan County PUD's Powerhouse Park. Both provided good access for kayakers.

Greg Perry of the US Geological Service measured flows provided each day during the on-river component of the study. Several other agencies and organizations also contributed to the success of the study.





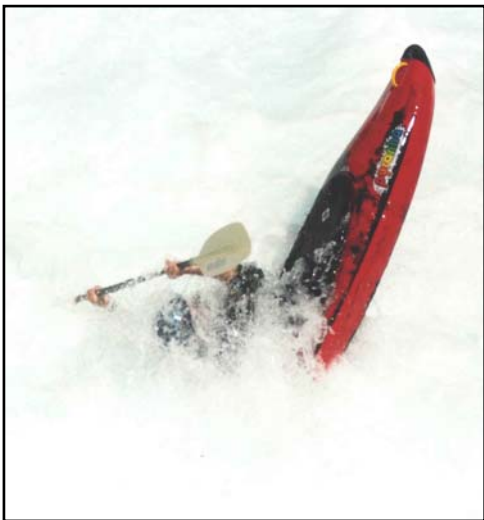
Kayakers paddle through Section 1 on the Upper River at 475 cfs. Higher flows provided more route options and produced fewer “hits,” although even this highest flow left many exposed rocks and did not fill the bottom of the channel.

John Gangemi and Rick Williams discussing alternative routes in the Central Gorge. All major rapids offered scouting, portaging, and safety/rescue options in the flow range studied.

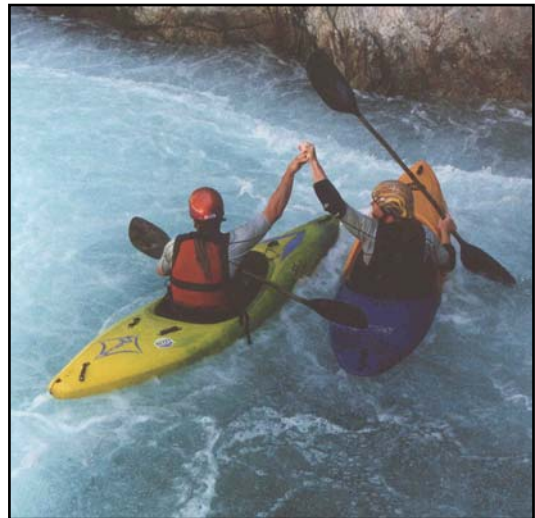




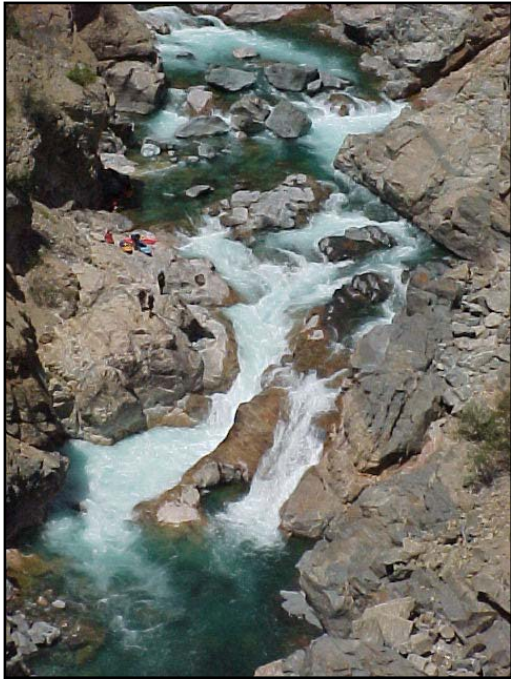
Britt Gentry entering the second drop in Entrance Exam at 391 cfs. Boaters needed to run this waterfall cleanly to set up for other drops immediately downstream of the “Punch Bowl” (an unstable eddy with rock undercuts in the bottom right of this photo). The photo was taken from Daybreak Canyon overlook on Gorge Road.



Tracy Clapp emerges from the third drop in Entrance Exam (named “Pile Up”) at 391 cfs. This hole became more powerful and “stickier” at higher flows.

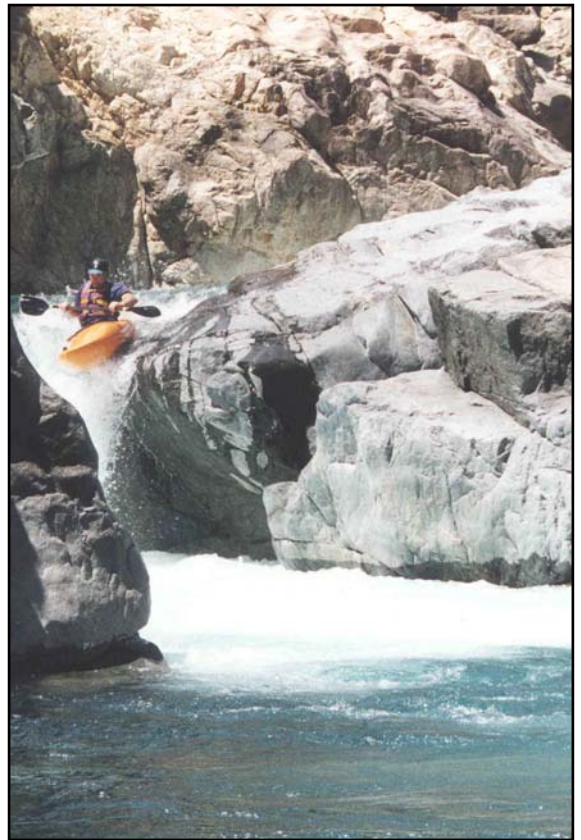


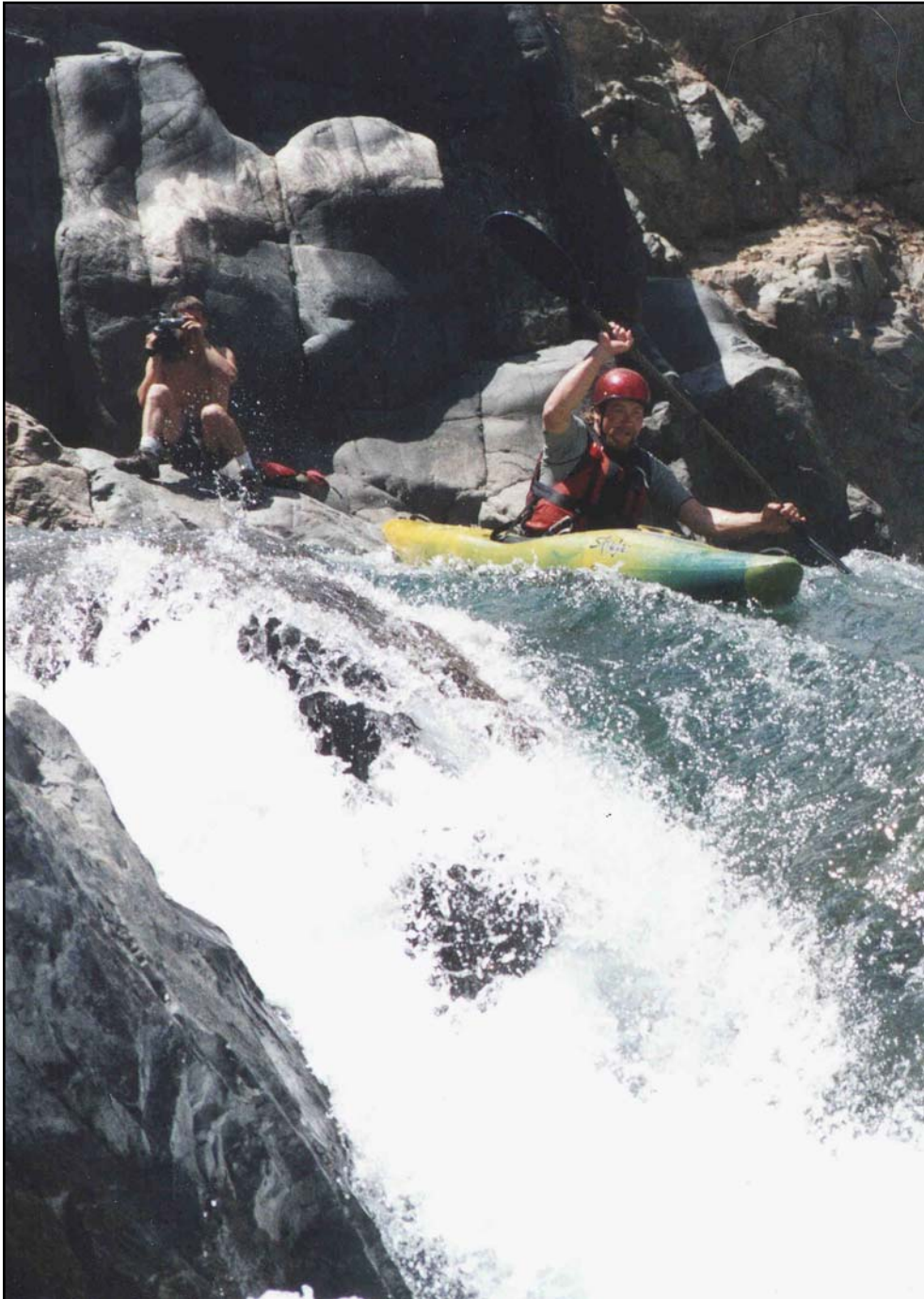
Forrest Hubler and Britt Gentry celebrate runs through Entrance Exam at 475 cfs. Teamwork and camaraderie helped boaters run the river safely and efficiently.



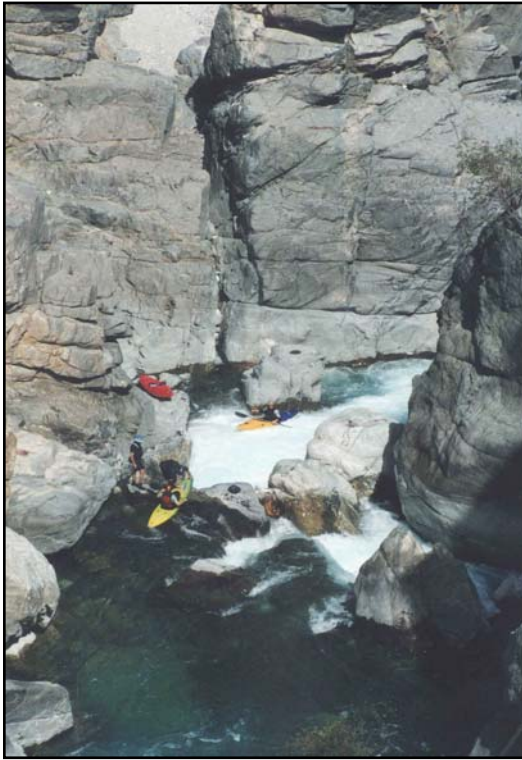
Kayakers scout Double Slide rapid in the Central Gorge at 391 cfs. The right side run (“Chelam Chute”) featured a steeper drop and more powerful hydraulics at all flows, and included an undercut wall on the left that several boaters scraped. The left side provided a less daunting run, but was more difficult to enter at lower flows because of an exposed rock at the top of the chute.

Bo Shelby executes the title move at Super Boof Falls at 391 cfs. Most rapids in the Central Gorge had good recovery pools at the two lower flows; at the highest flow, recovery time shortened and became more critical.





A videographer films Britt Gentry at the top of Throne Falls at 391 cfs. Video crews were stationed at five set locations along the river during the study, but also filmed from additional locations to capture the experience of boating the river. A video that summarizes the study and compares runs at different flows is available from Chelan County PUD.

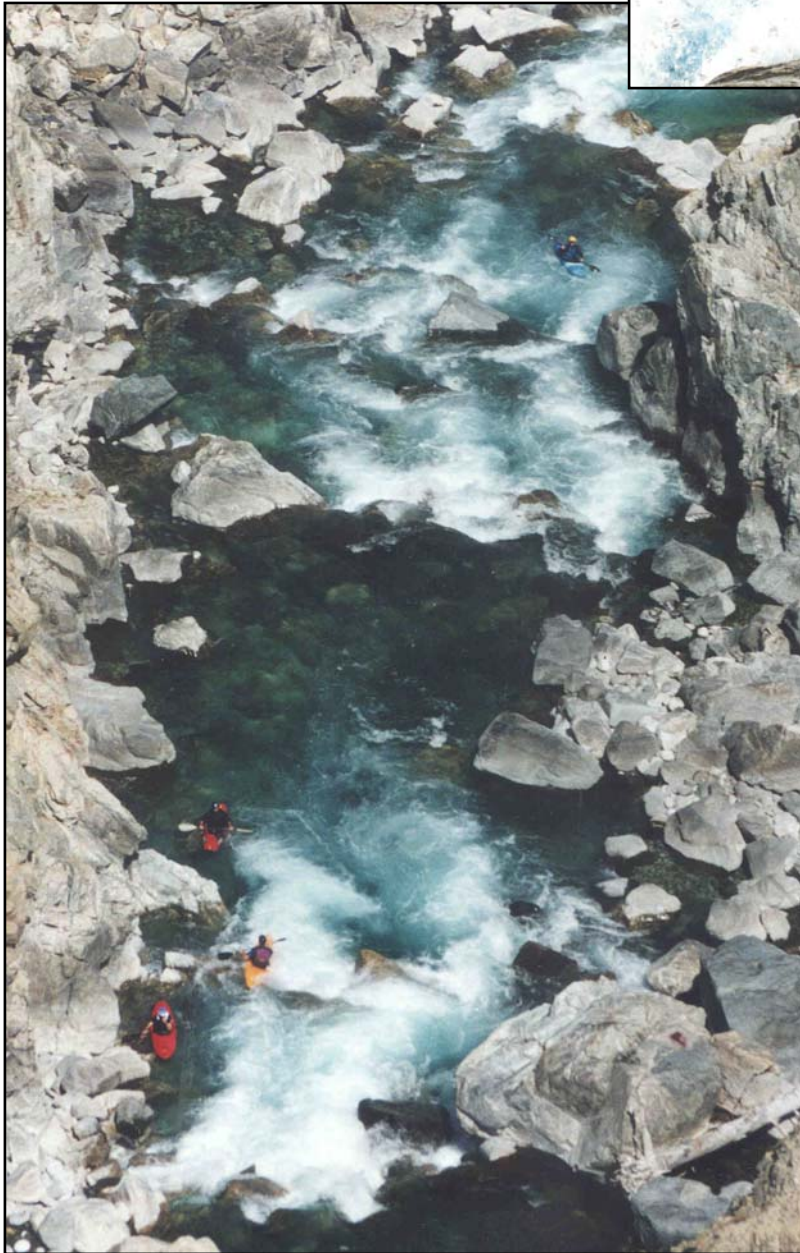


Boaters negotiate Boulder Sieve by “seal launching” down a 15-foot rock slide at 273 cfs. All boaters chose not to run Boulder Sieve or Pinnacle Falls (immediately upstream) at any flow.

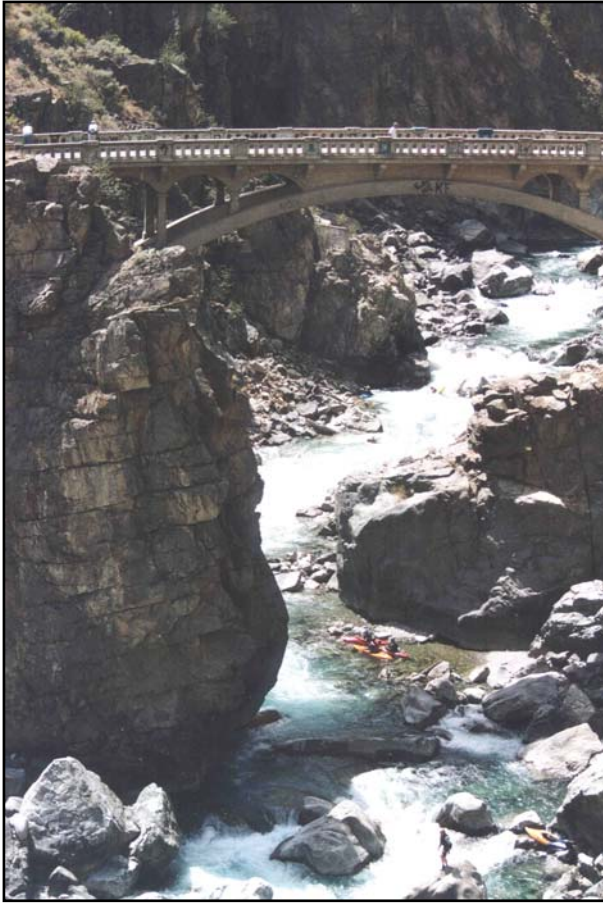


Forrest Hubler powers through a big hydraulic in the Chelan Gorge at 475 cfs. Higher flows required quicker and stronger reactions from paddlers.

Rick Williams in a drop in Extra
Credit rapid at 475 cfs.



Kayakers pick their way
through Extra Credit in the
Lower Gorge at 273 cfs.
Arrowhead Point, just off the
Gorge Road, provides
opportunities to appreciate
the scenic beauty of the
canyon.



Boaters exit Extra Credit in the Lower Gorge upstream of the Old County Bridge at 391 cfs. Higher flows in this section created more powerful hydraulics, but did not substantially widen the narrow chutes between boulders nor create new routes.



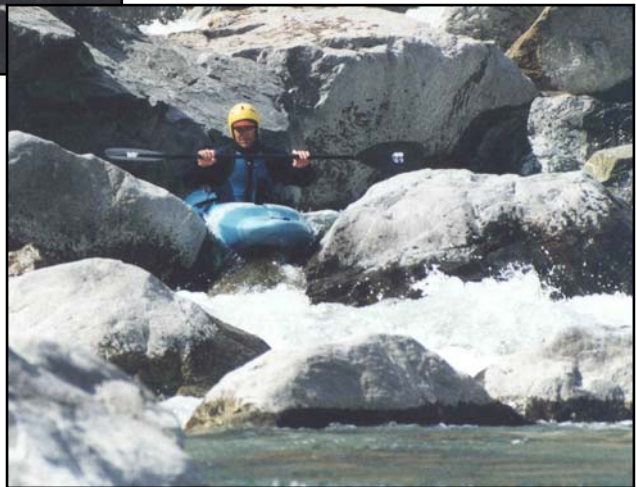
A study observer watches kayakers negotiate the boulder gardens in Extra Credit at 391 cfs. Chelan County PUD and the Chelan County sheriff's office allowed limited access to safe areas for both spectators and media during the study.

Britt Gentry running a narrow chute in Extra Credit at 391 cfs.



Scouting and portaging parts of Fat Lady rapid at 273 cfs. At lower flows, hydraulics were less powerful, although the channels between rocks were narrow and route options were limited.

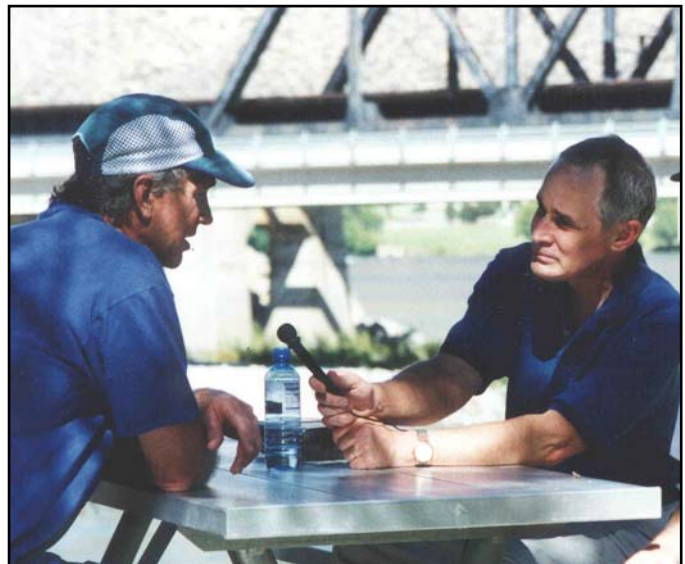
Rick Williams squeezes through a chute in Fat lady rapid at the end of the Lower Gorge at 273 cfs.



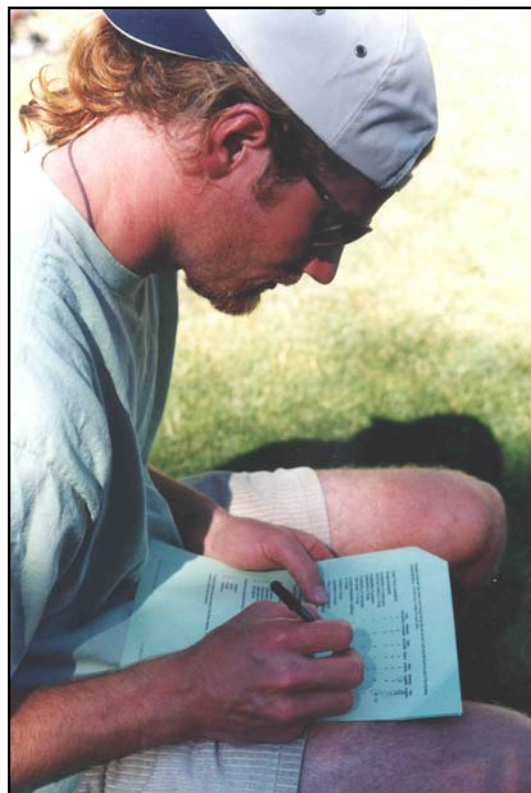


Boaters exit the Lower Gorge at 475 cfs. Whitewater abruptly turns to flatwater at the end of the Gorge, while the Chelan River continues for about a half mile through an alluvial channel before meeting the Columbia River. The powerhouse is in the top right hand corner of the picture; the take-out in Powerhouse Park is in the distance in the top center of the photo.

Steve Hair of KPQ interviews Bo Shelby after the third run. Media and public interest in the study was high because the Gorge had never been boated, kayaking is unfamiliar to many area residents, and flows may affect many resource values. Releases during the high run-off summer months offer opportunities for whitewater flows that do not decrease power generation.



Forrest Hubler filling out a survey. Boaters completed a survey after each run as well as a close-out survey that allowed comparisons between the three flows paddled during the study.



Boaters participated in a focus group after each run, adding qualitative information to the quantitative data provided on surveys.

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Chelan River Whitewater Rafting

Lake Levels



CHELAN COUNTY

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Lake Chelan Lake Levels

Under the terms of its federal license, Chelan County PUD shall make a reasonable effort to comply with the lake level management practices defined in the Lake Level Plan in Settlement Agreement License Article 8.

Future Operation

The elevation of Lake Chelan is expected to remain between 1099.2 and 1099.4 feet this week and through Labor Day Weekend.

Current Lake Level

Friday, August 31, 2007: **1099.23 feet** above sea level

Last 10 Days

For the 10 days ending 8/30/2007, the daily lake elevation (in feet) has been:

Date	Level	Change
Aug 21	1099.36	-0.02
Aug 22	1099.38	0.02
Aug 23	1099.4	0.02
Aug 24	1099.37	-0.03
Aug 25	1099.37	0.00
Aug 26	1099.41	0.04
Aug 27	1099.41	0.00
Aug 28	1099.35	-0.06
Aug 29	1099.34	-0.01
Aug 30	1099.27	-0.07

QUICK LINKS

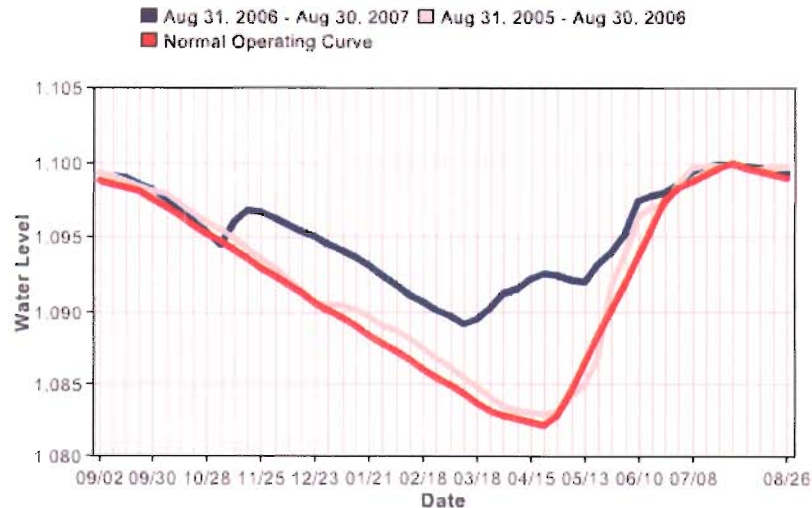
- ▶ [License Article 8](#)
- ▶ [Letter to Stakeholders](#)
- ▶ [Comparison to Old Lake Level Requirements](#)

MORE LINKS

- ▶ [River Flows And Water Temp](#)

Lake Chelan Reservoir Graph

To see data points, first click on the chart and then hover over a spot on the line. You can also view larger versions of [this chart](#) or a [year-to-date chart](#).



Other Information

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Chelan River Whitewater Rafting

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YOUR PUD River Flows And Water Temp

ROCKY REACH DAM

Total Flow	103.3 kcfs
Water Temperature	n/a

ROCK ISLAND DAM

Total Flow	119.8 kcfs
Water Temperature	20.4°C (68°F)

LAKE CHELAN DAM

Lake Level	1099.24 ft
Spill	0 kcfs

kcfs = thousand cubic feet per second
Readings last updated: 31-Aug-07 01:47 PM

MORE LINKS

- ▶ [Columbia River Flow Data](#)
- ▶ [Lake Chelan](#)
- ▶ [Stehekin River at Stehekin](#)
- ▶ [Entiat River near Ardenvoir](#)
- ▶ [Wenatchee River at Plain](#)
- ▶ [Wenatchee River at Peshastin](#)
- ▶ [Wenatchee River at Monitor](#)
- ▶ [Grant PUD boat launch info](#)

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Chelan River Whitewater Rafting

Feasibility Study

BOATING FEASIBILITY ASSESSMENT

Final Document

LAKE CHELAN HYDROELECTRIC PROJECT
FERC Project No. 637

October 13, 2000



Prepared by:
Bo Shelby and Doug Whittaker
Confluence Research and Consulting
Anchorage, Alaska

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

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APPENDIX E: BOATER LIABILITY WAIVER FORM

APPENDIX F: PHOTOS FROM THE ON-RIVER STUDY

Notice!

This report and the accompanying maps consider potential boating, scouting, and portaging options based upon assessments conducted in June 1999 and July 2000. They do not identify or endorse specific boating, scouting, or portaging options for future boaters. All boaters need to make their own decisions about how to scout, run, and/or portage during any on-river boating activities.

SECTION 1: INTRODUCTION

Public Utility District No. 1 of Chelan County (Chelan PUD) owns and operates the Lake Chelan Hydroelectric Project (FERC Project No. 637) on the Chelan River in north central Washington. The project, originally licensed in 1926, consists of a 40-foot high concrete gravity dam, a 2-mile long steel and concrete penstock, and a powerhouse. Chelan PUD is permitted to operate the project according to an existing FERC license issued in 1981 and set to expire in 2004. Chelan PUD intends to seek a new federal license to operate the project and has begun the “relicensing” process. This includes conducting studies to determine if the project can be operated to minimize impacts to, or create benefits for, non-generating resources such as water quality, fisheries, and recreation.

The Chelan River flows approximately four miles from the outlet of Lake Chelan into the Columbia River, providing about three miles of low gradient braided river, one-third-mile of higher gradient water that includes the “Gorge” featuring several significant rapids, and one-half mile of low gradient water that extends to the powerhouse tailrace and the Columbia River (see Map 2-1).

The Chelan River Bypass Reach is dry most of the year except where ground water infiltration enters the river. Spill releases at the project's dam generally occur in June or July as snowmelt from the North Cascade mountains feed into Lake Chelan and the storage capacity of Lake Chelan exceeds the hydraulic capacity of the Project. Depending on the amount of snow-pack and weather conditions, flows in the Chelan River during the spring/summer seasons can range from 2,000 to 15,000 cfs. The Project is managed to not exceed a maximum reservoir (Lake Chelan) elevation of 1,100 feet, and to minimize or avoid extremely high discharges down the river during the reservoir refill period.

While the upstream waters of 50-mile long Lake Chelan provide well-known recreational resources, the bypass reach has received far less attention from recreationists. Access to the bypass reach is difficult, particularly in the Gorge. Although a road runs along the canyon, it only approaches the river in a few places (see Map 2-1).

As part of Chelan PUD's relicensing process, whitewater boaters have expressed interest in paddling opportunities on the bypass reach, particularly in the Gorge. Although mid-summer spill flows are available in the river, these appear too high for boating. Chelan PUD has agreed to work with whitewater boating organizations such as American Whitewater to assess whether lower flow releases could provide boating opportunities on the bypass reach.

Consultants were contracted to help with the assessment, which occurred in two phases in 1999 and 2000. This report summarizes information from both phases, incorporating information from the June 1999 on-land assessment report (Shelby & Whittaker, 2000) and fully reporting on the July 2000 on-river assessment. The report provides a description of the river relative to potential boating opportunities, then describes and evaluates boating feasibility at several different flow levels. The report contains sections on the study area, methods, results and

Boating Feasibility Assessment

discussion, and recommendations for relicensing negotiations. An appendix includes a sample of photos taken during the assessment.

SECTION 2: STUDY AREA

The Chelan River begins below the dam and continues for approximately 4 miles until it joins the tailrace of the powerhouse near the Columbia River (Map 2-1). For planning purposes, Chelan PUD has divided the bypass reach into four distinct sections, as shown on the map.

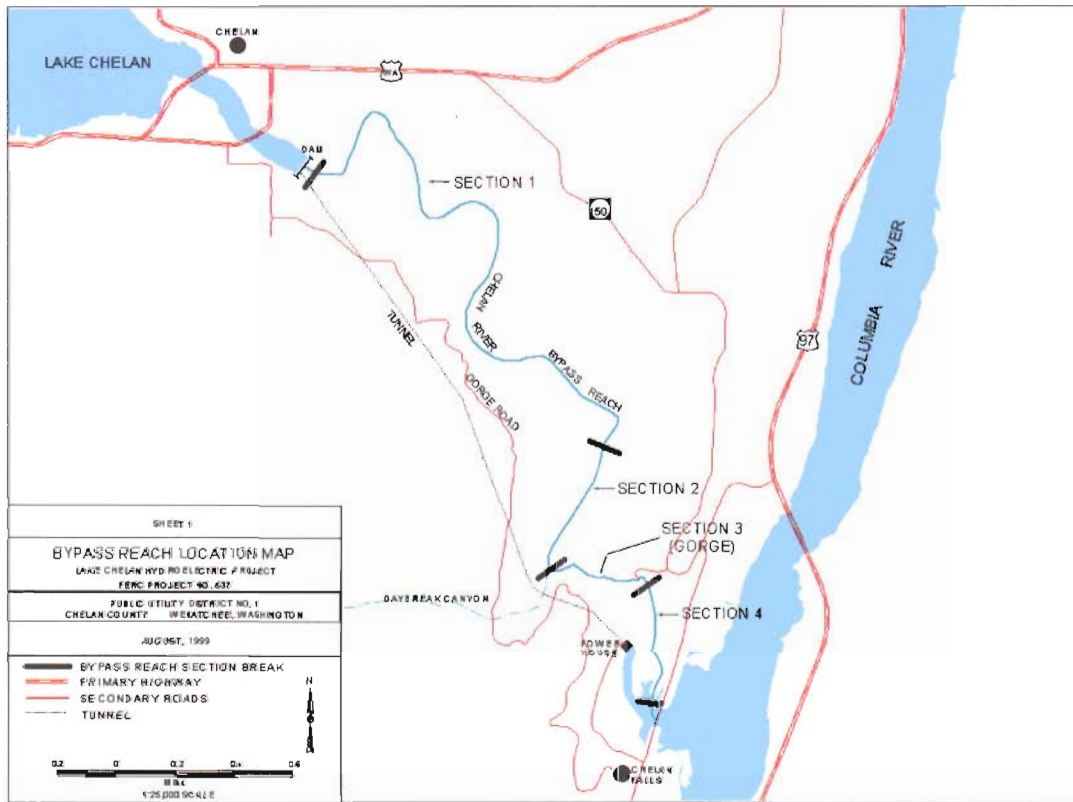
Section 1 is 2.29 miles long, and is characterized by a relatively wide flood plain, low gradient (approximately 55 feet/mile), and substrate comprised of large cobble and boulders.

Section 2 is 0.75 mile long and is a transition zone between the wider floodplain and the Gorge. It is characterized by a narrow channel, canyon walls, moderate gradient (approximately 57 feet/mile), and larger cobble and boulder substrate than Section 1.

Section 3 is “Chelan Gorge,” and is 0.38 mile long. The canyon walls in this section are very steep and narrow, and the gradient of the channel is steep (approximately 480 feet/mile). The channel is characterized by cataracts from 5 to 20 feet high, numerous cascades, bedrock chutes, and large, deep pools. The substrate is very large, with some boulders exceeding 20 feet in diameter.

Section 4 is located below the Gorge area and is 0.49 mile long. It is characterized by a wide flood plain, gravel/cobble/boulder substrate, and low gradient (approximately 22 feet/mile). This section extends from the bottom of the Gorge downstream approximately 2,600 feet to the confluence of the powerhouse tailrace.

For the purposes of this report, the Gorge (Section 3) has been further divided into three areas based on the type of specific rapids. These three reaches have been labeled “Entrance Exam” (a complex, multi-drop rapid at the start of the Gorge; Map 4-1), the “Central Gorge” (the series of drops downstream; Map 4-2), and the “Lower Gorge” (the lower gradient boulder gardens at the end of the Gorge; Map 4-2). Larger scale maps of these areas are presented in the Results and Discussion sections of this report.



Map 2-1: Chelan River and vicinity, including Chelan PUD section designations

SECTION 3: METHODS

The boating assessment for Chelan River was conducted in two stages. The first was an on-land assessment conducted in June 1999; the second was an on-river assessment conducted in July 2000. Both assessments were controlled flow investigations, which are characterized by manipulation of the independent variable, flow. The idea is to release known quantities of water and then describe and evaluate conditions for various kinds of recreation. In this case, the focus was on whitewater boating opportunities using hard shell kayaks, although the study also offered information about other potential recreation opportunities in or along the river. Controlled flow studies are a commonly used method for examining flow-recreation relationships, particularly on short bypass reaches of river (Shelby et al., 1992; Giffen & Parkin, 1993; Whittaker et al., 1993; Shelby et al., 1998).

3.1 On-Land Assessment (June 1999)

The June 1999 assessment was conducted from land, observing flows from viewpoints on the canyon rim and in the Gorge. The general objectives of this phase were to 1) determine if an on-river boating study was feasible, and 2) narrow the range of flows that should be examined by boaters. The on-land phase was particularly focused on assessing safety and management issues associated with conducting the on-river phase.

The assessment was conducted on June 2, 1999. Participants included:

John Gangemi, American Whitewater Association
Doug Whittaker, Confluence Research and Consulting
Bo Shelby, Confluence Research and Consulting
Gregg Carrington, Chelan PUD
Michelle Smith, Chelan PUD

The participants observed the bypassed reach of the river at three different flows (490 cfs, 245 cfs, and 367.5 cfs, in that order). The study began with a request of 500 cfs (an actual release of 490 cfs was provided). From the vantage point of the canyon rim, this flow appeared too high for boating some of the drops in the Gorge, and suggested that higher releases were not necessary to observe from land. This led to a second request for 250 cfs (an actual release of 245 cfs was provided), which appeared too low for some rapids, and led to a final request for about 375 cfs (an actual release of 367.5 cfs was provided). The actual flows provided varied slightly from target requests because spillway gates open in discrete increments and flows could only be estimated at the time of the assessment. Actual flows were calculated post-assessment by Chelan PUD. The time it takes for water levels to stabilize at each flow level (about an hour and a half) required a full day for the assessment.

Gangemi and Shelby provided the expertise regarding kayaking feasibility; both have extensive experience running Class V whitewater.¹ They observed different flows from various vantage

¹ Whitewater difficulty is rated by convention according to the American Whitewater International Scale of River Difficulty (see Appendix A for the full scale). This scale ranges from Class I ("easy") to Class VI ("extreme and

points along the bypass reach, and assessed whether the various rapids were boatable, scoutable, or able to be portaged.

Whittaker and Shelby were responsible for documenting information with notes and 35 mm slides. Carrington and Smith also took photographs and video footage. Taken together, this information was used to develop schematic maps of the Gorge which identify major rapids, and then describe possible runs as well as scouting and portaging options at different flow levels. The maps, with modifications based on the on-river assessment, are provided in this report.

The assessment included brief stops at potential put-in and take-out locations, but focused on observations from vantage points along the bypass reach, particularly in the Gorge. All three flows were observed from the two main overlooks along the Gorge Road, above “Daybreak Canyon” and at “Arrowhead Point” (Map 4-1 and Map 4-2). Participants also climbed down to river-level at the mouth of Daybreak Canyon at the 367.5 cfs flow, and to the area between “Super Boof Falls” and “Throne Falls” in the Central Gorge as flows were in transition from 490 to 245 cfs. They did not observe the 490 cfs flow from river-level.

The on-land assessment phase suggested the bypassed reach of the Chelan River offers boating possibilities for highly skilled Class V paddlers,² even though some specific rapids in the Gorge may be unrunnable. It recommended conducting an on-river assessment the following year, and suggested that optimal flows would likely occur between about 300 and 500 cfs. The on-land report also made several recommendations for conducting an on-river study; virtually all were incorporated into the on-river study design described below.

3.2 On-River Assessment (July 2000)

The July 2000 assessment featured a team of six kayakers boating the river at three different flows on consecutive days. The primary objectives of this phase were to 1) determine if boating on the river was feasible, and 2) evaluate different flow levels for different types of opportunities. To meet these objectives, we collected information about how flow levels affected a variety of flow-dependent attributes, including boatability, whitewater challenge, availability of whitewater play areas, safety, and aesthetics. Additional information was also collected about some boating management issues (e.g., facility needs), and the likely importance of Chelan River boating opportunities from a regional and national perspective.

The assessment was conducted July 8-10, 2000. Kayaking participants were invited by American Whitewater. Their names, ages, occupations, and home towns are listed below:

exploratory”). Class V is defined as “Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex, demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable Eskimo roll, proper equipment, extensive experience, and practiced rescue skills are essential.” In the west, Class VI generally refers to unrun rapids (Amaral, 1990). Rapids may have different ratings at different flows.

² Boaters self-rate their abilities in comparison to the classes of rapids they have successfully run.

Name	Age	Occupation	Home town
Rick Williams	47	Aerospace engineer	Seattle, WA
Britton Gentry	33	Environmental engineer	Portland, OR
Forrest Hubler	27		Hood River, OR
Tracy Clapp	33	Paddle manufacturing representative	Index, WA
John Gangemi	39	American Whitewater conservation director	Bigfork, MT
Bo Shelby	52	Professor/research consultant	Corvallis, OR

Based on survey information, these boaters averaged over 18 years of kayaking experience and spend an average of 76 days per year boating whitewater rivers. While all six were self-rated advanced or expert boaters (and all were invited for their ability and experience running Class V whitewater), they also reported diverse interest running technical and “big water” rivers, as well as playboating. Appendix B contains copies of the survey, including frequency distributions or summary statistics for questions about participants’ whitewater preferences.

Several Chelan PUD and other agency staff also participated in the study, coordinating logistics, managing flow operations, providing safety and rescue support if needed, and closing the gorge road to casual observers to minimize the risk of safety problems for boaters or observers. The United States Geological Survey (USGS) also conducted discharge measurements to verify flows during the study. A complete list of agencies, participating staff, and their responsibilities during the study is provided in Appendix D.

The participants boated the river at three different flows (273 cfs, 391 cfs, and 475 cfs, on July 8, 9, and 10 respectively). The initial flow was based on results from the on-land phase and was designed to identify a low boatable flow (as well as ensure the greatest margin of error for scouting and portaging if needed). The initial request was for 275 cfs, and USGS measurements indicated 273 cfs was released. Requested flows for July 9 were 375 cfs (391 cfs was provided), while 475 cfs was requested and provided on July 10.

Boaters ran all four segments of the river, putting-in just below the dam and taking-out at the confluence of the Chelan and the Columbia at Powerhouse Park. On segments 1, 2, and 4, the boaters made few if any stops for breaks or scouting. In the Gorge (Segment 3), boaters stopped to scout all of the major rapids before deciding to run or portage them. In general, it took about four hours from put-in to take-out at each of the three flows; about 1.5 to 2.0 hours of that time was spent scouting, portaging, providing safety for other boaters, or retrieving equipment after minor mishaps.

Video and still photographers were located along the river during the study. Video stations were established for all three flows at four locations:

- Roadside overlook in Segment 1
- River-level at Entrance Exam (mouth of Daybreak Canyon)
- Near river-level between Super Boof Falls and Throne Falls in the Central Gorge
- Overlook from on top of the Old Highway Bridge facing upstream

In addition, roaming video crews recorded footage from Arrowhead Point overlooking the central Gorge, and at river-level locations below Throne Falls and both upstream and

downstream of the old Highway Bridge. Still photographers also took pictures from many of these locations, although consistent stations for all three days were not formally established as for video. Appendix F contains photos from the study; a video with footage from the study is also available from the Chelan PUD relicensing department.

Safety and liability were key concerns throughout the study. Boaters carried first aid and swiftwater rescue equipment appropriate to the gorge, and additional emergency medical equipment was also available from Chelan PUD and Chelan County, if needed. County and state law enforcement officials were available through the study, and a private security firm was hired by Chelan PUD to prohibit public access along the Gorge road (thus minimizing rockfall risks above boating and scouting areas). Communications between boaters and observers were available via cell phone and line-of-sight radios throughout the study. All boaters signed liability waivers before the study; a copy of the waiver is provided in Appendix F.

Following each day's run, boaters filled out "post-run surveys" that asked about details of the trip and flow evaluations. Survey results are a primary source of information for the study; a copy of the post-run survey is given in Appendix B. At the end of the third and final run, boaters also completed a "close-out survey" with questions asking boaters to re-assess the flows they saw and to evaluate several other flows. This survey is also provided in Appendix B.

Following survey sessions, boaters also participated in short focus group meetings to review that day's run and flow evaluations. The goal here was to add qualitative depth to the quantitative information covered through the surveys. Discussion focused on advantages and disadvantages of each flow, and estimates of how the river would work at higher and lower levels. Brief notes from the focus group meetings are provided in Appendix C.

Analysis for this report focused on survey results, focus group notes, and a review of video footage and still photography. In general, information was designed to support development of "flow evaluation curves" for relevant boating opportunities. Flow evaluation curves describe the relationship between flow levels and boating quality for different types of opportunities, and are considered a primary output from flow-recreation studies (Shelby et al., 1992; Whittaker et al., 1993). More information about these curves is provided in the following section.

SECTION 4: RESULTS AND DISCUSSION

Note: These results and the accompanying maps consider potential boating, scouting, and portaging options based upon on-land and on-river assessments conducted in 1999 and 2000. We do not intend to identify or endorse specific boating, scouting, or portaging options for future boaters. All boaters need to make their own decisions about how to scout, run, and/or portage during any future on-river boating activities.

Results begin with a general description of boating reaches and launch facilities, then focus on general boating conditions and a description of major rapids during the three on-river flows. We then present survey data evaluating the different flows. This section concludes with information helpful in determining the river's regional and national importance, as well as potential demand.

Two larger scale schematic maps have been developed to show locations of major rapids in the Gorge, most of which are in the first two-thirds of Segment 3. Map 4-1 focuses on the series of drops at the entrance to the Gorge, labeled collectively as "Entrance Exam." Map 4-2 focuses on the "Central Gorge," which has the rest of the larger rapids, including "Double Slide," "Super Boof Falls," "Throne Falls," "Pinnacle Falls," and "Boulder Sieve." Names are provided for these features in the hopes that they are descriptive and useful; however, these names may not match previous names that are unknown to the researchers.

4.1 General Description of Segments

The bypass reach has four segments with different boating characteristics, but these do not precisely correspond with the Chelan PUD sections (Map 2-1).

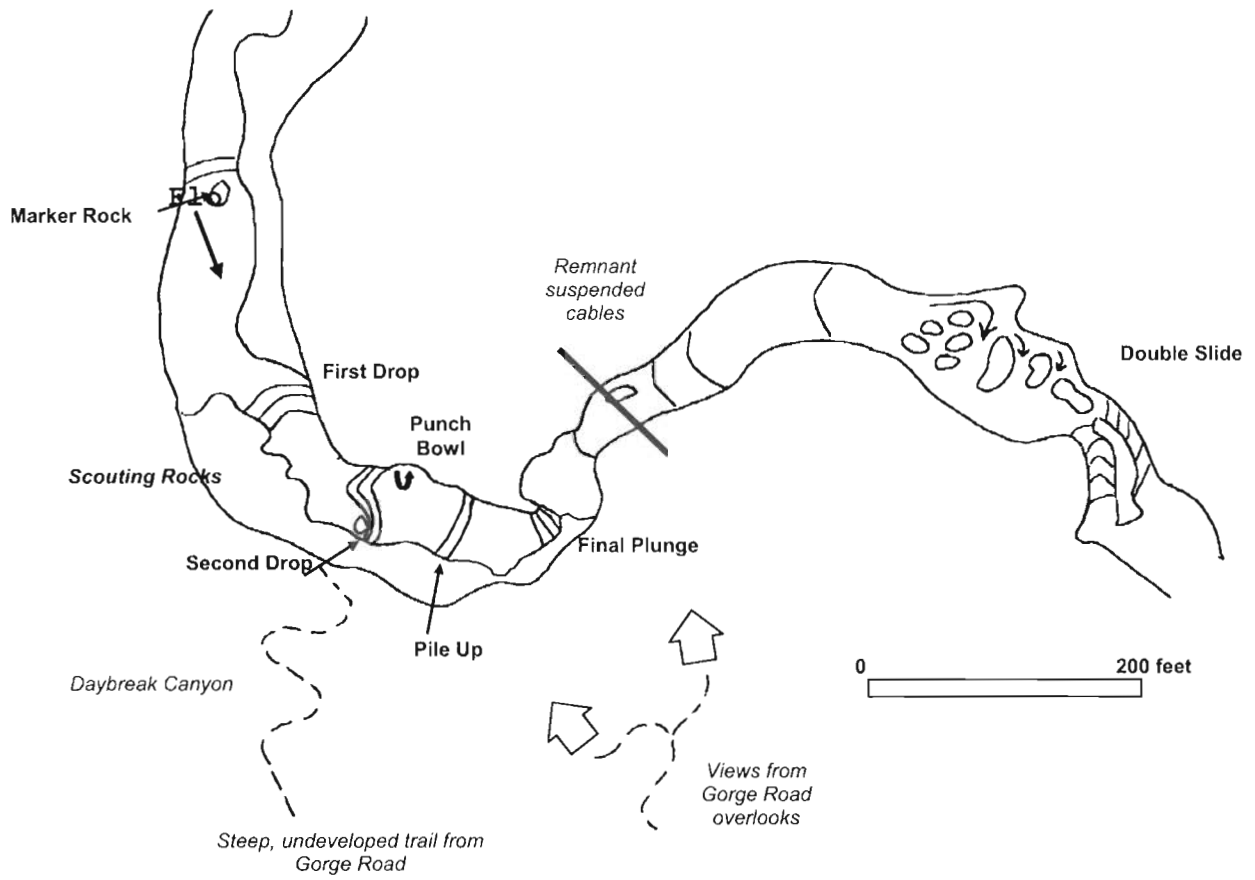
The first three miles (Sections 1 and 2) feature a swift braided low gradient river with occasional islands and riffle areas. At flows up to 500 cfs, the whitewater difficulty in these sections appears to be generally Class II, although there are a few Class III rapids. The river, however, does not appear to provide opportunities for other whitewater craft such as small rafts, catarafts, or inflatable kayaks.

Upon entering the Gorge (Section 3), there are several major rapids in succession, beginning with "Entrance Exam" (Map 4-1) and continuing through the Central Gorge (see Map 4-2).

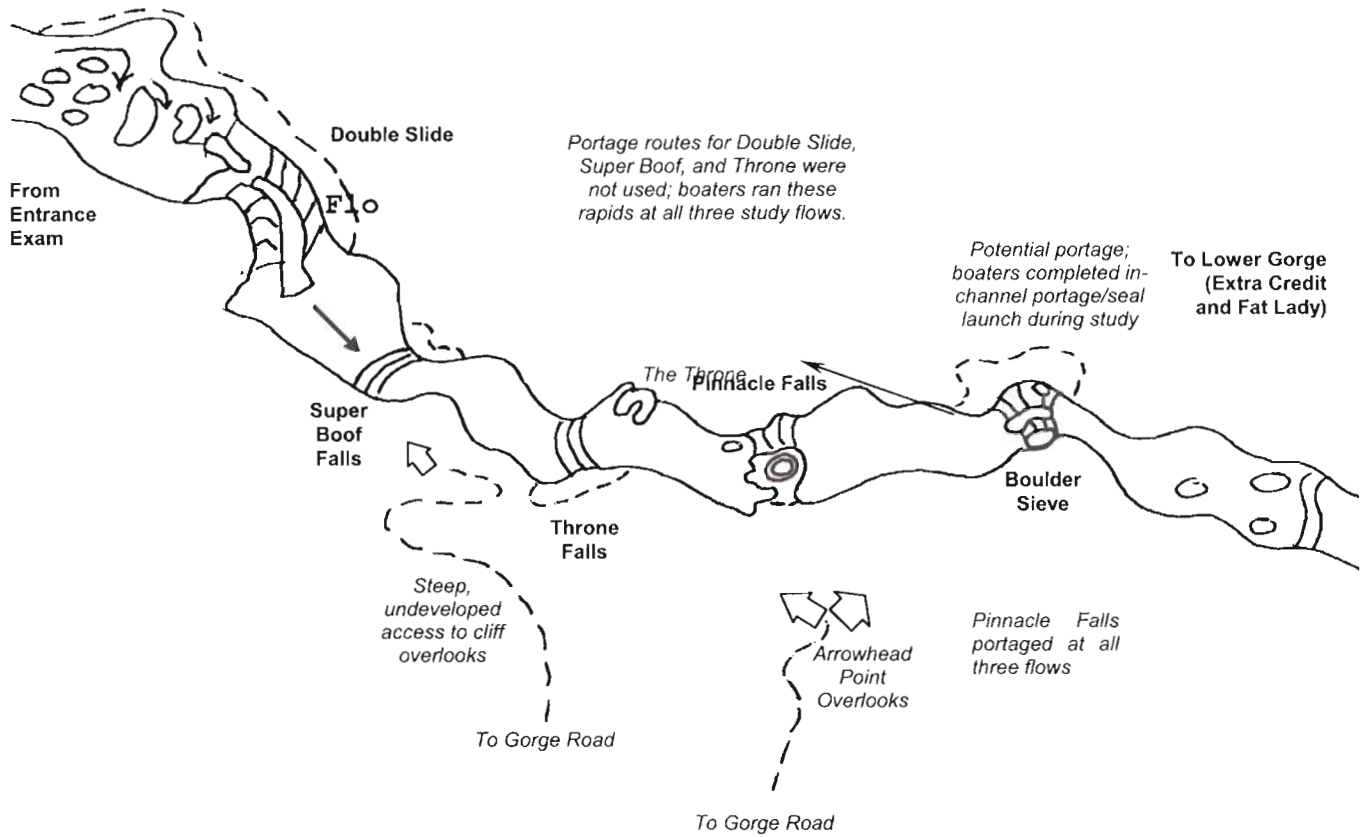
These are generally Class V rapids, although two rapids were not run at any flow during the study (Pinnacle and Boulder Sieve) and should probably be considered Class VI for the time being. In general, rapids in the upper and central Gorge feature strong hydraulics and steep drops (some may approach twenty feet), followed by small pools. Hard shell kayaks and decked canoes appear to be the only craft suitable for this reach.

Below Boulder Sieve, the last major rapid in the Central Gorge (Map 4-2), the channel widens to offer a third type of boating that features a lower gradient, smaller drops, a less constricted channel, and more boulder-dodging. This "Lower Gorge" reach appears to offer Class IV challenge, and is also generally suitable for hard-shelled kayaks.

As the river leaves the Gorge and enters Section 4 (Map 2-1), the river offers essentially Class I boating through a braided channel into the outflow channel of the powerhouse as it joins the Columbia. This section would be suitable for a variety of craft, but is relatively short and unlikely to be boated on its own. Powerboats and personal watercraft from the Columbia occasionally use the lower end of this reach, as do swimmers from Chelan Falls and Powerhouse parks.



Map 4-1: Key drops and other features in Entrance Exam in Section 3 (Chelan Gorge).



Map 4-2: Map of key rapids in the Central Gorge in Section 3 (Chelan Gorge).

4.2 Potential Launch Facilities

Put-in. Just below the dam on river-left, an undeveloped road and short trail approach the river. The trail ends on a wide gravel bar that provides a suitable staging area for kayaks and other similar craft. There are parking and restroom facilities at a nearby City park.

Mid-river access. For boaters interested in avoiding the Gorge (or starting their trip immediately at the top of the Gorge), it is possible to leave the bypass reach at the mouth of Daybreak Canyon. There is an eddy above the Entrance Exam, and at observed flows there is a relatively flat area on rocks next to the river. However, there is no established trail or access, and the climb from the river to the Gorge Road is steep and potentially hazardous, particularly in the first few hundred feet. Hauling a boat up this route would present a significant challenge. During the study, Chelan PUD placed fixed ropes through the steeper parts of this route to facilitate access for observers and video crews.

Take-out. There is a developed boat launch at Powerhouse Park at the confluence of the Chelan and the Columbia. The park also has extensive parking, restrooms, a large picnic shelter, and an extensive lawn for organizing/drying gear.

4.3 General Description of Conditions during the On-River Study Flows

273 cfs. This flow provided marginal boatability in Sections 1, 2, and 4, as boaters hit bottom multiple times (one boater counted over 80 “hits” on the Upper River while other boaters reported too many to count). In the Gorge, this flow was considerably less powerful than the two higher ones, but it also had some boatability issues, particularly at Double Slide and the boulder gardens below the Old Highway Bridge. This flow generally had greater definition in the rapids, less forceful hydraulics below drops, and larger and quieter eddies/pools between rapids. Four of the six kayakers ran Entrance Exam at this flow, although one kayaker had to swim from the final hole in that rapid. Kayakers ran all the other rapids except Pinnacle Falls and Boulder Sieve. Scouting and portaging options were available at every rapid.

391 cfs. This flow offered improved boatability in Sections 1, 2, and 4, but boaters still had multiple hits in the Upper River. In the Gorge, this flow improved boatability in Double Slide and the boulder-dodging section in the Lower Gorge, providing more route options without creating too much power in the hydraulics below the larger drops. Three of the six boaters ran Entrance Exam at this flow; all boaters ran the remaining rapids except Pinnacle Falls and Boulder Sieve. Scouting and portaging options were available at every rapid.

475 cfs. This flow offered further boatability improvement in Sections 1, 2, and 4, and the number of reported hits decreased. Some of the rapids in Section 2 also provided Class III/IV challenge as well as numerous whitewater play areas. In the Gorge, hydraulic power in the drops was noticeably stronger at this flow, and the margin for error was smaller. Eddies between drops were also less stable, and pools between rapids were smaller and had more current. This flow also increased the power in the Lower River without significantly increasing the number of alternative routes. Four of the six kayakers ran Entrance Exam; all boaters ran the remaining rapids except Pinnacle Falls and Boulder Sieve. Scouting and portaging options were available at every rapid.

4.4 Specific Descriptions of Major Rapids in the Chelan River Gorge

Entrance Exam (Class V). This rapid has a series of four drops in short succession at the start of the Gorge (Map 4-1). It is identified by a large rock about 100 feet upstream of a sharp left bend at the mouth of Daybreak Canyon. There is a large pool at the top of the reach, allowing boaters to scout and portage the entire rapid, as well as a smaller eddy downstream of the first drop where boaters can also get out of the river. However, once boaters commit themselves to the second drop in the series, they probably have to run the rest as a group.

First Drop. This initial challenge is a short waterfall with a strong hydraulic at the bottom. The hole appears weaker in the center, and was weaker at the lower two flows (273 cfs and 391 cfs). This hole is not the main problem in the rapid, but it requires a clean run because of the drops that lie ahead. Boaters pushed off line here face a more difficult run. At the 475 cfs flow, some boaters were momentarily stopped or pushed off line.

Second Drop/Punch Bowl. The second major challenge in this rapid features a steep, horseshoe-shaped falls immediately above a turbulent re-circulating eddy (the “Punch Bowl”) that extends below an undercut rock. The more “clean” boating line at all three flows was just left of a distinct flatter rock on river-right; this rock was partially exposed at 391 cfs and nearly dry at 273 cfs. No boater had significant difficulty in this drop, but cleaner runs brought boaters to the surface further downstream and in better position to run the remainder of the rapid.

Pile Up. The third challenge in the rapid is immediately downstream of the Punch Bowl, and features a river-wide hole at all three flows. This hydraulic appeared weaker in center-right, particularly at the lower two flows, which presented few problems. At the 475 cfs level, however, this hole became more “sticky,” and required extended effort by some boaters to clear it. At the lower two flows, there is a small eddy on river right against the cliff after Pile-up that all boaters were able to catch; at the higher flow, one boater missed this eddy (which was smaller and more unstable), leading to a less clean run.

Final Plunge. This last challenge is a sharp drop and hole between two pinching walls; much of the current is directed at the right hand wall, where there is also considerable turbulence. It was more difficult (“stickier”) at the lowest and highest flows, but “cleaned up” at the medium flow. Boaters generally ran it after catching the small eddy below Pile-up, moving strongly from right to left-center. A flat rock in the river was partially exposed at the low flow and slowed some boaters’ momentum, requiring extended efforts to get clear of the hole. At the low flow, one boater was stuck in the hole for nearly a minute (rolling up several times) before deciding to swim out. At the highest flow, some boaters also had to work to clear the hole.

There are scouting and portage options along Entrance Exam from river-right. Boaters who portage can seal launch³ into the pool below Final Plunge. Boaters can access the area from the Gorge Road (via the steep route down Daybreak Canyon) as well as from the eddy upstream of the rapid. There are options for establishing safety along the rapid, particularly below Pile-up and Final Plunge, the two holes where boaters are more likely to become stuck or have to swim.

³ A seal launch is commonly used maneuver by skilled kayakers; it involves pushing off a rock and plunging into the river.

At the highest flow, however, the rock immediately adjacent to the hole in Final Plunge becomes wet and is less suitable (but still usable) for safety efforts.

Central Gorge. A few hundred feet downstream of Entrance Exam are a series of five major rapids in the Central Gorge (Map 4-2). Unlike Entrance Exam, each of these are separated by pools with less turbulent water, and each can be scouted or portaged independently.

Double Slide (Class V). The first major rapid in the Central Gorge is “Double Slide,” which features a boulder field and swift currents leading to side-by-side chutes. The river-left slide is longer, more gradual, and ends in a less turbulent pool. The river-right slide (labeled “Chelan Chute”) is more abrupt and concentrated, and ends in turbulence against the mid-channel dividing rock, which is undercut.

Both chutes were run at all three flows, but not always in the intended manner. A short drop and hole, followed by an exposed rock and the right-to-left current, made access to the river-left slide more difficult. Several right side runs occurred after boaters were unable to gain access into the left, and required recovery rolls or 180-degree turns just before the drop. Once in the left slide, all boaters found it easy to bump their way down the shallow channel and into the pool below. Right chute runs had a cleaner entrance, but faced considerably more power and turbulence just above and through the slide. Several boaters also made hard contact with the dividing channel wall during their right side runs.

There are good scouting options for this rapid on the river-right side. No boaters portaged this rapid, but there may be a portage route on river-left well upstream of the entrance into the left hand slide. The portage option on river-right would involve a very difficult seal launch into the pool below.

Super Boof Falls (Class IV/V). The next rapid is a pour-over falls directly downstream of Double Slide; during the on-land assessment it was named “Car Wreck Falls” after an abandoned car in the cliffs (this has since slid into the river and is out of sight). All boaters ran this rapid at all three flows, “boofing”⁴ off a rock at the top of the falls on river-left to avoid heavy turbulence at the bottom of the falls. As flows increased, the turbulence also increased, requiring a more precise “boof.” There were scouting options on both sides of the falls. No boaters portaged this rapid, but there appeared to be portage options on river-left.

Throne Falls (Class V). This is another steep drop with strong turbulence at the bottom; the rapid is named for a distinctive boulder shaped like a throne downstream of the falls. All boaters ran this falls at all three flows, generally running center-right but with varying bow angles. There is heavy turbulence on both the right and left sides of the falls, which increases at higher flows. At the lowest flow, there were some mid-falls rocks, which boaters avoided by running further to the right. At the highest flow, some boaters were pushed into the throne, requiring them to exert some effort to cross the relatively strong downstream currents and catch the right eddy above Pinnacle Falls. The pool between Throne and Pinnacle Falls was smaller at the highest flow,

⁴ A maneuver designed to keep the kayak flat upon landing below a drop; a “boof” is often completed by intentionally banking off a rock in or on the edge of the channel.

narrowing the margin of error if boaters fail to have a clean run. Scouting and portaging options are on river-right. There is a good eddy upstream of the falls. No boaters portaged this falls, but there appears to be a portage option from river-right that ends with a short seal launch.

Pinnacle Falls (Class VI). This falls is immediately downstream of the Throne and is identified by a tall pillar of rock on river-right. The falls is steep and high (probably over 20 feet), concentrating the entire flow of the river through a single slot. The bottom of the falls is very turbulent; no boaters chose to run this falls at any flow during the study, although some boaters thought it could and eventually would be run (assuming flows were regularly available). There was less power in the falls at lower flows, but it is premature to suggest which flow would make this more runnable. There are good scouting options from the river-right eddy above the falls. The portage was rated “slightly difficult” by all boaters and involved a short carry over the saddle between the pinnacle and right canyon wall, and then a short seal launch into the pool below.

Boulder Sieve. The final major rapid in the Central Gorge occurs downstream of Pinnacle Falls, and is identified by several large boulders that act as a sieve in the river; there are at least two distinct chutes through undercut rocks; the total drop is about fifteen feet. Boaters did not run this rapid at any flow, choosing instead to ground themselves on a rock on river-left, then seal launch down a partially wetted incline to the side of the slots and their heavier turbulence. On all three days, one boater would get out of his boat to assist the other kayakers onto the rock and then shove them over the other side. As a result, many boaters never even got out of their boats while completing this “portage.” The ride down the incline on the other side is steep and bumpy, and ends in turbulent water that masks rocks that were hit by some boaters at all three flows. These “piton” hits occurred to boaters who were assisted over the rock as well as to those who seal launched. Scouting appears best from the left side. A longer portage to avoid the seal launch may be possible on the left side as well, but might require ropes to bypass larger boulders.

Lower Gorge (Class IV/V). Downstream of Boulder Sieve, the river becomes less constricted and has a slightly lower gradient. There are several significant drops and boulders in this reach, but the rapids generally have less powerful hydraulics than those upstream. The rapids above the Old Highway Bridge have been collectively labeled “Extra Credit,” while the series of larger boulders and constricted routes downstream of the bridge have been collectively labeled “Fat Lady,” a reference to the colloquialism, “the opera isn’t over until the fat lady sings.”

At the lowest flow (273 cfs), there were at least two routes in Fat Lady that were very constricted and caused boaters to hit large rocks as they passed by. One opening was less than the width of a kayak and stopped some boaters’ momentum. At another drop at the very end of the run, all boaters chose to avoid the center route (where most of the water went) in favor of narrow, shallower routes on the sides because of a sieve with potential pinning hazards.

At the 391 cfs flow, there were more route options in both Extra Credit and Fat Lady, but some boaters still made hard contact with boulders on their way through various drops and boulder gardens. The additional water provided more depth and width in passages, without significantly increasing power in the river. At the 475 cfs flow, however, while similar routes were available,

power in the river increased noticeably and made some routes more difficult. One boater swam in Fat Lady at this flow, and his boat subsequently became pinned in the main drop at the end of the run (boaters were able to retrieve the boat a short time later).

In Extra Credit, kayakers found at least one good play hole for rodeo maneuvers (endos, cartwheels, pirouettes, etc.) and this was best at the 391 cfs flow. There are numerous opportunities for boaters to get out and scout either Extra Credit or Fat Lady from the various boulders, and numerous portage and rescue options are also available if needed.

4.5 Post-Run Attribute and Overall Evaluations

Boaters were asked to evaluate a variety of flow-dependent attributes at the end of each run on a seven point-scale from “totally unacceptable” to “totally acceptable” (with a “marginal” mid-point). The specific attributes are listed below. Figure 4-1 and Figure 4-2 provide mean scores for selected attributes (those with noticeable differences at the three different flows). The figures have been truncated just below the marginal line to accent subtle differences within the acceptability range. Mean scores for all attributes are provided in Appendix C.

- Upper River boatability
- Gorge boatability
- Availability of challenging technical boating in Gorge
- Availability of powerful hydraulics in Gorge
- Availability of whitewater “play areas” in Gorge
- Overall whitewater challenge in Gorge
- Safety in Gorge
- Aesthetics in Gorge
- Rate of travel in Gorge
- Number of portages in Gorge
- Overall Rating Upper River
- Overall Rating Gorge
- Overall Rating Entire Run

Individual attribute results Figure 4-1 suggest that all three flows provided a variety of acceptable boating conditions on the river, although there were subtle differences in the type of challenge offered in the Gorge and larger differences in Upper River boatability and the availability of playboating.

The largest difference was for Upper River boatability, which was rated below “slightly acceptable” at the 273 cfs flow, but improved somewhat at 391 cfs and was rated “moderately acceptable” at 475 cfs. There were also larger differences for the availability of playboating areas, with the highest ratings at the 475 cfs flow.

Slight differences were suggested among evaluations for safety, overall whitewater challenge in the Gorge, the availability of powerful hydraulics, and the number of portages. In general, the lowest flow was rated lower for the number of portages and lack of powerful hydraulics, while the highest flow was rated slightly lower for safety, overall challenge [too much challenge], and

[too] powerful hydraulics. The middle flow (391 cfs), in contrast, received unanimous 7.0 ratings for all these attributes.

There were no differences for aesthetics (scoring 7.0 or “totally acceptable” scores for all boaters at all flows), and very small differences for rate of travel and technical challenge (the two lowest flows were rated 7.0 by all boaters, while the 475 cfs flow was rated an average of 6.8). These results are not shown in a figure, but suggest that all three flows seen during the study provide high quality opportunities to enjoy the aesthetic qualities of the river and its technical whitewater.

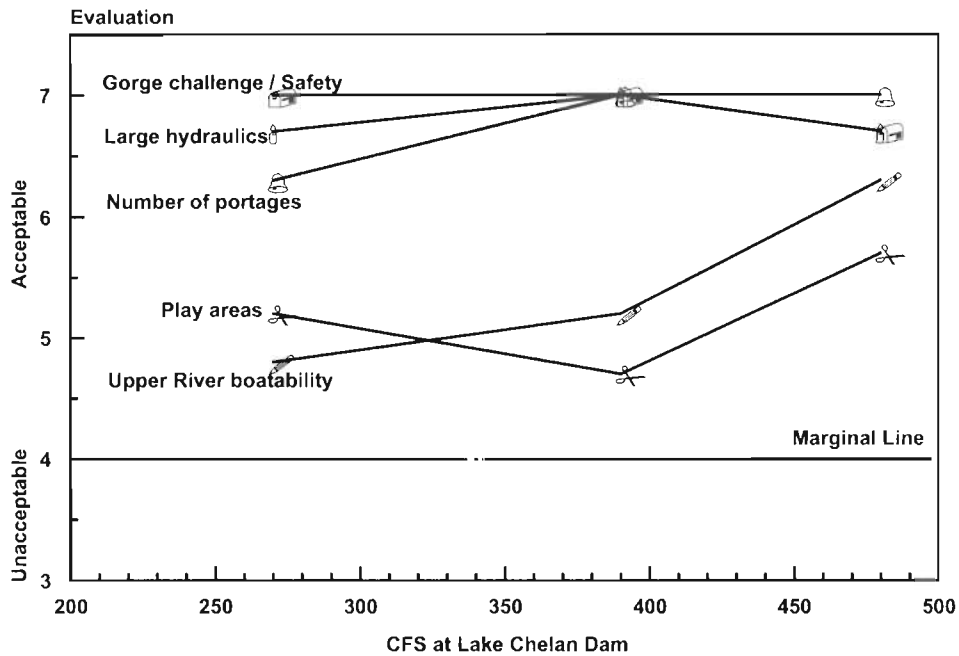


Figure 4-1: Mean acceptability evaluations for several attributes from post-run surveys.

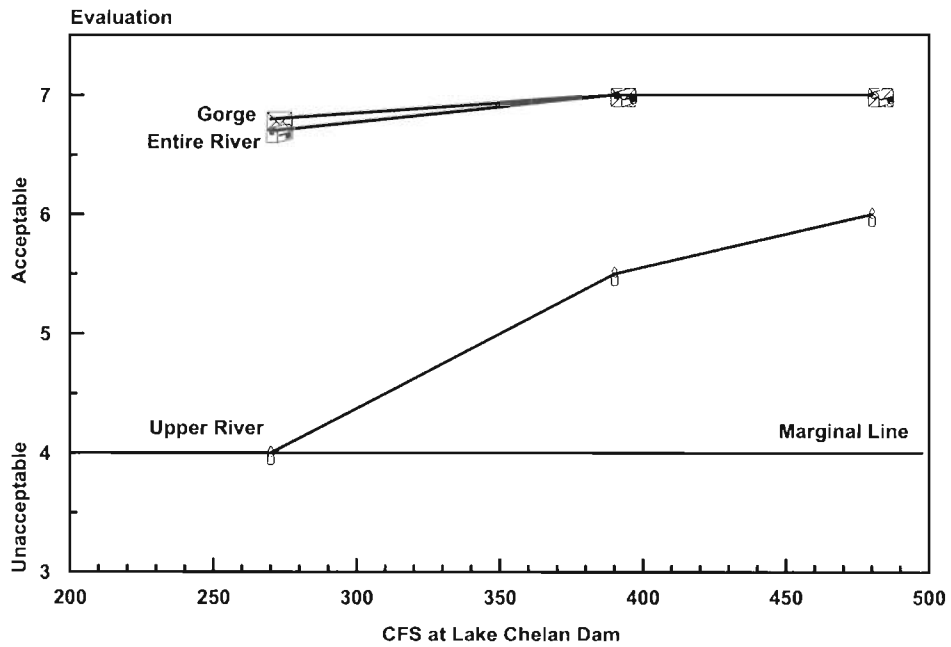


Figure 4-2: Mean overall acceptability evaluations from post-run surveys.

Overall ratings Figure 4-2 generally follow from the individual attribute ratings. On the Upper River, overall ratings followed from boatability ratings, with the lowest flow rated near marginal, while the 391 cfs flow showed some improvement and average ratings were “moderately acceptable” for 475 cfs. During focus group discussion following the 273 cfs flow, several boaters reported that the Upper River was “bony” and involved too many hits for a high quality run, while the two higher flows improved those conditions.

Gorge ratings were relatively high for all three flows, but were slightly lower at the 273 cfs level. Focus group discussion suggests the higher flows had softer, more aerated water below the major drops as well as smoother and cleaner boating lines. Discussion also suggested there were better and more route options in the Lower Gorge. The slightly lower ratings for safety and powerful hydraulics at the highest flow did not detract from overall ratings, which were unanimously high.

Overall ratings for the entire river tended to follow from Gorge ratings rather than Upper River ratings. This is consistent with focus group discussions, which tended to focus on the major drops in the Gorge as key features of a boating trip. Aesthetic ratings, which were uniformly high for all three flows, may also have affected overall ratings from the post-run survey. Boaters unanimously rated aesthetics as totally acceptable at all three flows.

This point is reinforced by other results from the close-out survey, which asked boaters to rate the importance of various trip attributes on a five point scale. Results are given in Figure 4-3, and suggest that safety, aesthetics, and overall challenge are the most important attributes, followed closely by the availability of technical rapids and boatability. Powerful hydraulics, rate of travel, few portages, easy access, and the availability of play areas, in contrast, were relatively less important.

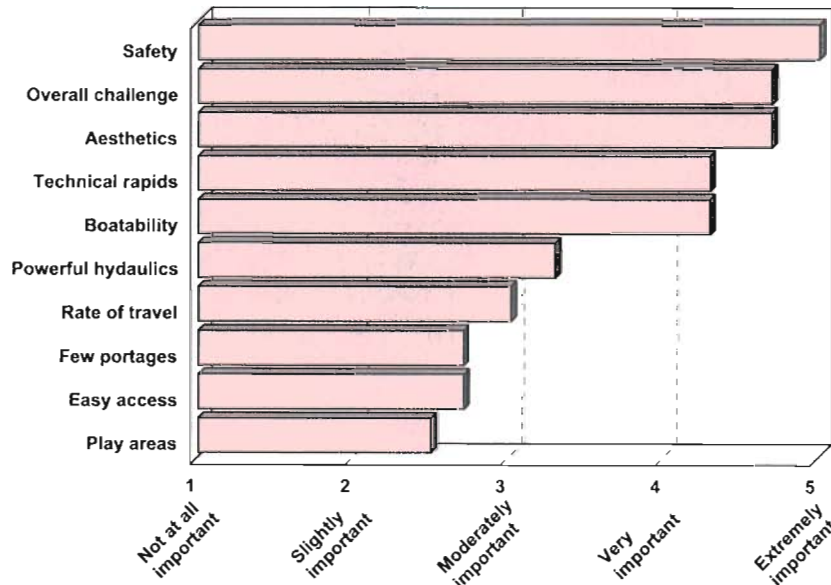


Figure 4-3: Mean importance ratings of various attributes from close-out survey.

4.6 Close-Out Overall Evaluations and Specified Flows

The close-out survey offered boaters opportunities to re-assess their evaluations after seeing the range of flows, as well as specify flows that provide acceptable and optimal quality for different types of trips. Figure 4-4 summarizes mean overall evaluations from the post-run and close-out surveys on the same seven point scale from “totally unacceptable” to “totally acceptable.” Note: On the close-out survey, boaters were asked to rate a larger range of flows based on their experiences at the three study flows. Some boaters were reluctant to make evaluations of flows higher than those they saw, but all boaters were willing to evaluate lower and in-between flows. The close-out survey asked boaters to rate eight flows (100, 200, 273, 330, 391, 475, 550, and 650 cfs).

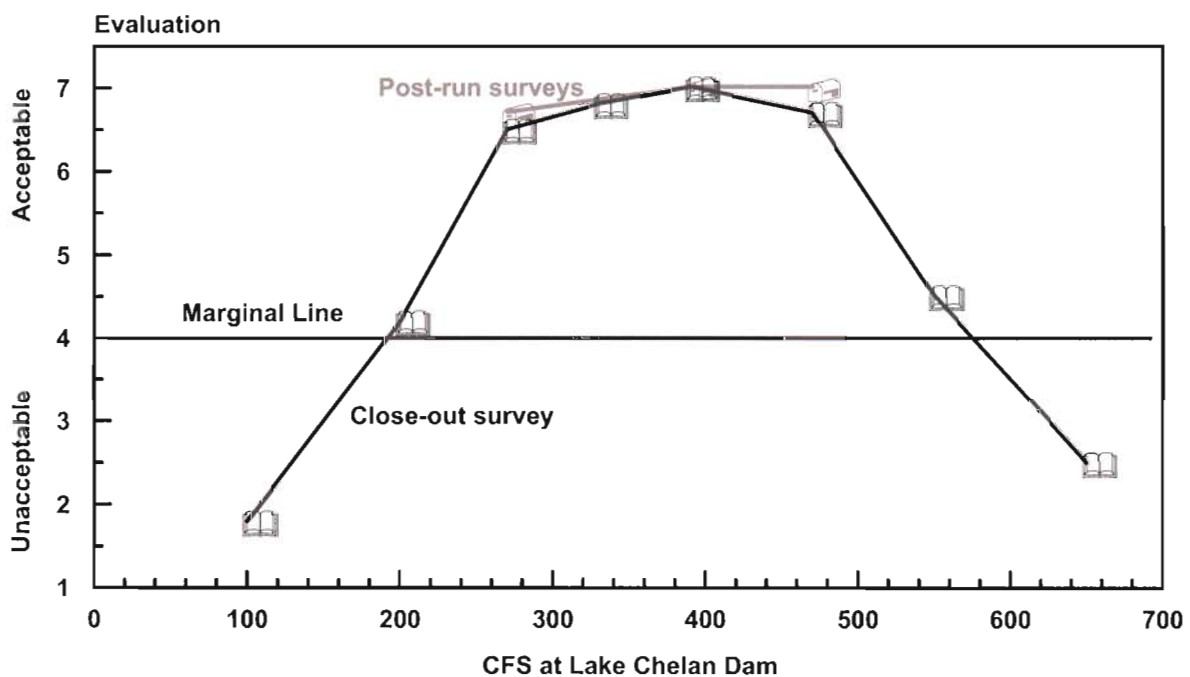


Figure 4-4: Mean post-run and close-out survey evaluations of various flows.

Results suggest that boaters were relatively consistent in their assessments from the post-run to the close-out survey. However, the lowest and highest flows were rated slightly higher in the post-run survey than in the close-out. Close-out evaluations also show that all three of the study flows were rated very acceptable, and can be considered within the optimal range, with the 391 cfs considered best. The close-out survey evaluations, however, also suggest that flows less than about 200 cfs are likely to be unacceptable, while flows starting about 475 cfs also decline in quality, becoming near-marginal about 550 cfs and unacceptable by 650 cfs.

Focus group discussion provides some explanation of these ratings. At the low end, after the 273 cfs run, several boaters noted that they would not want to boat flows much lower. Major concerns were that the Upper River would become increasingly bony, the Gorge drops would

become steeper and perhaps more dangerous, equipment damage would become more likely, and some of the slots in the Lower River might become unrunnable or create greater pinning hazards. Five of the six boaters said they preferred higher flows than 273 cfs, while only one thought this level was “about the optimal flow.”

At the high end, no boaters said they preferred flows higher than 475 cfs and only one thought that level was about optimal. Concerns were that higher flows would decrease the margin for error, increasing the power of hydraulics (particularly in Entrance Exam and at Throne Falls), and perhaps begin linking some of the drops in the Gorge (less room between rapids). While some boaters thought it would be interesting to see higher flows, there was general agreement that higher flows would significantly increase the level of challenge, and most boaters would prefer flows less than 475 cfs.

Results suggest the middle of the range (from about 300 to 450 cfs) is generally optimal, although focus group discussion suggests that conditions change gradually through that range. Boaters noted that the drops in the Gorge tend to “clean-up” with more water, but they also became more pushy and Entrance Exam in particular became more intimidating. After the 391 cfs run, two of the three boaters thought an optimal flow would be lower, one thought 391 cfs was optimal, and three preferred something higher. After the 475 cfs run, five out of six thought optimal flows might be somewhat lower.

Boaters were asked to specify flows that provided different types of opportunities. The specific questions and median responses are given in Table 4-1. In Figure 4-5, we have overlaid “range bars” based on median responses for two different opportunities, as well as minimum navigation flows, with evaluation curves from the post-run and close-out surveys in Figure 4-5. The “range bars” show the lowest flow that provides a quality experience for that opportunity, as well as the optimal range for that opportunity.

Results are generally consistent with the previous run descriptions and both post-run and close-out evaluation data. Results suggest that kayaks could probably navigate the river at flows around 225 to 250 cfs, but that these are clearly marginal levels. As flows approach the lowest study flow (273 cfs), conditions improve enough for an acceptable quality “standard trip,” but the optimal range is probably between about 300 to 400 cfs. Around 400 cfs, standard trips transition into “high challenge trips,” where the margin for error is smaller and the hydraulics are more powerful. These high challenge trips are probably optimal between about 400 and 500 cfs, although two of the six boaters were unsure of the high end of the range and avoided speculating how high it should go. When boaters were asked to specify the highest safe flow, 500 cfs was the median response, but two boaters withheld responses due to uncertainty.

Table 4-1: Median responses to specified flow questions.

Survey question	Median flow in cfs
Think of the river as a waterway used for transportation. What is the lowest flow you need to simply get down the river in your craft?	250
Many people are interested in a “standard” whitewater trip at medium flows. Think of this “standard trip” in your craft... What is the lowest flow that provides a quality experience for this trip?	270
What is the best or optimal range of flows for this type of trip?	295 to 400
Some people are interested in taking trips at higher flows for increased whitewater challenge. Think of this “high challenge trip” in your craft... What is the lowest flow that provides a quality experience for this trip?	391
What is the best or optimal range of flows for this type of trip?	400 to 500
What is the highest safe flow for your craft and skill level?	500
If Chelan PUD released only one flow for boating, what flow would you prefer?	391
If Chelan PUD released two flow levels that offer different types of boating experiences, what two flows would you prefer?	300 & 395

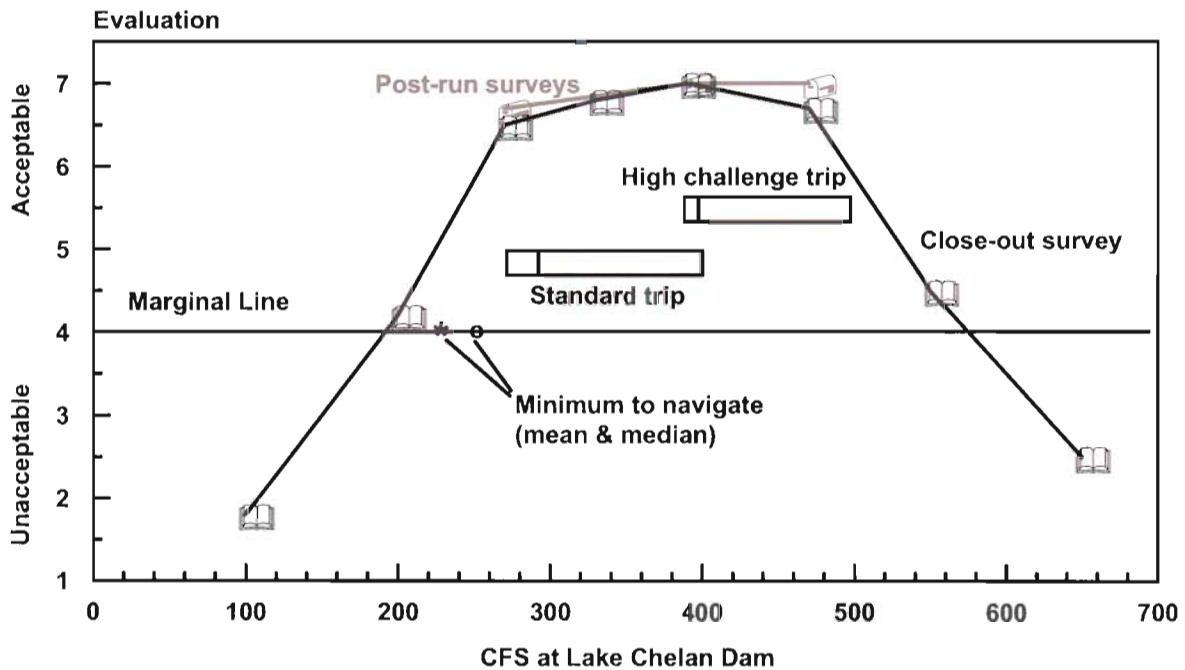


Figure 4-5: Mean post-run and close-out survey evaluations of various flows, with median specified flow ranges for two types of boating opportunities.

Recognizing that the relicensing process might lead to choosing one or two threshold levels to be provided for whitewater boating, we asked kayakers to specify a single flow they would like provided, or two flows that would provide distinct opportunities. Median results suggest that a single optimum choice would 381 cfs (the mean was 377 cfs), or just less than the second day’s flow of 391cfs. This flow is close to the transition range between standard and higher challenge trips, and near the apex of the flow evaluation curve from the close-out survey.

Median results for the two-flow question were 300 and 395 cfs (mean results were 293 and 410 cfs). At the low end, the range was from 250 cfs to 320 cfs, with three boaters reporting 300 cfs. At the high end, the range was from 375 cfs to 500 cfs, but four boaters reported flows between 390 and 420 cfs. In general, these results suggest that if two flows were to be provided, boaters would generally recommend choices at the low end of the optimal ranges for both standard and high challenge trips.

4.7 Integrated Flow Evaluation Curves

Taken together, the preceding information suggests there are essentially two boating opportunities on the Chelan River, distinguished mostly by the level of challenge they provide in the Gorge. Figure 4-6 presents idealized flow evaluation curves for both opportunities based upon professional judgments that integrate survey data and focus group discussion.

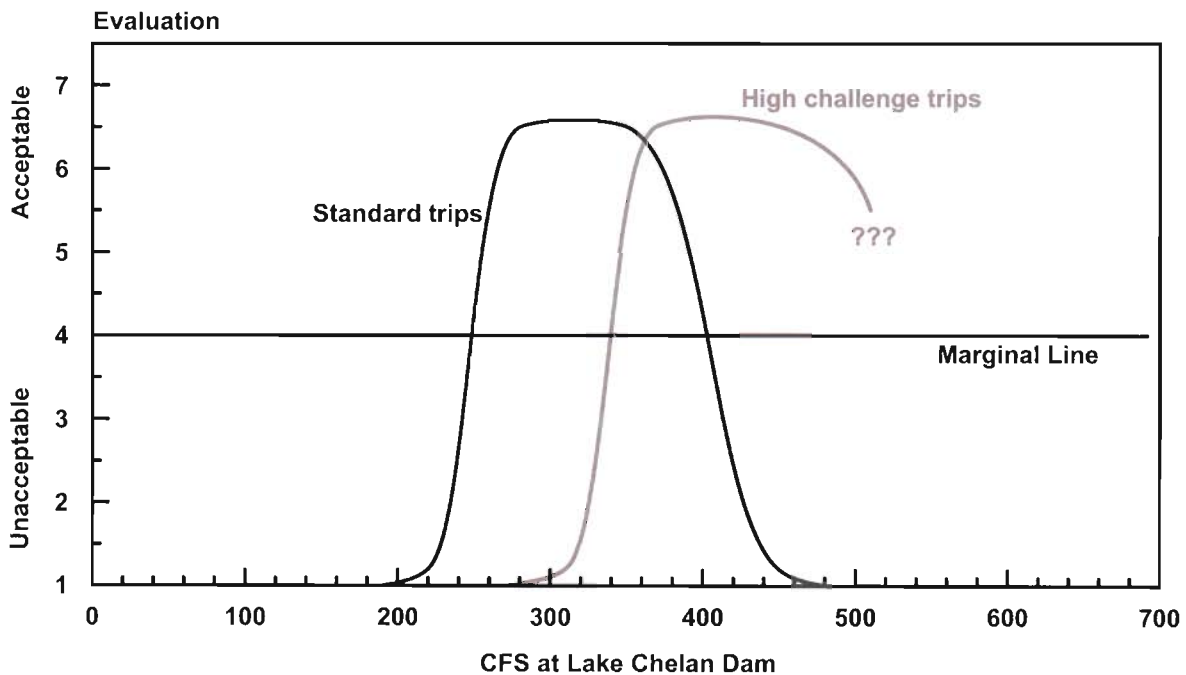


Figure 4-6: Professional judgment flow evaluation curves for two opportunities based on integrated information from surveys and focus groups.

The first curve, for standard trips, suggests that the river may be boatable as low as 225 cfs, but that the quality is unacceptable until about 240 cfs. From this flow, conditions improve steadily with increases in flow, becoming optimal about 275 cfs and remaining so until about 325 cfs. A single “representative flow” for this type of opportunity would be about 300 cfs. About 325 to 350 cfs, standard trips begin the transition into more challenging trips, and boaters looking for a standard trip would probably rate flow levels above 400 cfs as “marginal.”

The second curve, for higher challenge trips, suggests that flows below about 340 cfs are less acceptable, and that an optimal range for this trip is between about 375 and 475 cfs. As discussed above, there is some uncertainty about how high boaters can go, although we suspect even very skilled boaters would find 550 to 600 cfs at their limit. A single “representative flow” for this opportunity is probably around 425 cfs, although this may have to be adjusted upwards as the river becomes known, or if skill and equipment improvements continue as they have in the past decade.

4.8 Interest in Flow Diversity

Boaters were asked about the importance of releasing a diversity of flows to provide 1) different types of boating experiences, or 2) different opportunities for people with different skill levels or craft types. Responses were given on a five point scale from “not at all important” to “extremely important;” check-off response was also available if boaters did not think it was important to provide a variety of flows for any reason. The average importance for different experiences was 3.7 (“very important”), while it was 3.2 (“moderately important”) for different skill types. In focus groups, boaters were clear that the Gorge provides Class V challenge at all three flows they observed, but that there may be two different types of experiences at different flows.

In general, boaters appeared to favor some variety of releases, perhaps on consecutive days in a weekend. In focus groups, boaters discussed the utility of weekend releases with a lower flow on Saturday and a higher flow on Sunday that would allow boaters to understand the boating lines under less demanding conditions, as well as provide for a diversity of experiences.

4.9 Regional Importance and Potential Demand

Boaters were asked several questions on the survey and in focus groups that may help estimate the regional importance and potential demand for whitewater boating on the Chelan River if boatable flows were provided.

After each run, boaters were asked “if this flow were provided periodically, are you likely to return for future boating?” Possible response categories were “definitely no,” “possibly,” “probably,” or “definitely yes.” At the two lowest flows, all six boaters responded “definitely yes,” while at the highest flow, five of the six responded “definitely yes” and the sixth responded “probably.”

In focus group discussions, boaters were very positive about the river and the whitewater opportunities it could provide. Key features were the scenic beauty of the canyon, clear water, warm water (rare for challenging whitewater rivers in the Pacific Northwest), and the number of challenging rapids in such a short reach.

Boaters also discussed the benefits of having other recreation opportunities and tourism amenities in the Chelan area. Boaters noted numerous other activities that could be appended onto a kayak trip or used to entertain family and friends who do not run Class V rivers. They also extolled the good camping, hotel accommodations, and restaurants in the Chelan area as potential draws.

Boaters were asked to compare the Chelan River with other rivers in Central Washington, Washington, the Pacific Northwest, and the country on a five point scale including: “worse than average,” “average,” “better than average,” “excellent,” and “among the very best.” Average responses suggest that the Chelan was “among the very best” in Central Washington, and “excellent” for Washington, the Pacific Northwest, and the country.

Boaters were asked to list other river segments in the Pacific Northwest that provide similar whitewater opportunities to those available on the Chelan. Boaters were able to provide the following list, but they also noted that the Chelan was relatively unique in providing so many challenging rapids in such a short reach, as well as having warm water and a spectacular canyon.

Little White Salmon
Lower Cispus
Green Truss reach on the White Salmon
Silver Creek (tributary to the Skykomish)
Robe Canyon
Richland Creek
South Fork of the Yuba (California)

SECTION 5: SUMMARY

Taken together, the on-land and on-river phases of the study suggest several conclusions and recommendations about boating feasibility, optimal flow levels for different boating opportunities.

5.1 Boating Feasibility

The on-land assessment suggested that the river would be boatable by skilled Class V paddlers, and the on-river assessment confirmed this finding. All six boaters were able to run the river at all three flows (273, 391, and 475 cfs), although all boaters chose to portage two rapids (Pinnacle Falls and Boulder Sieve) and some boaters chose to portage Entrance Exam at some flows. Two boaters also swam at two separate rapids, but these were relatively minor incidents (no one was injured; all equipment was recovered; boaters completed their runs).

At the three study flows, the Chelan River offers boatable conditions on the Upper River and challenging Class V whitewater in the Gorge for kayaks or similar hard-shelled craft. The river, however, does not appear to provide opportunities for other whitewater craft such as small rafts, catarafts, or inflatable kayaks.

5.2 Optimal Flows

All three study flows provided acceptable to optimal boating conditions, but also offered distinct conditions and types of trips. In general, there appear to be two types of opportunities on the river. At lower flows (about 275 to 400 cfs) a “standard opportunity” is provided, with more boatability problems in the Upper River and the Lower Gorge, but with less power in the difficult rapids in the Gorge (e.g., Entrance Exam, Double Slide, Throne Falls). At higher flows (about 400 to 500 cfs), a “high challenge opportunity” is provided, with fewer boatability issues, but less margin for error in the major drops of the Gorge.

If a single flow were to be provided for boating, 375 cfs appears to make the most sense. This is where standard trips transition into high challenge trips, but both opportunities are provided at near-optimal levels. An alternative scenario, however, might provide two different flows for boating at different times. This would allow optimal releases for both opportunities, providing diversity that boaters appear to appreciate. Under this option, flows about 300 cfs and 425 cfs could be provided on consecutive days over weekends when flows are provided.

If boating flows are provided at these or other levels, we recommend periodic reviews of those releases over the years. As boaters become more familiar with the river and the runnable boating lines in rapids, they may be interested in some flow adjustments. Based on advances in skills and equipment over the past five to ten years, we would not be surprised to see some interest in higher flows develop after a few years. Based on these study results and current skill levels, however, about 500 cfs would probably be the limit for most boaters.

APPENDIX A: INTERNATIONAL SCALE OF RIVER DIFFICULTY

(Borrowed by permission from the American Whitewater web page)

The following is the American version of a rating system used to compare river difficulty throughout the world. This system is not exact; rivers do not always fit easily into one category, and regional or individual interpretations may cause misunderstandings. It is no substitute for a guidebook or accurate first-hand descriptions of a run.

Paddlers attempting difficult runs in an unfamiliar area should act cautiously until they get a feel for the way the scale is interpreted locally. River difficulty may change each year due to fluctuations in water level, downed trees, recent floods, geological disturbances, or bad weather. Stay alert for unexpected problems!

As river difficulty increases, the danger to swimming paddlers becomes more severe. As rapids become longer and more continuous, the challenge increases. There is a difference between running an occasional Class IV rapid and dealing with an entire river of this category. Allow an extra margin of safety between skills and river ratings when the water is cold or if the river itself is remote and inaccessible.

THE SIX DIFFICULTY CLASSES:

Class I: Easy. Fast moving water with riffles and small waves. There are few obstructions, all obvious and easily missed by people with little training. Risk to swimmers is slight; self-rescue is easy.

Class II: Novice. Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium sized waves can be easily avoided by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed. Rapids that are at the upper end of this difficulty range are designated "Class II+".

Class III: Intermediate. Rapids with moderate, irregular waves which may be difficult to avoid and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided. Strong eddies and powerful current effects can be found, particularly on large-volume rivers. Scouting is advisable for inexperienced parties. Injuries while swimming are rare; self-rescue is usually easy but group assistance may be required to avoid long swims. Rapids that are at the lower or upper end of this difficulty range are designated "Class III-" or "Class III+" respectively.

Class IV: Advanced. Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure. A fast,

reliable eddy turn may be needed to initiate maneuvers, scout rapids, or rest. Rapids may require “must” moves above dangerous hazards. Scouting may be necessary the first time down. Risk of injury to swimmers is moderate to high, and water conditions may make self-rescue difficult. Group assistance for rescue is often essential but requires practiced skills. A strong Eskimo roll is highly recommended for kayakers. Rapids that are at the upper end of this difficulty range are designated "Class IV-" or "Class IV+" respectively.

Class V: Expert. Extremely long, obstructed, or very violent rapids which expose paddlers to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex, demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness. What eddies exist may be small, turbulent, or difficult to reach. At the high end of the scale, several of these factors may be combined. Scouting is recommended but may be difficult. Swims are dangerous, and rescue is often difficult even for experts. A very reliable Eskimo roll (for kayakers), proper equipment, extensive experience, and practiced rescue skills are essential. Because of the large range of difficulty that exists beyond class IV, Class 5 is an open ended, multiple level scale designated by Class 5.0, 5.1, 5.2, etc. Each of these levels is an order of magnitude more difficult than the last. Example: Increasing difficulty from class 5.0 to class 5.1 is a similar order of magnitude as increasing from Class IV to Class V.

Class VI: Extreme and Exploratory. These runs have almost never been attempted and often exemplify the extremes of difficulty, unpredictability, and danger. The consequences of errors are very severe and rescue may be impossible. For teams of experts only, at favorable water levels, after close personal inspection and taking all precautions. After a Class VI rapids has been run several times, its rating may be changed to an appropriate Class 5.x rating.

APPENDIX B: SURVEY INSTRUMENTS

Pre-Run Survey

Date: _____ / _____ / 2000
 Your name: _____

1. What type of craft do you generally use for whitewater paddling? *(Circle one)*

1. Hard shell kayak	5. Cataract (please indicate length: _____)
2. Inflatable kayak	6. Self-bailing raft (please indicate length: _____)
3. Closed deck canoe	7. Wrap-floor raft (please indicate length: _____)
4. Open canoe with floatation	8. Other: (please explain) _____
2. How many years have you been using this type of craft? _____ years
3. How would you rate your skill level with this type of craft?

Novice (comfortable running Class II whitewater)
 Intermediate (comfortable running Class III whitewater)
 Advanced (comfortable running Class IV whitewater)
 Expert (comfortable running Class V whitewater)
4. In general, how many days per year do you spend whitewater boating? _____ days per year
5. What is your age? _____ years
6. Are you male or female?

Please respond to each of the following statements about your river-running preferences.

	Strongly disagree	Moderately disagree	Slightly disagree	No Opinion	Slightly agree	Moderately agree	Strongly agree
I prefer running rivers with difficult rapids (Class IV and V).	1	2	3	4	5	6	7
Running challenging whitewater is the most important part of my boating trips.	1	2	3	4	5	6	7
I often boat short river segments (under 4 miles) to take advantage of whitewater play areas.	1	2	3	4	5	6	7
I often boat short river segments to experience a unique and interesting place.	1	2	3	4	5	6	7
I often boat short river segments to run challenging rapids.	1	2	3	4	5	6	7
Good whitewater play areas are more important than challenging rapids.	1	2	3	4	5	6	7
I am willing to tolerate difficult put-ins and portages in order to run interesting reaches of whitewater.	1	2	3	4	5	6	7
I prefer boating rivers that feature large waves and powerful hydraulics.	1	2	3	4	5	6	7
I prefer boating steep, technical rivers.	1	2	3	4	5	6	7
I enjoy boating both technical and big water rivers.	1	2	3	4	5	6	7

Post-Run Survey

Date of run: ____ / ____ / 2000

Your name: _____

1. What type of craft did you use for this run (Circle one)?

- | | |
|-------------------------------|---|
| 1. Hard shell kayak | 5. Cataract (please indicate length: ____) |
| 2. Inflatable kayak | 6. Self-bailing raft (please indicate length: ____) |
| 3. Closed deck canoe | 7. Wrap-floor raft (please indicate length: ____) |
| 4. Open canoe with floatation | 8. Other: (please explain) _____ |

2. What was the flow on this run?

____ cfs

3. Please estimate the time you put-in and completed this run.

Put-in time: ____

Take-out time: ____

4. About how many times did you stop and get out of your boat for breaks, or for scouting and portaging in the Gorge?

About ____ times for breaks.

About ____ times for scouting or portaging.

5. Please estimate the total amount of time you spent out of your boat for breaks, or for scouting and portaging in the Gorge.

About ____ minutes for breaks.

About ____ minutes for scouting or portaging.

6. In general, how would you rate the whitewater difficulty on the two reaches of the river at this flow? (Use the International Whitewater Scale that ranges from Class I to Class VI).

Upper river (from put-in to the start of Gorge): ____

Lower river (from start of Gorge to take-out): ____

7. Using place names on the maps provided, please identify particularly challenging rapids or sections and rate their difficulty at this flow (using the International Whitewater Scale).

Location:	Rating:	Location:	Rating:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Boating Feasibility Assessment

Please evaluate the flow in the Gorge during this run for your craft and skill level for each of the following characteristics. (Circle one number for each item).

	Totally unacceptable	Moderately unacceptable	Slightly unacceptable	Marginal	Slightly acceptable	Moderately acceptable	Totally acceptable
Upper River boatability	1	2	3	4	5	6	7
Gorge boatability	1	2	3	4	5	6	7
Availability of challenging technical boating in Gorge	1	2	3	4	5	6	7
Availability of powerful hydraulics in Gorge	1	2	3	4	5	6	7
Availability of whitewater "play areas" in Gorge	1	2	3	4	5	6	7
Overall whitewater challenge in Gorge	1	2	3	4	5	6	7
Safety in Gorge	1	2	3	4	5	6	7
Aesthetics in Gorge	1	2	3	4	5	6	7
Rate of travel in Gorge	1	2	3	4	5	6	7
Number of portages in Gorge	1	2	3	4	5	6	7
Please make an overall evaluation considering all of the flow-related conditions that contribute to a high quality trip.							
Overall Rating Upper River	1	2	3	4	5	6	7
Overall Rating Gorge	1	2	3	4	5	6	7
Overall Rating Entire Run	1	2	3	4	5	6	7

In general, would you prefer a flow that was higher, lower, or about the same as this flow? (Circle one).

1. Much lower flow
2. Slightly lower flow
3. About the same; this was close to an optimum flow
4. Slightly higher flow
5. Much higher flow

If this flow were provided periodically, are you likely to return for future boating? (Circle one).

1. Definitely no
2. Possibly
3. Probably
4. Definitely yes

Provide any additional comments about this flow below. If necessary, please use the names on the map provided to identify specific locations.

Close-out Survey

Date: _____ / _____ / 2000

Your name: _____

For a high quality trip on the Chelan River, please rate the importance of the following components.

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Boatability	1	2	3	4	5
Availability of challenging technical boating	1	2	3	4	5
Availability of powerful hydraulics	1	2	3	4	5
Availability of whitewater "play areas"	1	2	3	4	5
Overall whitewater challenge	1	2	3	4	5
Safety	1	2	3	4	5
High quality aesthetics	1	2	3	4	5
Good rate of travel	1	2	3	4	5
Few portages	1	2	3	4	5
Easy put-ins and take-outs	1	2	3	4	5

Given what you know about the quality of whitewater and other features along the Chelan River, please tell us how many **hits**, **stops**, **boat drags**, and **portages** are acceptable for a high quality trip? If you "don't care," place an X in the space provided.

I will accept about _____ **hits** per trip (contacts with rocks/other obstacles that do not stop you).

I will accept about _____ **stops** per trip (contacts with rocks or other obstacles that stop you, but you do not have to get out of your boat to continue downstream).

I will accept about _____ **boat drags** per trip (times where you have to get out of your boat to get it off of rocks or other obstacles).

I will accept about _____ **portages** around unrunnable sections per trip.

Compared to other rivers, how would you rate boating opportunities on the Chelan River. (Circle one number for each; if you are unsure about a comparison, leave that item blank).

Compared to...	the Chelan River is...				
	Worse than average	Average	Better than average	Excellent	Among the very best
...other rivers in Central Washington	1	2	3	4	5
...other rivers in Washington	1	2	3	4	5
...other rivers in the Pacific Northwest	1	2	3	4	5
...other rivers in the country	1	2	3	4	5

Please evaluate the following flows for your craft and skill level. In making your evaluations, please consider all the flow-dependent characteristics that contribute to a high quality trip (e.g., boatability, whitewater challenge, safety, availability of surfing or other play areas, aesthetics, and rate of travel).

Boating Feasibility Assessment

(If you do not feel comfortable evaluating a flow you have not seen, don't circle a number for that flow).

	Totally unacceptable	Moderately unacceptable	Slightly unacceptable	Marginal	Slightly acceptable	Moderately acceptable	Totally acceptable
Flow 1	1	2	3	4	5	6	7
Flow 2 (on ___/___)	1	2	3	4	5	6	7
Flow 3	1	2	3	4	5	6	7
Flow 4 (on ___/___)	1	2	3	4	5	6	7
Flow 5	1	2	3	4	5	6	7
Flow 6	1	2	3	4	5	6	7
Flow 7 (on ___/___)	1	2	3	4	5	6	7
Flow 8	1	2	3	4	5	6	7

Based on your boating trips on the Chelan River, please specify the flows that provide the following types of experiences. (Note: you can specify flows that you have not seen, but which you think would provide the type of experience in question).

Think of the river as a waterway used for transportation. What is the lowest flow you need to simply get down the river in your craft?

Flow in cfs

Many people are interested in a "standard" whitewater trip at medium flows. Think of this "standard trip" in your craft.

What is the lowest flow that provides a quality experience for this type of trip?

What is the best or optimal range of flows for this type of trip?

_____ to _____

Some people are interested in taking trips at higher flows for increased whitewater challenge. Think of this "high challenge trip" in your craft.

What is the lowest flow that provides a quality experience for this type of trip?

What is the best or optimal range of flows for this type of trip?

_____ to _____

What is the highest safe flow for your craft and skill level?

If Chelan PUD released only one flow for boating, what flow would you prefer?

If Chelan PUD released two flow levels that offer different types of boating experiences, what two flows would you prefer?

_____ & _____

How important is it to release a variety of flow levels on the Chelan River? Please rate the importance of providing several different flows for the two reasons below, or check the box.

Providing several different flows is necessary to...	Not at all important	Slightly important	Moderately important	Very important	Extremely important
...provide different types of boating experiences.	1	2	3	4	5
... provide opportunities for people with different skill levels and craft types.	1	2	3	4	5

Or... it isn't important to provide a variety of flow levels.

APPENDIX C: NOTES FROM FOCUS GROUP MEETINGS

Saturday 7/8 Notes

Advantages:

manageable speed
can see rocks
can see what is under water
good introduction to the gorge
good to learn the lines in rapids

Disadvantages:

upper reach is bony
run out below boulder sieve is bony
gorge rapids might clean up at higher flows

If higher:

fewer boaters might be attracted to gorge
upper reach may get more boatable
lower gorge is likely to improve – more choices

If lower:

wouldn't want to go much lower
gorge drops might get steeper and more dangerous
equipment likely to get damaged
below the bridge slots might get unrunnable (pinning hazards)
above gorge would be very bony

Sunday 7/9 Notes

Advantages:

gorge cleaned up/smoothed up some drops
upper braided reach was more boatable

Disadvantages:

entrance exam got more intimidating
more power in boulders near the bridge area

If higher:

entrance exam may begin to change and get bigger, pushier

If lower:

maybe a nice median? between 275 and 400 cfs?

Monday 7/10 Notes:

Advantages:

more fun to watch
softer landings in major rapids (more air)
pushier water
lines still all there
smoother lines in some rapids

Disadvantages:

harder to get lines
less margin for error
hydraulics at entrance exam get bigger

If higher:

interesting to see
less margin for error, especially at Throne
drops might start to be linked; less time/room for rolls
best is between Sat and Sun flow? 350 cfs?

If lower:

We've covered this with previous notes/discussions

Similar runs:

Little White Salmon
Lower Cispus
Green Truss on White Salmon
Silver Creek on Skykomish
Robe Canyon
Richland Creek
So Fork Yuba

How does this rate compared to others:

good destination, lots of other things in the area; good for a family trip (boaters can run Gorge, others can find other things to do...)
great weather
beautiful water (clear)
great pace in the canyon – takes a good ¾ day
warm water
good facilities/accommodation in area

**APPENDIX D: LIST OF INDIVIDUALS AND AGENCIES WHO
ASSISTED WITH THE STUDY**

Chelan County PUD

Event Coordinator:

Michelle Smith, Relicensing Specialist

Operations and spill:

Dave Brown, Operations Superintendent

Rob Campbell, Chelan Hydro Operator/Maintainer

Greg Perry, USGS (gjerry@usgs.gov,) 509-353-2633

Communications and media:

Steve Lachowicz, Relicensing

Wayne Wright, Manager of Corporate Communications

Kim Craig, Public Information Assistant

Logistics and film crew safety:

Jeff Osborn, Fish & Wildlife Relicensing

Keith Truscott, (Sat only) Parks and Facilities Supervisor

Bill Christman, (Mon only) Supervising Principal Civil Engineer

Chelan PUD Commissioners:

Jim Wall, Bob Boyd, Gary Montague, Barbara Tilly, Dave Pflugrath

Chelan PUD General Counsel:

Carol Wardell

Film crews:

Entrance Exam

Eric and Damon Ristau (Spokane, snakeriverfilms@yahoo.com)

Central Gorge

Brett and Lance McGinnis

(M&M Productions, 150 SE 1st Street, East Wenatchee, WA 98802; 509-886-5139)

Accommodations: Caravel Resort

Chelan County Sheriff's Department:

Doug Tangen, Steve Goodman

APPENDIX E: BOATER LIABILITY WAIVER FORM

ASSUMPTION OF RISK AND GENERAL RELEASE OF LIABILITY

1. I have requested access to the Chelan River Gorge for the purpose of whitewater paddling. Public Utility District No. 1 of Chelan County, Washington (hereinafter referred to as the "PUD") has agreed to grant such access without charge. I fully accept all of the conditions of this agreement and understand its terms. I understand that the access granted by the PUD is effective only for the specific date(s) agreed upon by the PUD in 2000.
2. I recognize that the whitewater paddling in the Chelan River in which I have requested to participate is a rigorous activity that may be physically, mentally and emotionally stressful and may aggravate existing physical, mental or emotional conditions or cause new ones. I recognize that the activity could be dangerous and hazardous and poses known and unanticipated risks. I understand that the dangers may include damage to or destruction of personal property; serious physical injury or even death, arising from a variety of hazards including, but not limited to, and by way of example only, rocks, hazardous terrain, trees, debris, powerful waves, waterfalls, hydraulics and various other man-made or natural hazards; and difficulty or improbability of rescue. I understand that American Whitewater has determined the Chelan River Gorge to contain difficult Class IV and V rapids. I understand that Class V waters represent the most difficult and dangerous level of whitewater paddling. I understand that the Chelan River has not been previously used for whitewater recreation. I further understand that American Whitewater, not the PUD, has determined that Chelan River is suitable for whitewater paddling. I further understand that there is no prepared access into or exit from the river canyon/gorge. I am personally responsible for choosing the method, route and equipment necessary to gain access to and exit from the river and gorge. I acknowledge that under these circumstances the usual hazards associated with whitewater paddling will be compounded. I also understand that there may be variations in river flows that could alter the character of the river . The PUD will attempt to provide the flows that have been requested by American Whitewater for the controlled flow study. However, I understand that the PUD cannot guarantee that particular water flows will be provided. I further understand that the amount of flow can only be estimated and cannot be controlled with any certainty.
3. I have requested the opportunity to participate in this activity. The PUD has not requested nor required that I participate.
4. I take full responsibility for my own safety and am not relying upon the PUD, Chelan County or any other entity or person for my safety or rescue. I have personally investigated the conditions and have made my own determination as to the suitability of the river and the gorge for whitewater paddling and my competency and ability to participate.

5. In addition, I recognize and accept:
 - a. that none of the participants will be acting as a professional river guide;
 - b. that I am personally and solely responsible for determining whether I have the skill and expertise to safely navigate the river;
 - c. that I am solely responsible for selecting equipment suitable for use during my participation;
 - d. that I am solely responsible for my own safety; and
 - e. that no other person or entity has any obligation to attempt to rescue me, and that any attempted rescue may, in fact, exacerbate my condition and/or cause injury or death.

6. I understand and expressly assume all the dangers incident to my decision to whitewater paddle the Chelan River. I hereby release all claims that I, my spouse or my children may have, including, but not limited to, property damage or destruction and personal injury or death which relate to, arise out of or are in any way connected with my participation in this activity, including specifically but not limited to any liability of or claims against: (a) the PUD, its officers, commissioners, employees, or any other persons or entities that may be involved in facilitating any use and enjoyment of the river segment involved; (b) Shelby Research and Consulting and EDAW, Inc.; (c) Chelan County, its commissioners and employees; and (d) each and every other participant.

7. I have personally inspected the route and conditions of the Chelan River Gorge. I have read and understand the following documents.
 - a. The barrier analysis of the Chelan Gorge and the descriptions of the rocks, falls, eddies, hydraulics and other conditions of the Gorge prepared by R2 Resource Consultants, Inc.
 - b. Memoranda from the Chelan County Sheriff dated June 22, 1998 and April 29, 1999.
 - c. Memorandum from the Chelan County Fire District No. 7 dated April 26, 1999.
 - d. Letters from Chelan PUD to FERC dated February 18, 2000 and May 3, 1999 and all attachments to said letters.

8. I recognize that neither the PUD nor its commissioners, officers, directors, employees, agents, successors or assigns are providing any liability, health or other insurance in connection with my decision to whitewater paddle the Chelan River Gorge. I agree to assume all financial responsibility for medical, rescue or other reasonable and necessary expenses that may be incurred on my behalf. I agree to defend, hold harmless and indemnify the PUD, its commissioners, officers, directors, employees, agents, successors or assigns, Shelby Research and Consulting, EDAW, Inc., and Chelan County, its commissioners and employees, for any loss or damage, including attorneys fees, that may result should I or anyone else pursue an action or claim for which I have accepted responsibility or that I have waived or surrendered by this release and waiver.

9. I also assume full responsibility for and agree to defend, hold harmless and indemnify the PUD, its commissioners, officers, directors, employees, agents, successors and assigns,

Shelby Research and Consulting, EDAW, Inc., and Chelan County, its commissioners and employees, against any claims, losses or judgments that may arise from any damage or harm that I may incur or cause. I shall be responsible for any equipment used by me.

- 10. This waiver shall be binding upon me, my heirs, executors and administrators.
- 11. I understand that this is the entire agreement and release. I understand that this agreement and release cannot be modified or changed in any way by representations or statements by the employees or agents of the PUD, Shelby Research and Consulting or EDAW, Inc.
- 12. I represent that:
 - a. I am 18 years of age or older.
 - b. I am submitting this release and waiver voluntarily and of my own free will.
 - c. I have no physical, mental or emotional problems, nor any history thereof, which could impair my ability to participate or to understand the meaning and intent of this waiver and release document.
 - d. **I AM FULLY AWARE OF THE CONTENTS OF THIS RELEASE AND HAVE READ THE ENTIRE DOCUMENT. I HAVE READ AND UNDERSTAND THIS DOCUMENT AND AM BOUND BY ITS TERMS.**

DATED this _____ day of _____, 2000.

SIGNED BY:

Print Name:

Address:

WITNESSED BY:

Print Name

Address

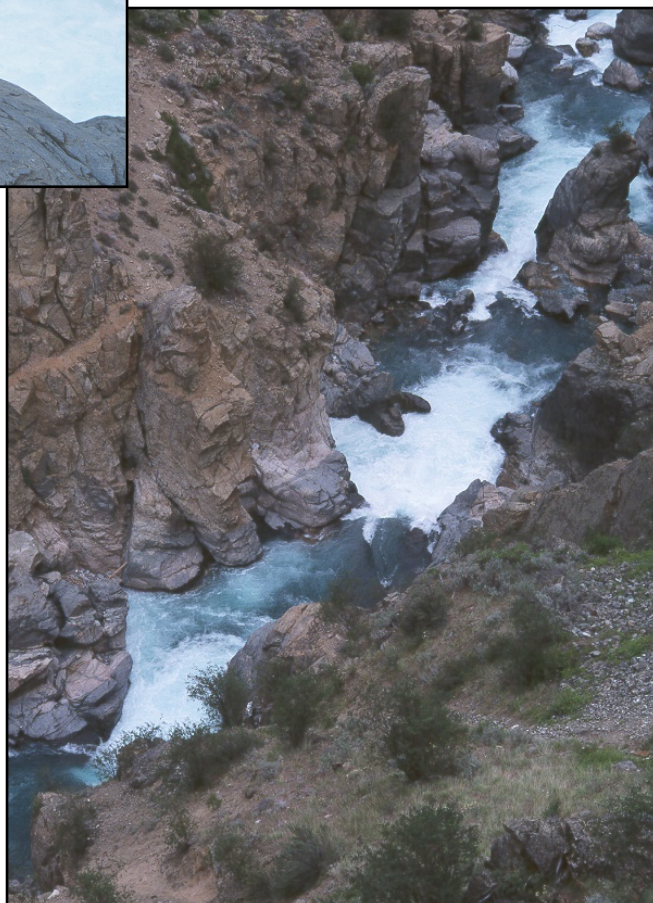
APPENDIX F: PHOTOS FROM THE ON-RIVER STUDY

Study Photos



John Gangemi examines possible routes through Double Slide and Super Boof Falls during the on-land assessment in June 1999. Whitewater advocates and consultants assessed three flows from land to determine if boaters could safely run or portage all the major rapids, and to estimate a flow range for the on-river component of the study.

View of the Central Gorge from an overlook on the Gorge Road during the on-land assessment. Rapids in view include (in order descending downstream from bottom left of photo): Super Boof Falls, Throne Falls, Pinnacle Falls, and Boulder Sieve.





Paddlers started the on-river assessment by carrying their kayaks to the put-in, an undeveloped area immediately downstream of the dam. The take-out was at a developed area, Chelan County PUD's Powerhouse Park. Both provided good access for kayakers.

Greg Perry of the US Geological Service measured flows provided each day during the on-river component of the study. Several other agencies and organizations also contributed to the success of the study.





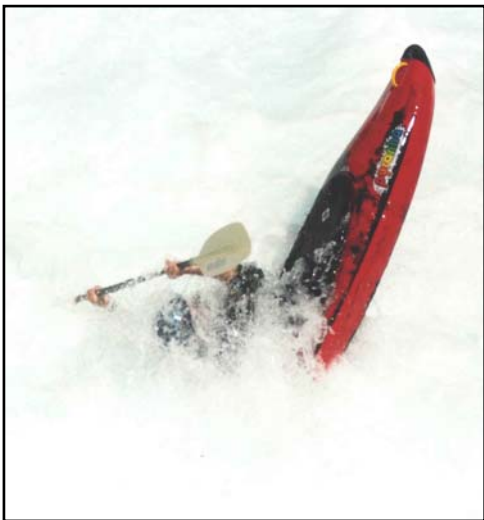
Kayakers paddle through Section 1 on the Upper River at 475 cfs. Higher flows provided more route options and produced fewer “hits,” although even this highest flow left many exposed rocks and did not fill the bottom of the channel.

John Gangemi and Rick Williams discussing alternative routes in the Central Gorge. All major rapids offered scouting, portaging, and safety/rescue options in the flow range studied.

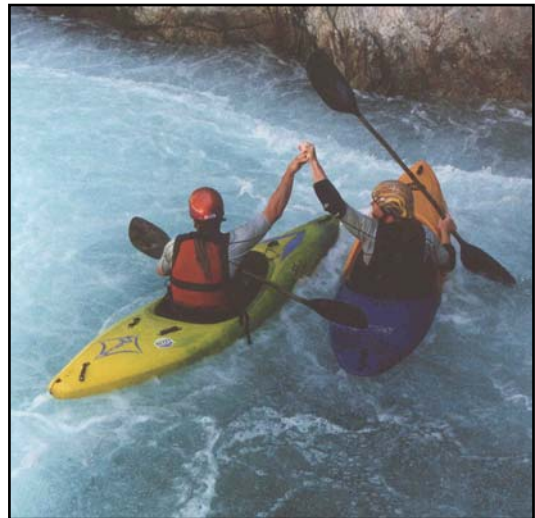




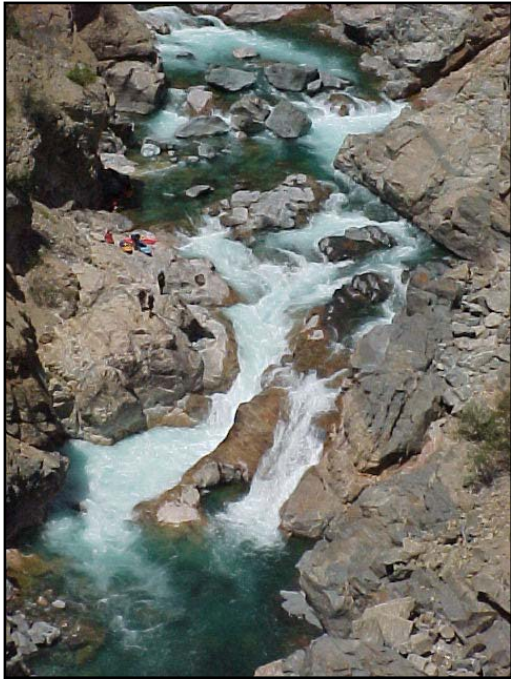
Britt Gentry entering the second drop in Entrance Exam at 391 cfs. Boaters needed to run this waterfall cleanly to set up for other drops immediately downstream of the “Punch Bowl” (an unstable eddy with rock undercuts in the bottom right of this photo). The photo was taken from Daybreak Canyon overlook on Gorge Road.



Tracy Clapp emerges from the third drop in Entrance Exam (named “Pile Up”) at 391 cfs. This hole became more powerful and “stickier” at higher flows.

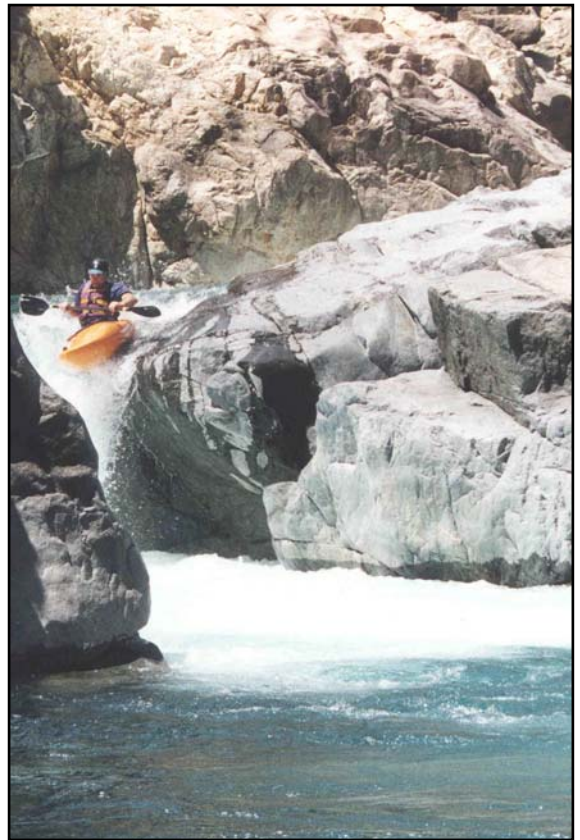


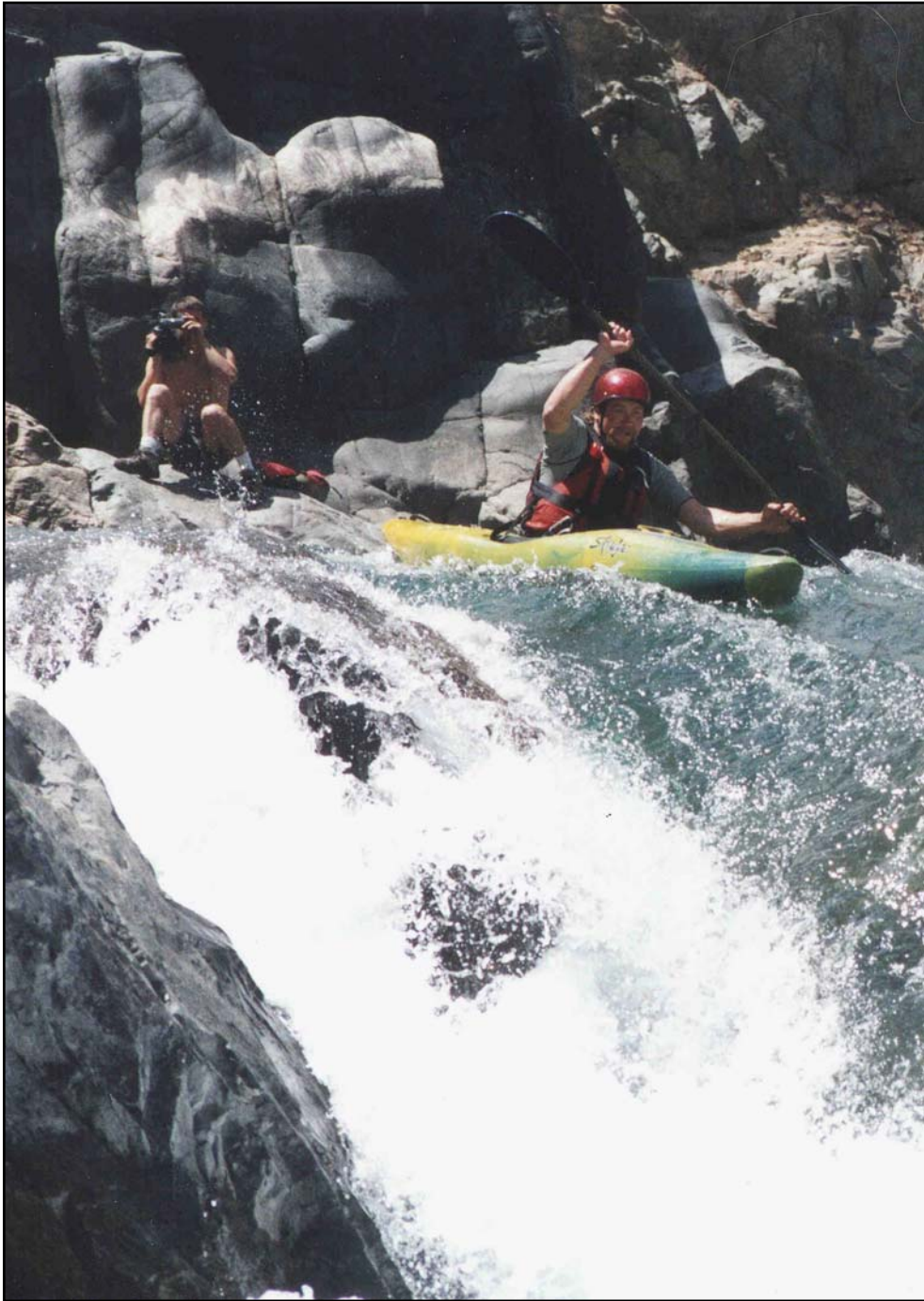
Forrest Hubler and Britt Gentry celebrate runs through Entrance Exam at 475 cfs. Teamwork and camaraderie helped boaters run the river safely and efficiently.



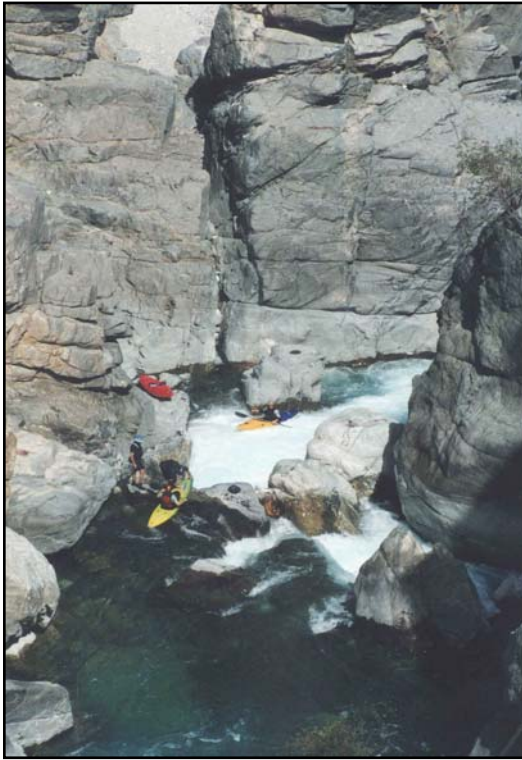
Kayakers scout Double Slide rapid in the Central Gorge at 391 cfs. The right side run (“Chelam Chute”) featured a steeper drop and more powerful hydraulics at all flows, and included an undercut wall on the left that several boaters scraped. The left side provided a less daunting run, but was more difficult to enter at lower flows because of an exposed rock at the top of the chute.

Bo Shelby executes the title move at Super Boof Falls at 391 cfs. Most rapids in the Central Gorge had good recovery pools at the two lower flows; at the highest flow, recovery time shortened and became more critical.





A videographer films Britt Gentry at the top of Throne Falls at 391 cfs. Video crews were stationed at five set locations along the river during the study, but also filmed from additional locations to capture the experience of boating the river. A video that summarizes the study and compares runs at different flows is available from Chelan County PUD.

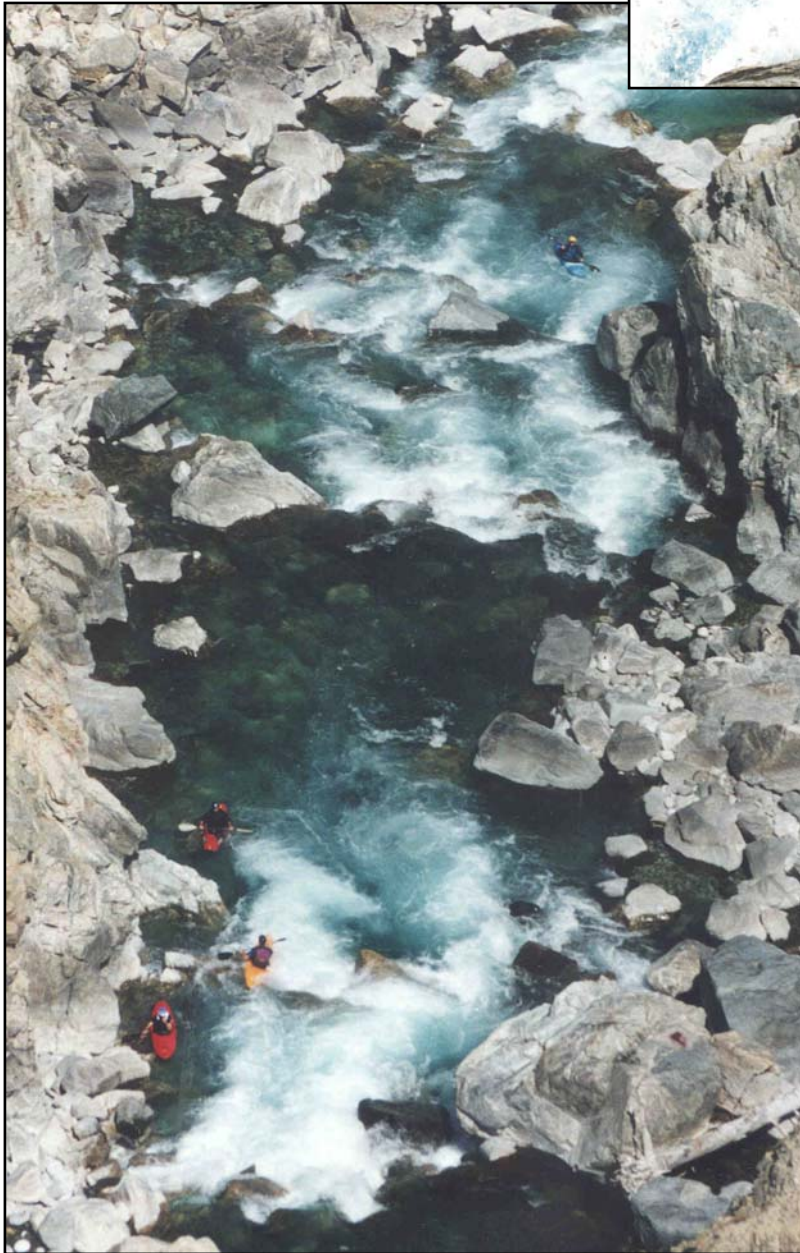


Boaters negotiate Boulder Sieve by “seal launching” down a 15-foot rock slide at 273 cfs. All boaters chose not to run Boulder Sieve or Pinnacle Falls (immediately upstream) at any flow.

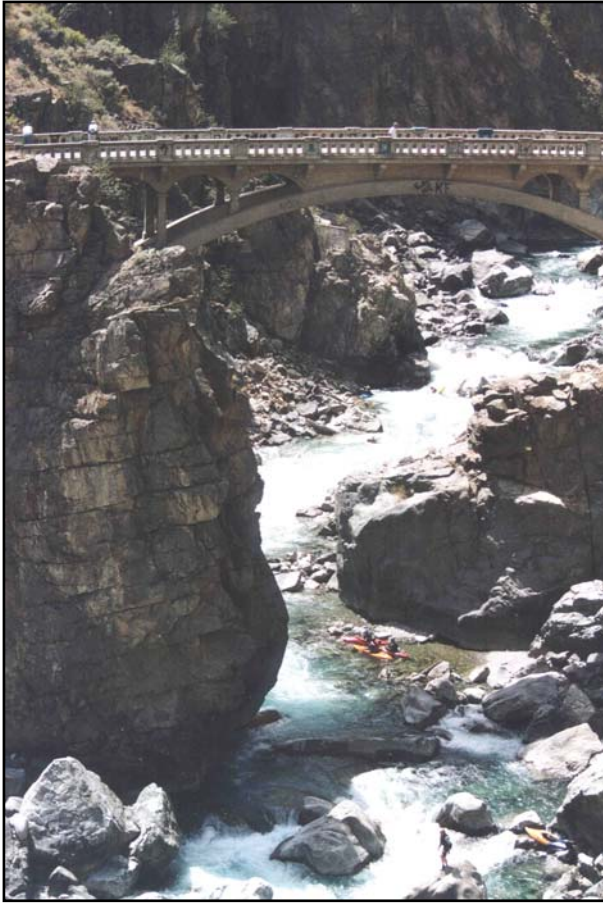


Forrest Hubler powers through a big hydraulic in the Chelan Gorge at 475 cfs. Higher flows required quicker and stronger reactions from paddlers.

Rick Williams in a drop in Extra
Credit rapid at 475 cfs.



Kayakers pick their way
through Extra Credit in the
Lower Gorge at 273 cfs.
Arrowhead Point, just off the
Gorge Road, provides
opportunities to appreciate
the scenic beauty of the
canyon.



Boaters exit Extra Credit in the Lower Gorge upstream of the Old County Bridge at 391 cfs. Higher flows in this section created more powerful hydraulics, but did not substantially widen the narrow chutes between boulders nor create new routes.



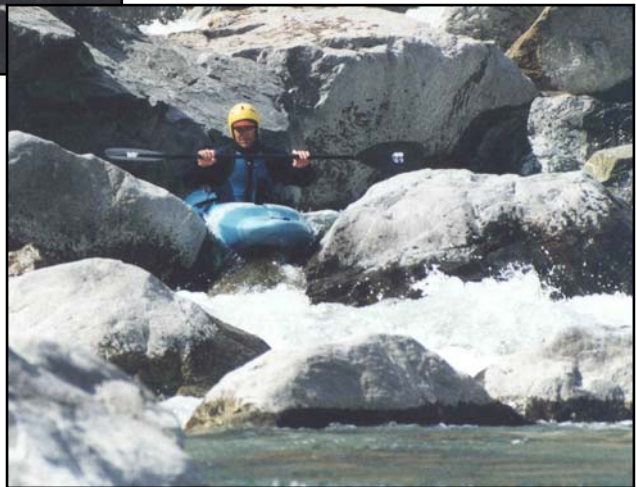
A study observer watches kayakers negotiate the boulder gardens in Extra Credit at 391 cfs. Chelan County PUD and the Chelan County sheriff's office allowed limited access to safe areas for both spectators and media during the study.

Britt Gentry running a narrow chute in Extra Credit at 391 cfs.



Scouting and portaging parts of Fat Lady rapid at 273 cfs. At lower flows, hydraulics were less powerful, although the channels between rocks were narrow and route options were limited.

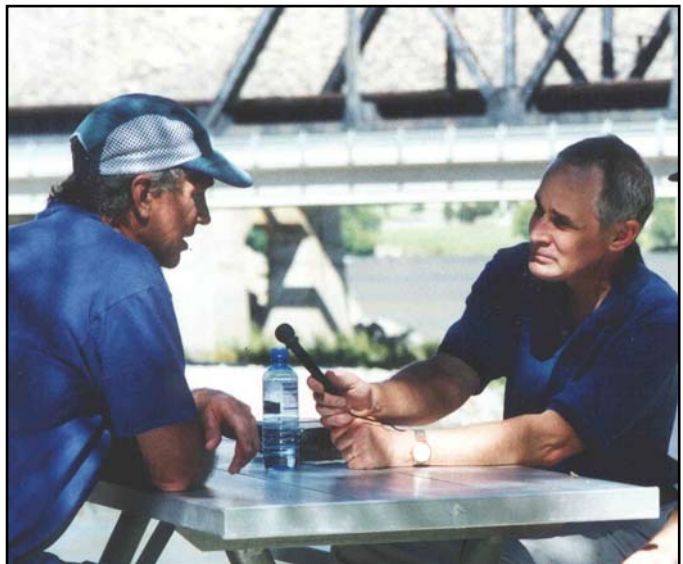
Rick Williams squeezes through a chute in Fat lady rapid at the end of the Lower Gorge at 273 cfs.



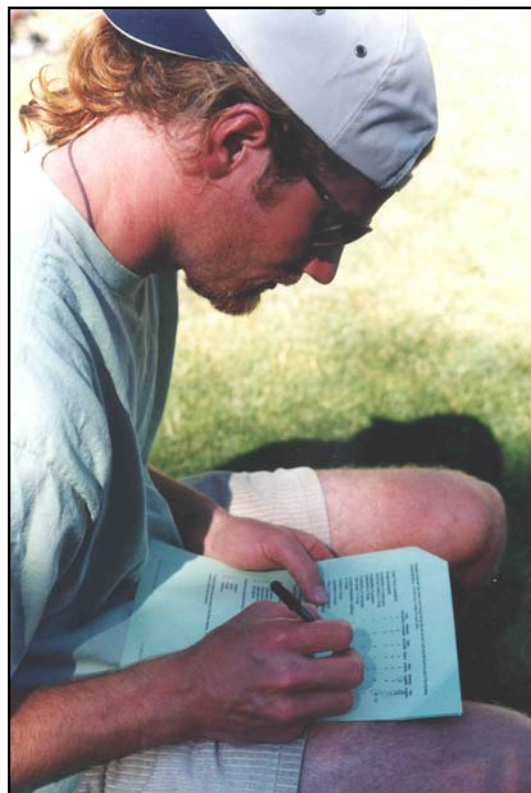


Boaters exit the Lower Gorge at 475 cfs. Whitewater abruptly turns to flatwater at the end of the Gorge, while the Chelan River continues for about a half mile through an alluvial channel before meeting the Columbia River. The powerhouse is in the top right hand corner of the picture; the take-out in Powerhouse Park is in the distance in the top center of the photo.

Steve Hair of KPQ interviews Bo Shelby after the third run. Media and public interest in the study was high because the Gorge had never been boated, kayaking is unfamiliar to many area residents, and flows may affect many resource values. Releases during the high run-off summer months offer opportunities for whitewater flows that do not decrease power generation.



Forrest Hubler filling out a survey. Boaters completed a survey after each run as well as a close-out survey that allowed comparisons between the three flows paddled during the study.



Boaters participated in a focus group after each run, adding qualitative information to the quantitative data provided on surveys.

ADDENDUM C: SURVEY INSTRUMENT

Post Run Survey

Date: _____

Name: _____

Phone: _____ E-mail: _____

Thank you for taking the time to complete this post run survey. Chelan PUD in cooperation with American Whitewater is conducting a 3 year monitoring study that will allow them the opportunity to determine if whitewater boating in the Chelan Gorge should continue into the future.

Rate the following:

(1 totally unacceptable, 2 moderately unacceptable, 3 slightly unacceptable 4 marginal 5 slightly unacceptable, 5 moderately acceptable, 7 totally acceptable)

The dates scheduled for the release (2nd and 4th weekends in July and September)

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Daily schedule (11 am to 6 pm)

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Convenience, ease of use and understanding of the reservation system

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Use and easy access to real-time flow information

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Based on your skill level, were you provided enough information to be prepared for the difficulty of this run?

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Score the quality of the flow you experienced (300 to 375 cfs Saturdays, 400 to 450 Sundays) for your craft and skill level. Please consider all the flow-dependent characteristics that contribute to a high quality trip (e.g. boatability, whitewater challenge, safety, availability of surfing or other play areas, aesthetics, and length of run.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

If you could select an optimal flow for boating on this reach given your craft and skill level, what flow would you prefer (please specify cfs)

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Was access to the beginning of the run easy to find and satisfactory to launching?

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

If you were with someone, or you yourself did not complete the run, how difficult was it to get out and back to the start of the run?

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

Would you recommend this whitewater boating experience through the Chelan Gorge to others?

Yes _____ No _____

Please provide any additional comments or suggestions on access to information about the run, flows provided, access, or any other issues you have.

Again, thank you for completing this survey. This information will be tabulated and become part of the final monitoring study report.

ADDENDUM D: BOATER LIABILITY WAIVER FORM

ASSUMPTION OF RISK AND GENERAL RELEASE OF LIABILITY

This is a release of all claims. Read it carefully and sign below. This release essentially says that you are voluntarily going to participate in an extremely dangerous activity and that you will not make any claim, sue or expect Chelan Public Utility District to be responsible or pay for any injury, death or property damage.

1. I, _____ (clearly print full legal name), have requested access to certain land and waters for the purpose of the Chelan gorge whitewater kayaking/paddling activity and other associated activities such as walking or hiking in the area (hereinafter known as "Activity"). Public Utility District No. 1 of Chelan County, Washington (hereinafter referred to as the "PUD") has agreed to allow such access without charge for the Activity. In consideration for this access, I fully understand and accept all of the conditions of this agreement.

2. I recognize that the Activity will be rigorous and physically, mentally and emotionally challenging and may aggravate existing physical, mental or emotional conditions or cause new ones. I recognize that the Activity is extremely dangerous. I understand that the dangers may include damage to or destruction of personal property, serious physical injury or even death, arising from a variety of hazards including, but not limited to, and by way of example only, rocks, hazardous terrain, trees, debris, powerful waves, waterfalls, hydraulics and various other man-made or natural hazards; and difficulty or improbability of rescue. The risks and dangers may arise from foreseeable or unforeseeable causes. I understand that American Whitewater has determined the Chelan gorge contains difficult Class IV and V rapids. These are the most difficult and

dangerous levels of whitewater, requiring the highest levels of training, experience, and physical ability. I understand that the Chelan gorge has not previously been used for whitewater recreation and is not suitable for general whitewater recreation. I also understand that the conditions of the river and gorge are constantly changing, and have not relied on any written description of those conditions. I further understand that there is no prepared access into or exit from the Chelan gorge and that the Chelan gorge is extremely narrow and steep. I take personal responsibility for choosing the method, route and equipment necessary to gain access to and exit from the river and gorge. I also understand that before and during the course of this Activity there may be natural or artificial variations in river flows that could alter the character of the river. I understand that the flows that are expected to be released are not exact nor can they be measured. I have read and understand the attached memoranda from the Chelan County Sheriff dated June 22, 1998 and April 29, 1999 and the Chelan County Fire District 7 dated April 26, 1999.

3. I take full responsibility for my own safety and am not relying upon the PUD, Chelan County or any other entity or person for my safety or rescue. I have not relied upon estimates of water flow, conditions of the gorge or river, or any other information from the PUD or any other entity. I will personally investigate the conditions and make my own determination as to the suitability of the river and the gorge for my participation in the Activity.

4. In addition, I recognize and accept:

- a. that I am personally and solely responsible for determining whether I have the skill and expertise to safely participate in the Activity and am solely responsible for my own safety;
- b. that I am solely responsible for selecting equipment suitable for use during my participation;
- c. that no other person or entity has any obligation to attempt to rescue me, and that any attempted rescue may, in fact, exacerbate my condition and/or cause injury or death;
- d. that I have voluntarily chosen to engage in the Activity and I was not invited or requested to participate in the Activity by the PUD; and
- e. The operational constraints on the PUD and the Chelan hydroelectric project and river conditions will preclude any reduction or change in flows to assist in any rescue efforts.

5. I understand and expressly assume all the dangers incident to the Activity and hereby release all claims including, but not limited to, property damage or destruction and personal injury or death, whether caused by negligence, breach of contract or otherwise, which I may ever have against: (a) the PUD, its officers, commissioners, employees, or any other persons or entities that may be involved in facilitating the Activity; (b) Chelan County and its commissioners and employees; and (c) each and every other participant in the Activity.

6. I recognize that neither the PUD nor its commissioners, officers, directors, employees, agents, successors or assigns are providing any liability, health or other insurance in connection with the Activity. I agree to assume all financial responsibility for medical, rescue or other expenses that may be incurred. I agree to defend, hold harmless and indemnify the PUD, its commissioners, officers, directors, employees, agents, successors or assigns and Chelan County, its commissioners and employees, for any loss or damage, including attorneys fees, that may result should I or anyone else on my behalf pursue an action or claim that is waived or barred by this release and waiver.

7. I also assume full responsibility for and agree to defend, hold harmless and indemnify the PUD, its commissioners, officers, directors, employees, agents, successors and assigns and Chelan County, its commissioners and employees, against any claims, losses or judgments that may arise from any damage or harm that I may incur or cause while participating in the Activity.

8. This waiver shall be binding upon me, my heirs, executors and administrators.

9. I represent that:

- a. I am 18 years of age or older.
- b. I am signing this release and waiver voluntarily and of my own free will.
- c. I have no physical, mental or emotional problems, nor any history thereof, which could impair my ability to participate in the Activity

or to understand the meaning and intent of this waiver and release document.

d. I have read and understand this entire document and am bound by its terms.

10. If it is necessary for either party to enforce the terms of this Release, the exclusive venue for any such action will be in Chelan County, Washington. The substantially prevailing party shall be entitled to receive attorneys' fees.

DATED this ____ day of _____ 2__.

SIGNED: _____

WITNESSED BY: _____

Print Name _____

Address _____

Print Name _____

Address _____

ADDENDUM E: ANNUAL SCHEDULE

Annual Schedule Whitewater Boating on the Chelan River 2008-2011

During the three-year whitewater boating monitoring study, Chelan PUD will release flows on the second and fourth weekends in July and September. Flows on Saturdays will be between 300 cfs and 375 cfs, and flows on Sundays will be between 400 cfs and 450 cfs. Chelan PUD will begin the ramping up of releases to meet these flows at 11:00 am and will begin ramping-down no sooner than 6:00 pm each day. Chelan PUD will not be obligated to provide whitewater boating flow releases in the Chelan River when the previous day's average Stehekin River inflow is less than 333 cfs, or when the Mid-Columbia Index is greater than \$150/MWh (\$2001) as adjusted pursuant to section 19.1 of the Settlement Agreement.

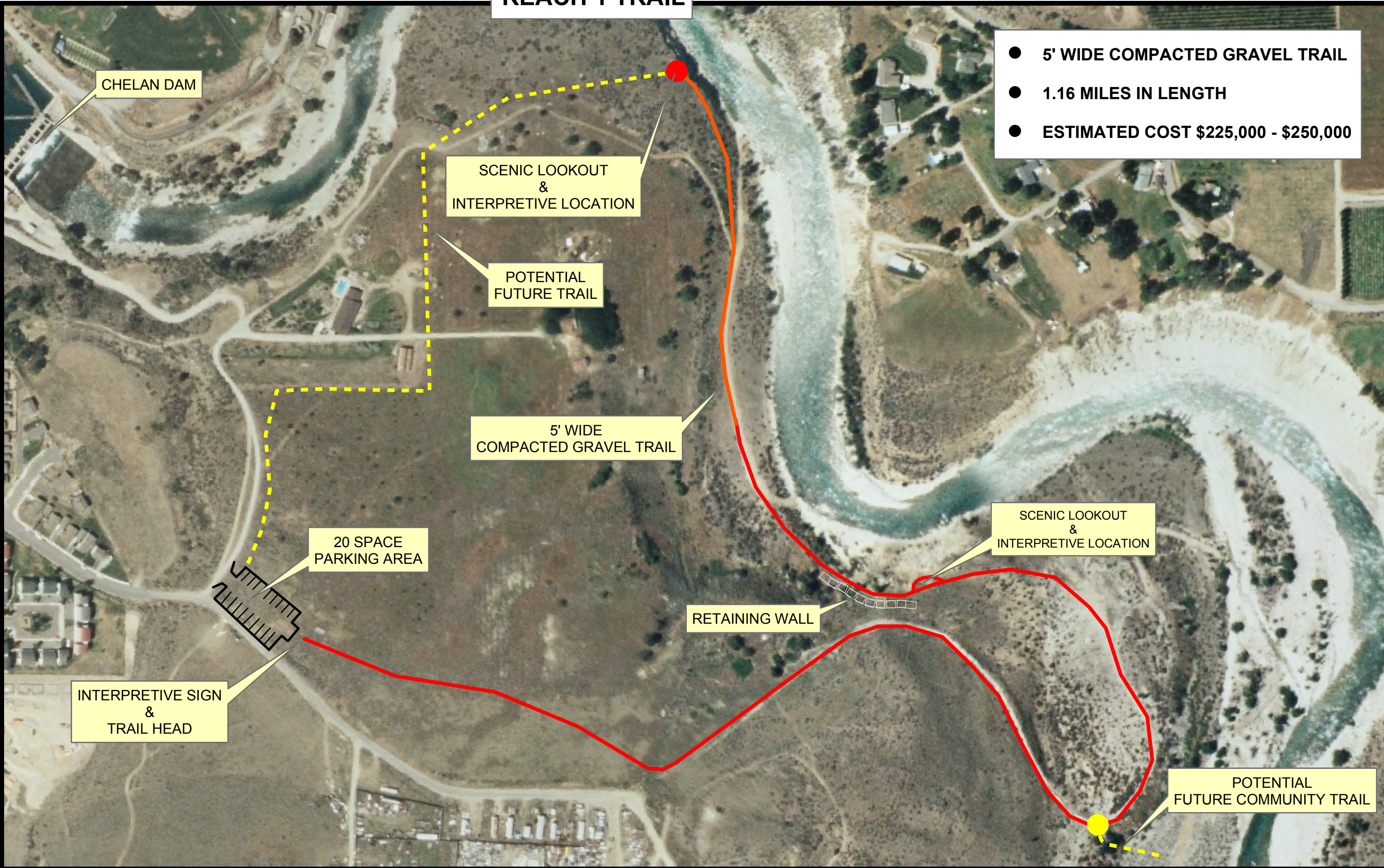
2008 *	2009	2010	2011	Time
July 12	July 11	July 10	July 9	11:00 am to 6:00 pm each day
July 13	July 12	July 11	July 10	
July 26	July 25	July 24	July 23	
July 27	July 26	July 25	July 24	Flows
September 13	September 12	September 11	September 10	
September 14	September 13	September 12	September 11	Saturdays: 300 to 375 cfs
September 27	September 26	September 25	September 24	Sundays: 400 to 450 cfs
September 28	September 27	September 26	September 25	

* Runs in 2008 are tentative, based on habitat restoration work being done in the lower reaches of the Chelan River.

APPENDIX C: REACH 1 ACCESS TRAIL

REACH 1 TRAIL

- 5' WIDE COMPACTED GRAVEL TRAIL
- 1.16 MILES IN LENGTH
- ESTIMATED COST \$225,000 - \$250,000



CHELAN DAM

SCENIC LOOKOUT & INTERPRETIVE LOCATION

POTENTIAL FUTURE TRAIL

5' WIDE COMPACTED GRAVEL TRAIL

20 SPACE PARKING AREA

SCENIC LOOKOUT & INTERPRETIVE LOCATION

RETAINING WALL

INTERPRETIVE SIGN & TRAIL HEAD

POTENTIAL FUTURE COMMUNITY TRAIL

APPENDIX D: RIVERWALK LOOP TRAIL EXTENSION

Lake Chelan Recreation Resources Management & Implementation Plan

Based on design and engineering work conducted since the license was issued, Chelan PUD has concluded that it is not feasible to place the trail (which would be in the form of an elevated boardwalk) immediately adjacent to the south shore of the Chelan River for the following reasons:

- **Public safety** – the boardwalk along the shoreline poses a safety hazard. If someone falls off of the walkway, they could be pulled towards hazardous waters directly in front of the project structures, spill gates, and low level intake (see photograph above).
- **Increased dam access restrictions since September 11, 2001** - Chelan PUD security representatives are strongly discouraging a boardwalk along the shoreline of the Chelan River. It would travel through the boat barrier and pass too close to the dam which could impact Project operations.
- **Construction Costs** – A boardwalk to accommodate this short portion of the trail is estimated to cost an additional \$555,000. Chelan PUD believes it is both unreasonable and unnecessary to accomplish the purposes of the license article.



To find an alternate route along the south shoreline of the River, Chelan PUD met with the adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The Lake Chelan Trails Committee has proposed that the trail traverse the slope about 100 feet above the south shoreline of the Chelan River. Like the initially considered route, this route would be a paved, multi-use, ADA accessible, 5 foot wide trail. Like the other route, it also provides interpretive and educational opportunities at an overlook above the dam, provides a 20 space parking lot, and connects to the Reach 1 Trail. Because the initial route involved an elevated boardwalk with a guardrail, nothing in the way of river access is lost by moving the route farther up the slope. For these reasons, Chelan PUD has revised the route as described, and believes that doing so is consistent with both the intent and purposes of the license article.

RIVERWALK LOOP TRAIL EXTENSION

- 5' WIDE PAVED TRAIL
- ADA ACCESSIBLE
- .38 MILE IN LENGTH
- ESTIMATED COST \$340,000 - \$500,000



EXISTING TRAIL CONNECTION PATH

CHELAN DAM

5' WIDE PAVED TRAIL

SCENIC LOOKOUT

INTERPRETIVE SIGN & TRAILHEAD

SCENIC LOOKOUT & INTERPRETIVE LOCATION

5' WIDE PAVED TRAIL (ADA ACCESSIBLE)

20 SPACE PARKING AREA

INTERPRETIVE SIGN & TRAIL HEAD

***APPENDIX E: SIDEWALK, HANDRAIL, AND LANDSCAPING
UNDER THE DAN GORDON BRIDGE***

Completed Repair of Sidewalk and Handrail under the Dan Gordon Bridge
Project began May 29, 2007 and was completed June 18, 2007
FERC Approval received July 9, 2007





July 5, 2007

Don Senn, Regional Administrator
Washington State Department of Transportation
North Central Region
PO Box 98
Wenatchee, WA 98807-0098

Mayor Jay Witherbee
City of Chelan
135 East Johnson Avenue
Chelan, WA 98816

Re: Sidewalk repair below the Dan Gordon Bridge 97/364 on SR 97A within the City of Chelan

This purpose of this letter is to inform you of repairs recently completed by Chelan PUD to the Chelan Riverwalk Loop Trail proximate to the Dan Gordon Bridge north abutment. The purpose and scope of the work we performed is consistent with our letter to you dated May 29, 2007.

As you are probably aware, Chelan PUD received a new 50-year license from the Federal Energy Regulatory Commission on November 6, 2006 to operate the Lake Chelan Hydroelectric Project. The Settlement Agreement and recent License Order required Chelan PUD to assume annual maintenance associated with the portion of trail under the north end of the Dan Gordon Bridge for the new license term. The trail portion connects to Chelan PUD's existing Chelan Riverwalk Park loop trail. The work includes repair of the sidewalk and replacement of the handrail under the bridge superstructure, proximate to the North abutment.

It is our understanding that the City of Chelan maintained prior control and responsibility for the sidewalk maintenance in the vicinity of the Dan Gordon Bridge on SR 97A and that there has been a history of broken irrigation lines and inadequate drainage features at this location (letter dated July 12, 1999, Ann Salay, Assistant Attorney General is attached.) It appears that inadequate drainage features have in the past created undermining of the sidewalk and that repair costs were divided between the City of Chelan and the DOT.

During our recent repair of the damaged sidewalk areas, Chelan PUD found this to be the case again. A void was found under the sidewalk (see attached photos). The void was apparently created from a 4" drain line which was apparently never run all the way to a "daylight" condition (the drain was terminated under the sidewalk). Our repair technique consisted of removing saturated non-structural fill and backfilling the entire voided area with compacted gravel and placing new concrete for the sidewalk restoration. Additionally, Chelan PUD completed replacement of 756 lineal feet of handrail below the north end of the Dan Gordon Bridge up to Sayles Street. None of the work involved any contact with or disturbance to any structural embankments and/or bridge substructure or superstructure.

In conclusion, Chelan PUD intends to continue its commitment to maintain the sidewalk, handrail, and landscaping as part of its Chelan Riverwalk Park Loop Trail under the north abutment to the Dan Gordon Bridge for the remainder of the license term (50 years). We expect you will monitor and remedy conditions or problems associated with your lands and the Dan Gordon Bridge structure and Chelan PUD does not accept any responsibility for those issues or properties.

If you have any questions or want any additional information, please let me know.

Sincerely,

Michelle Smith
Chelan County PUD
Licensing and Compliance Manager
509.661.4180
michelle.smith@chelanpud.org

Cc: Tim Larson, Chelan County PUD
Vern Chamberlain, Chelan County PUD
Kris Pomianek, Chelan County PUD

Enclosures



Damaged handrail [June 2007].



Sidewalk prior to repair [June 2007].



New handrail installation in progress [June 2007].



The voided area and ultimate limits of the repair [June 2007].



Sidewalk subgrade placement [June 2007].



Finished sidewalk and handrail placement [June 2007].



Finished sidewalk and handrail placement [June 2007].

May 29, 2007

Mayor Jay Witherbee
City of Chelan
135 East Johnson Avenue
Chelan, WA 98816

Dear Jay,

As I know you are aware Jay, we are moving along with the development of our Recreation Resources Management and Implementation Plan and really appreciate your help and support along the way.

Earlier this month you, as a member of the Recreation Resources Management Forum, received an e-mail from me, indicating that we wanted to move ahead with one portion of that plan, "sidewalk handrail and landscaping under the Dan Gordon Bridge" prior to sending in the completed plan for FERC approval. We believe that safety in this area is of great concern and before summer arrives and foot and bicycle traffic increase, we would like this work to be complete. It would include stabilizing the sidewalk and replacing the handrail along the north shore of the Chelan River under the bridge up to the street. A letter is being sent to FERC with details of the project along with an explanation as to why the work needs to be done now.

I wanted to let you know that we are moving ahead with this project as well, beginning work this week and expecting to be finished by mid-June. Vern Chamberlain, a PUD employee is the project manager and GG Richardson will be doing the actual construction. If you should have any questions or concerns, do not hesitate to let me know.

Hope Spring is going well. And, from all accounts, it appears that summer is once again going to be incredible in Chelan. I will continue to stay in touch.

Cordially,

Kris Pomianek

May 29, 2007

Don Senn, Regional Administrator
Department of Transportation
Regional Headquarters
PO Box 98
Wenatchee, WA 98807-0098

Dear Don,

I do not know if you are aware, but I am now working at Chelan PUD and have been working on the relicensing of Lake Chelan and Rocky Reach Dams. Currently, I am working on a specific project up in Chelan that I wanted to inform you about.

In November of 2006, the District received a New License for the Lake Chelan Dam from the Federal Energy Regulatory Commission (FERC). One of the requirements of the New License was to submit a detailed plan of recreational enhancements proposed as mitigation for this project within one year of receipt of the New License to FERC for approval. I am responsible for writing that plan and submitting it by November 6, 2007.

One of the proposed measures in the plan includes "sidewalk, handrail and landscaping under the Dan Gordon Bridge" in the City of Chelan. Although the FERC has asked that we submit the complete recreation plan for approval before implementation, we believe that safety in this area is of great concern and before summer arrives and foot and bicycle traffic increase, we would like this work to be finished. It would include stabilizing the sidewalk and replacing the handrail along the north shore of the Chelan River under the Dan Gordon Bridge up to the street. A letter is being sent to FERC with details of the project along with an explanation as to why the work needs to be done now.

This letter is merely to inform you of the work we will be doing. We plan to begin work this week and hope to have the project complete by mid-June. We do not intend to impact the bridge in any way with the exception of making repairs to the sidewalk and handrail underneath it. Chelan PUD employee Vern Chamberlain is the project manager and GG Richardson will be actually performing the work.

If you have any questions, do not hesitate to let me know. Hope all is well with you and your family.

Cordially,

Kris Pomianek

APPENDIX F: MICRO PARK FEASIBILITY STUDY

Feasibility Analysis

Water Street Micro Park City of Chelan

Prepared by:
Tim Larson

June 1, 2007

Purpose

The purpose of this study is to determine the feasibility of constructing a micro park at the intersection of Water Street and Terrace Avenue located in the community of Lakeside in the city of Chelan. See *Exhibit A – Location Map for the location of the subject property.*

Client

The client is the Chelan County PUD #1 (“the District”). As part of the Relicensing of the District’s Lake Chelan Hydroelectric Project, they have been directed to evaluate the feasibility of creating a micro park at the intersection of Water Street and Terrace Avenue. It is the intent of this report to fulfill this requirement. See Lake Chelan Hydroelectric Project Development and Implementation Plan Section 3.9., and License Article 407. (b).

Scope of Work

In evaluating the potential for a micro park at the above described location, various characteristics of micro parks were reviewed including minimum standards and the purpose and reason for micro parks.

The existing community park system was reviewed to determine if there was a gap or need that a micro park at the subject location would fill.

The neighborhood was evaluated including identifying specific boundaries and use types. The compatibility to the existing uses was analyzed and potential conflicts considered.

The specific site was reviewed including the topography, access and existing infrastructure.

The potential benefit was then weighed against the financial costs, political restrictions and limitations as well as neighborhood adverse impacts.

Based on this analysis the feasibility was determined and recommendations made.

Community Park System Analysis

There are numerous parks located in and around the city of Chelan, including the following community parks:

- Don Morse Park
- Chelan Riverwalk Park
- Lakeside Park

Lakeside Park is located immediately adjacent to the subject neighborhood and has the most immediate impact on the subject property. Located within easy walking distance, approximately ¼ mile west of the proposed micro park, Lakeside is a 10 acre day-use park with approximately 17,500 sq. ft. of beachfront swim area. The park offers a seasonal boat launch for motorized boats which also serves as a year-around boat launch for non-motorized boats, volleyball & basketball courts, new play equipment (for children ages 5-12), picnic tables, ADA accessible restrooms and 2-hour transient boat tie up.

This park is set up to target smaller gatherings and day-use get-togethers at the lake. The park has 97 parking stalls which includes four (4) handicapped stalls.

The park is classified by the city as a 'passive' park which stipulates no commercial uses within the park.

The park is bounded on the east by residential properties and separated by a chain link fence which surrounds the park on the east and south. The lake itself bounds the park on the north and west sides. Terrace Street is located on the south side of the park which is limited to one-way traffic traveling from west to east.

Neighborhood Description

The subject neighborhood is bounded on the south by SR-97A (Woodin Avenue), on the west by East Center Street, and on the north and east by Lake Chelan. See *Exhibit B – Neighborhood Map*. The entire neighborhood is located within the city limits of the city of Chelan and approximately 1.5 miles from downtown Chelan. The neighborhood surrounding the subject property is predominantly single family with one 10 unit motel located on the northeast corner of SR-97A and Evergreen Street.

Most of the homes were built originally in the late 20's and early 30's with fill-in construction occurring in the 50's and 60's. Most recently some of the older homes have been torn down and replaced with new construction. Views in the neighborhood vary from none to limited or sweeping views of Lake Chelan.

Many of the early vintage homes have been remodeled and are considered to be in good to excellent condition. The larger and better quality and well maintained homes are those with unobstructed views and/or waterfront or water access. The smaller and lesser quality homes and the homes that are not as well maintained are typically those that have little view, no view or an obstructed view.

There is a mix of vacation and primary residences. The vacation homes tend to see limited use during the winter with heavy use during the summer months. The neighborhood is similar to other waterfront neighborhoods in and around the Lake Chelan area. See *Exhibit C – Neighborhood Photographs*.

Water Street and Terrace Avenue are narrow roads which are not fully developed in that they have no curbs or sidewalks. In addition, the entire width of the street has not been paved to the limits of the legal right of way. The road shoulders are soft and transition into neighboring lawns on the west and south and the beachfront on the north and east.

Both roads end on beachfront, Water Street to the north and Terrace Avenue to the east.

There are four private docks located in the area described as the beachfront immediately surrounding the subject property, two on the easterly beach and two on the northerly beach. Because the majority of the construction for these docks is located on lands owned by the PUD, the docks are permitted for use by the PUD. Current PUD policy for such use allows for docks to be permitted to owners of adjacent properties. The dock permits allow for exclusive use by the dock owners. The docks are on 90-day cancelable permits which impacts the potential value to the dock owner.

The easterly beach along Water Street begins as a 10 foot rock wall (at low water) then transitions to a white sandy beach as it approaches the intersection with 97A. During the summer months there is about 45 feet of sandy beachfront. This beach acts as an informal micro park and is used by many patrons within the local community as well as those living in the immediate neighborhood. It is a nice gentle sandy beach which is attractive in the summer months to boaters, Jet Ski users, beginning swimmers and families with young children. In the low water months, of the fall and winter, the beach is used by beach comers and walkers.

Parking in the area is limited to shoulder parking and at times the area has been overrun with community members. *See Summer Parking Congestion Photograph – Exhibit D*

Site Description

The site of the proposed micro park is located on the north side of Terrance Avenue at the corner of Water Street and Terrace Avenue. *See Exhibits E & E.1 – Site Map*. The site essentially is bracketed by two existing docks, one located approximately 150 feet to the west of the intersection and the other 40 feet south of the intersection. It contains approximately 1,950 square feet of land and is triangular in shape being approximately 30 feet in depth and 100 feet in width along Terrace Avenue. Except for the beachfront, the site is essentially level and is unimproved. Power, water and sewer are all available in the street. The subject beachfront is a steep rocky bank, about 10 feet in height at low water elevation and 3 feet at high water which is 1,100 feet during the summer months. *See Exhibit F - Subject Photographs*.

Micro Alternatives

The purpose of a micro park is to accommodate a specific neighborhood and not necessarily a community. A micro park is also defined by its physical size which is always smaller than regional or community parks. Although micro parks vary in size they are typically less than one quarter of an acre.

Micro parks are limited in their functionality when compared to regional and community parks.

Physically Possible

While there are some limiting physical features to this site, it does appear to be capable of being developed. The area north and adjacent to Terrace Avenue is approximately 15 feet wide and 100 feet long.

Limited parking in this area could be accommodated but the parking would be limited to three (3) parking spaces measuring 10' x 20' in size. In addition, the area is large enough to accommodate a small park bench or a water access stairwell.

There is also adequate space to place a picnic bench. An over-the-water viewing platform with or without a swim ladder would also be possible.

Compatibility

The local community has openly opposed the creation of a micro park and has been very vocal about the lack of enforcement of the no parking restrictions on Water Street and Terrace Avenue. *See*

Community Letters – Exhibit G. The primary reason for the opposition is increased congestion in a residential neighborhood. Therefore, only a passive use that would not increase car traffic would be viewed as compatible with the existing owners in the neighborhood.

Viability Analysis and Conclusion

Of the options that could be physically located on the subject's very small site, only the options of a small bench or a swim access point would be legal. The parking option is prohibited by city ordinance and would be highly opposed by the local residents. Therefore only these two options will be discussed further.

The initial costs to create either a bench (picnic or other) or a swim access point would be relatively minor. The major concern with the swim access point is safety. This area is adjacent to a very steep rocky bank approximately 10 feet in height in low water and 3 feet in high water. The water would be difficult to access at low water and the water would be very deep at high water. This could pose a safety issue with patrons who have limited swimming abilities or other physical restrictions. This creates an inherently dangerous attraction in a residential neighborhood where children will be a probable user of the facility. The benefit of the investment is also very questionable where a beach with a gradual slope and easy access is located within 130 feet.

While the bench does not create an unsafe situation, the value of the investment is questionable recognizing the immediate proximity of a community park with superior amenities.

Therefore, while a limited micro park providing either a bench or water access could be built, there would be very little gain or benefit in recreation and the immediate community within the neighborhood, which is the target beneficiaries of a micro park, opposes the park.

Under these circumstances a micro park is not considered to be feasible for the subject location. However, alternative ideas for this area will be evaluated if presented to District staff.

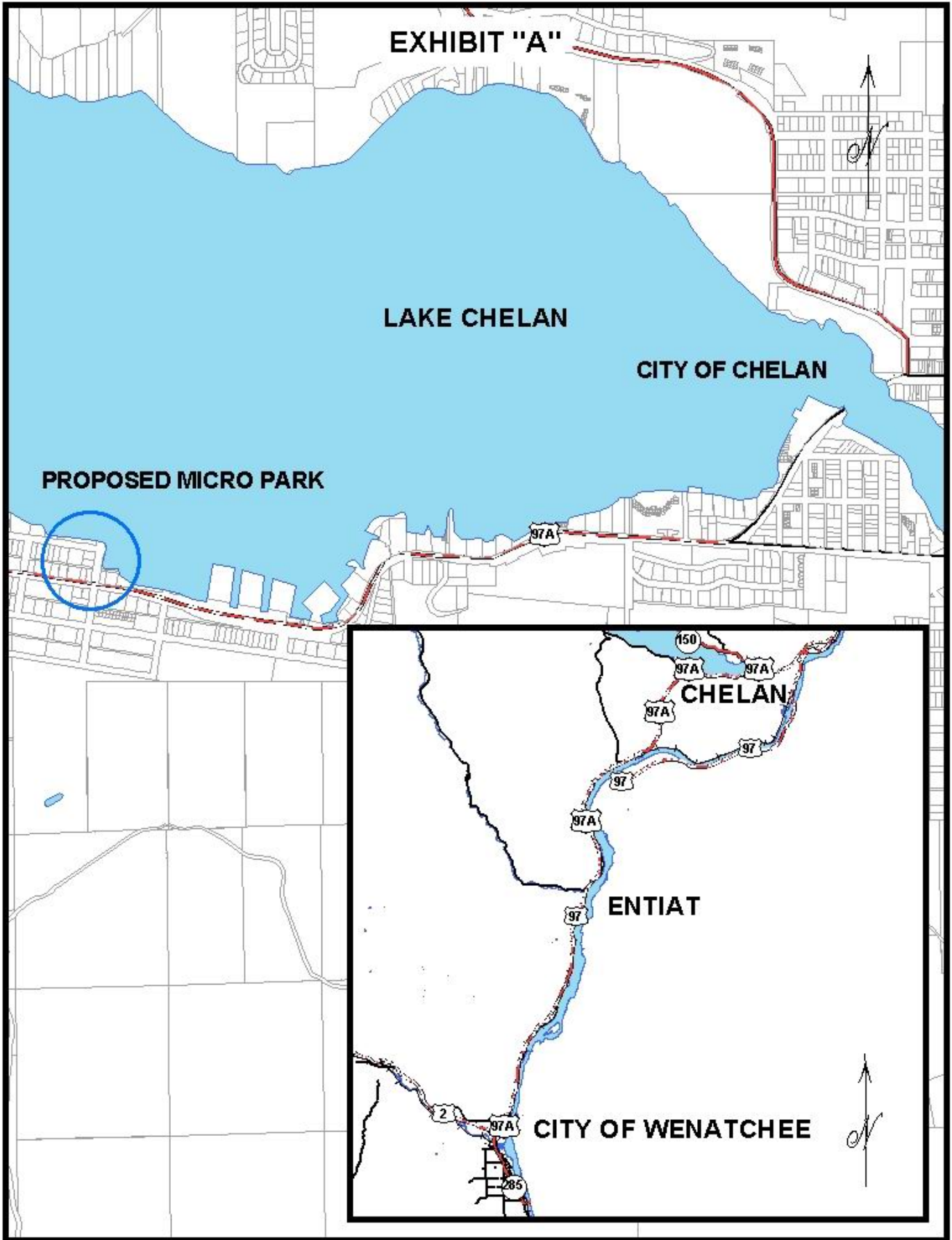


EXHIBIT 'B'

Proposed Micro Park
Neighborhood Map

Boundary 

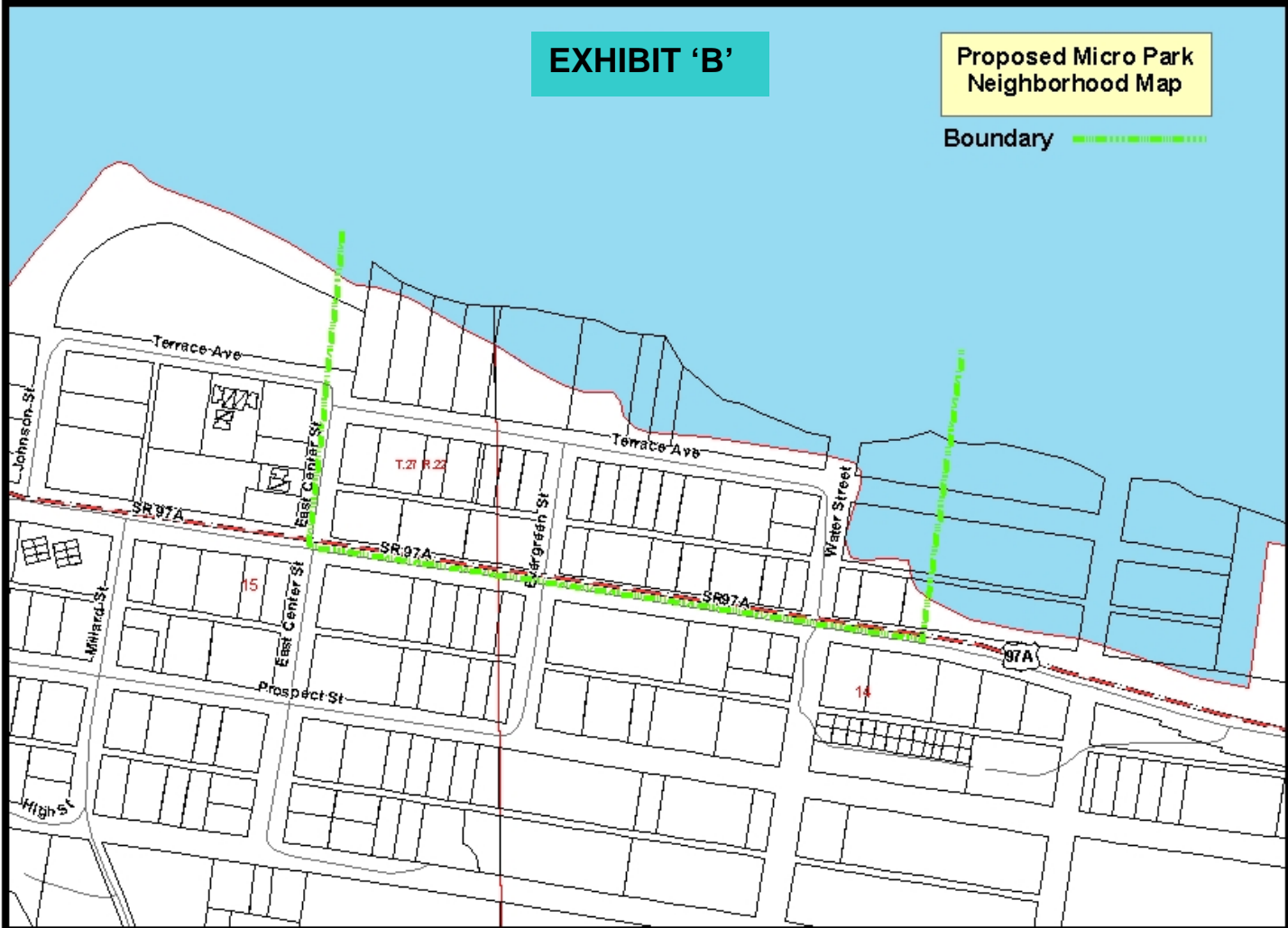


EXHIBIT 'C'



From the intersection of Terrace Avenue and Water St. looking west. Typical homes.

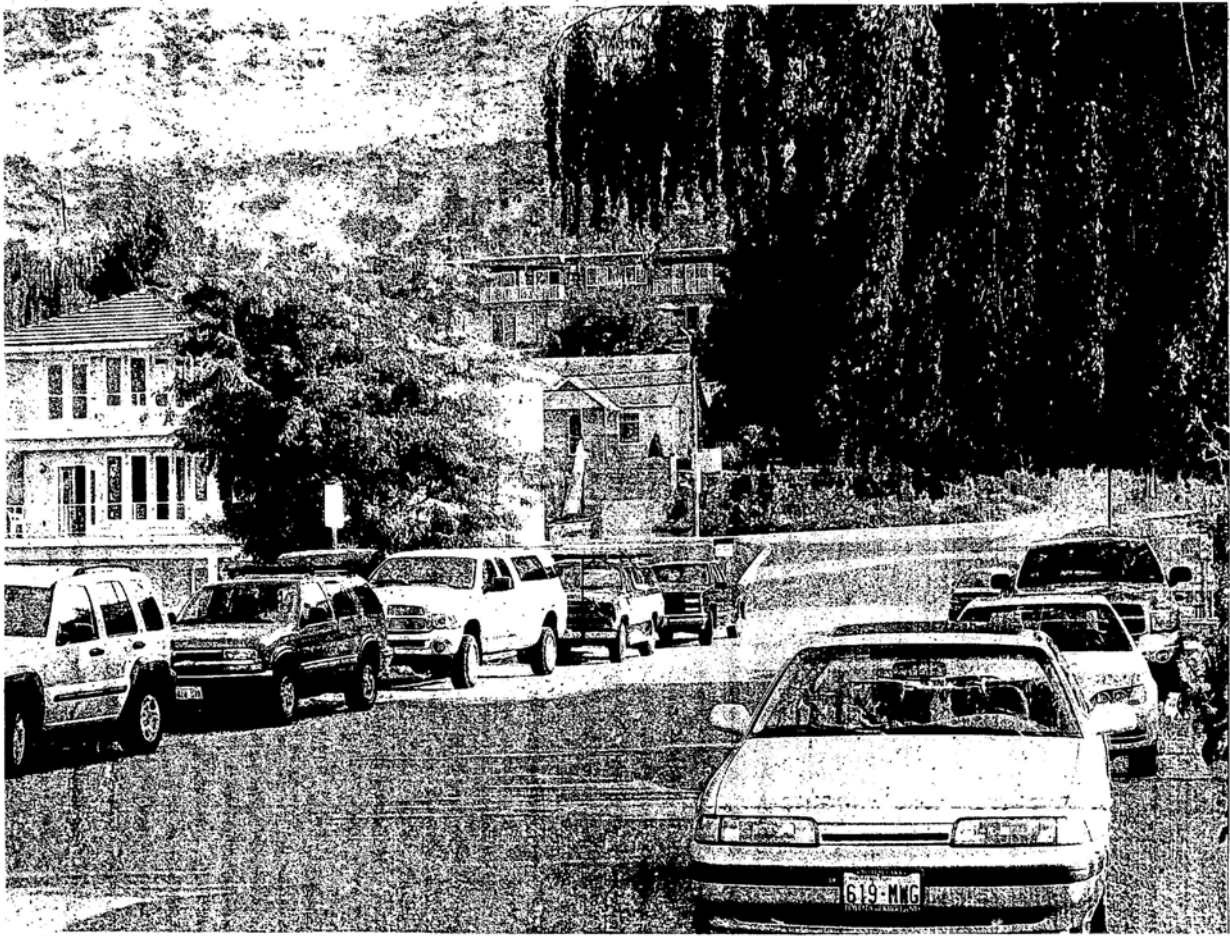


From the intersection of Water Street and Terrace Avenue looking south. A newly constructed home on the left.



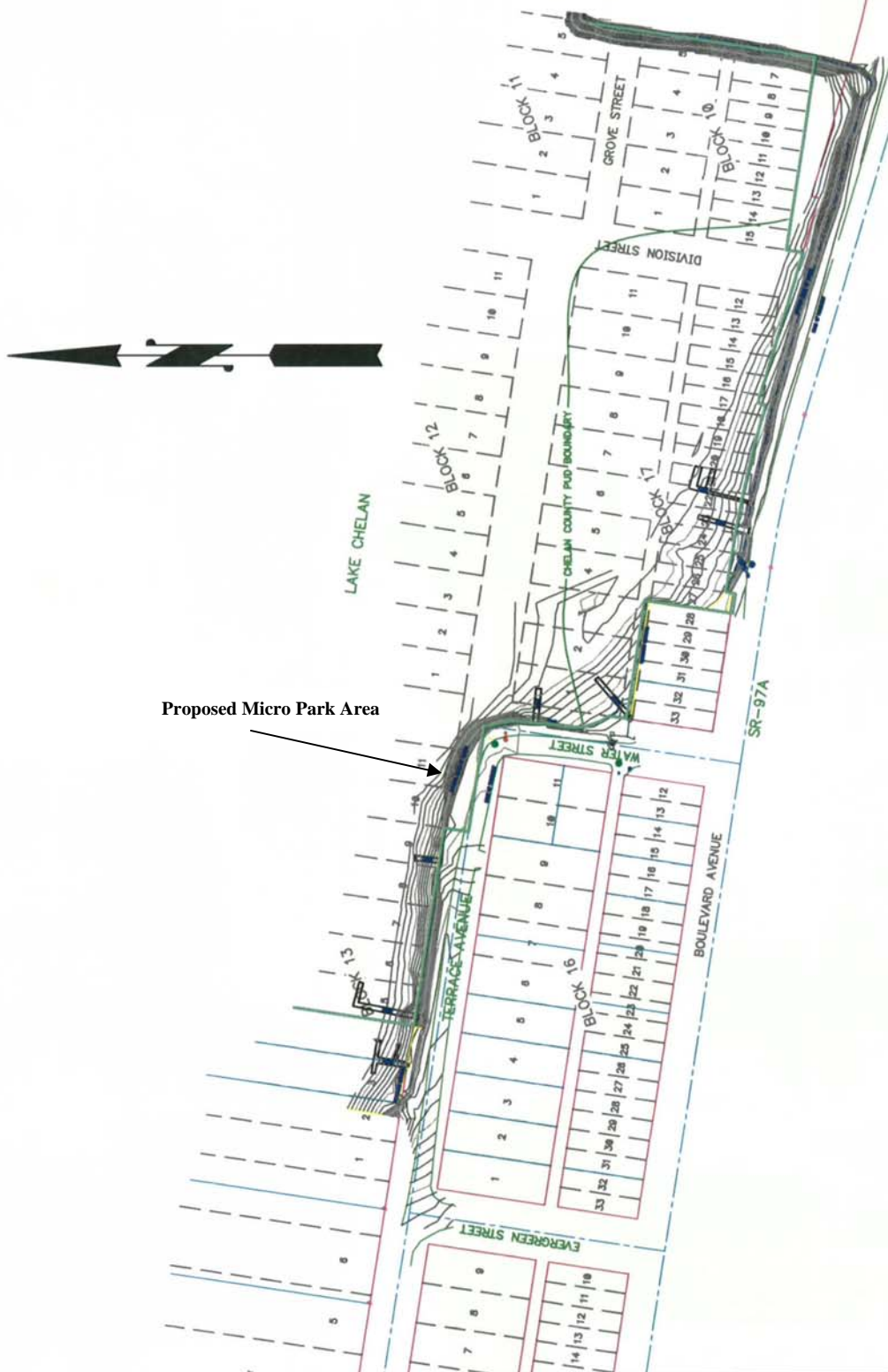
View of neighborhood homes from the alley intersection on Water St. looking west.

EXHIBIT 'D'



Peak Parking – Looking south along Water Street.

EXHIBIT 'E'



Proposed Micro Park Vicinity Map

Legend: 1" = 200' (scale)
1' contours

PUBLIC UTILITY DISTRICT No. 1 OF CHELAN COUNTY

EXHIBIT "E.1"

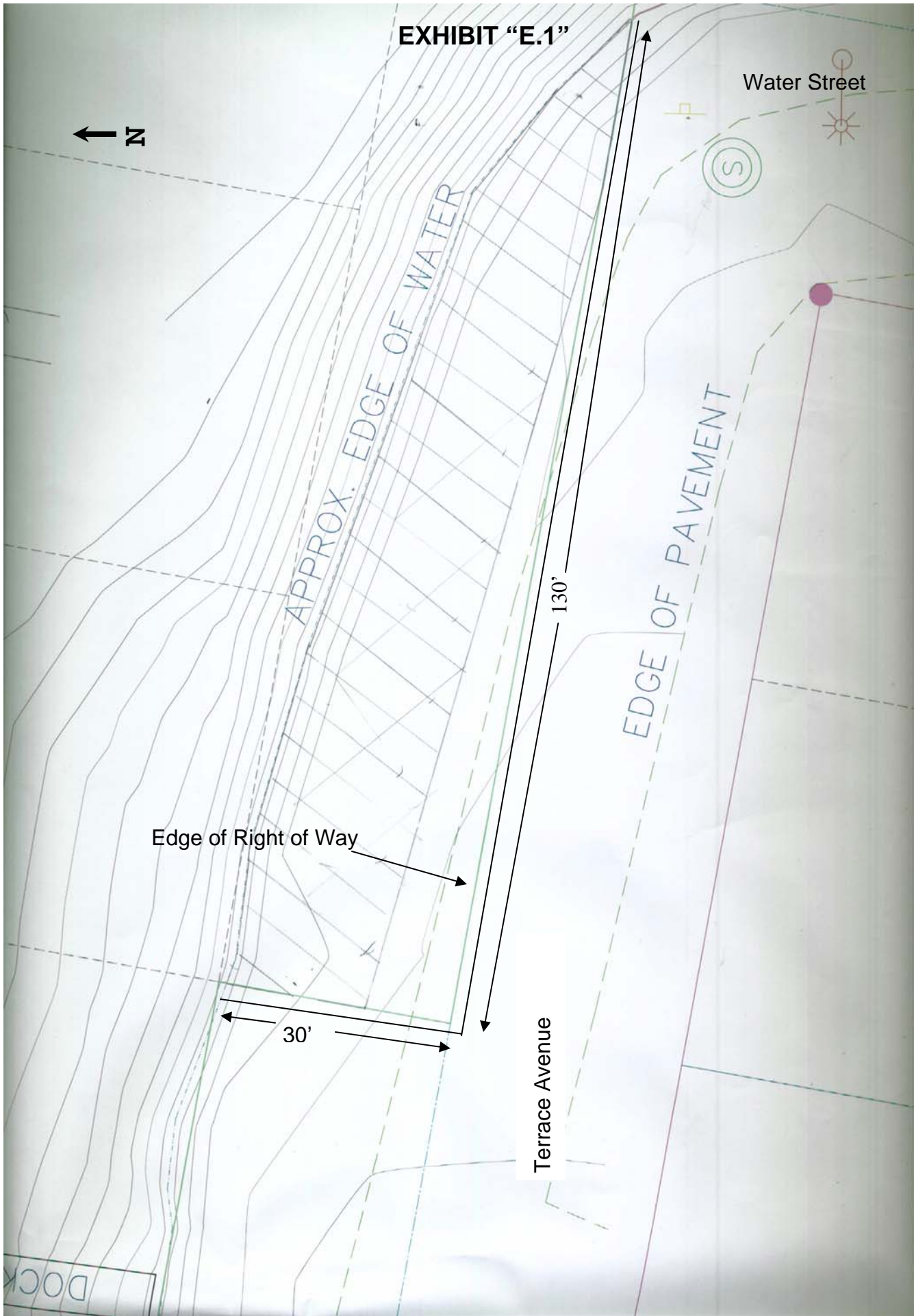


EXHIBIT 'F'



Northerly Beach area of existing informal park, view to the east



Northerly Beach area of existing informal park, view to southeast



Site of proposed micro park, view to west



Site of proposed micro park, view to northwest



Easterly beach of existing informal park, view to north



Easterly beachfront of existing informal park, view to south



Easterly beachfront of existing informal park, view to southeast



Easterly beachfront of existing informal, park view to east



Entire informal park area, view to west

EXHIBIT 'G'

Kris Poniamek
Chelan Co. PUD
PO Box 1231
Wenatchee, WA 98807

Dear Ms. Pomianek,

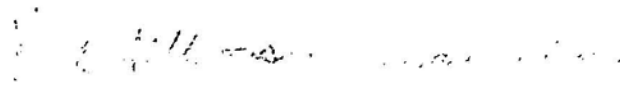
We are "snow birds" and are currently in Yuma, Arizona and unable to attend your January 26th meeting. We are mailing this letter directly to our Chelan neighbors, Scott and Connie McKellar so they can verbally present our thoughts and then hand this letter to you. FYI, we also have discussed this issue with them on the phone.

WE ARE DEFINITELY AGAINST ENLARGENING THE EXISTING NEIGHBORHOOD PARK ON WATER STREET!

Some of the reasons why we are against making this into a "Micro Park" follow:

1. **Parking:** There is already a parking problem in our neighborhood. If the existing park was to be expanded, it would attract more people and the current parking problem would become even worse.
2. **Lakeside Park Exists Nearby:** The Lakeside Park is only a couple of blocks away so to make this existing neighborhood park larger just doesn't make sense.
3. **Not Enough Room for Expansion:** There is simply not enough room to expand the existing park. We would assume that if the park was to be expanded, there would have to be restroom facilities installed at the site and we sure don't think that there is room for a structure to be built on this small site. Also, if a restroom facility was built, it would potentially block our view of the lake.
4. **Existing Park is Unique:** The existing park is very unique. Most locals are aware of this park. It is a great quiet neighborhood park for locals to come and enjoy their lake. If it is enlarged, the quiet, unique setting that it provides will be lost.
5. **Lack of Existing City Maintenance:** The local neighbors, not the City Parks Dept. employees, clean up the existing park and the litter left on the streets. If the existing park was expanded, who is going to clean up the increased mess....the PUD?.....certainly not the City because they are already stretched to maintain other larger parks and, as has been documented several times in the Mirror, the existing larger parks are deteriorating.

We enjoy seeing parents teach their young kids how to swim off the small sandy beach in the protected waters in front of our house. We enjoy seeing local Chelan folks come and go to this beach at all hours of the day. Please leave it as it is----we will continue to maintain this park with our neighbors help.


Bob & Edie Gilbertson
117 Water Street
Chelan, WA 98816

January 2, 2007

Dear Kris Pomianek,

We would like to begin this letter by saying how much we look forward to the opportunity to work with all of those involved in considering a Micro Park feasibility study on the property located next to Water Street. We very much appreciate the efforts the PUD is putting forward in taking another review of this Micro Park and soliciting involvement from all of those that are directly impacted by such a study. It is our hope this can become a win-win situation for all of those concerned. We commend the PUD for their stewardship of this property in the past and look forward to continuing a successful relationship as responsible and respectful neighbors in the future. The intent of this letter is to provide the PUD with ~~the~~ our understanding of the history of the subject property, current abuses that are taking place and provide you with a brief description of the neighborhood we live in. We hope all of this will possibly set the ground work in creating a meaningful feasibility study in response to the FERC ruling from a prospective of all those concerned.

Our understanding concerning the history of this property begins from original Plats as part of Lake Park within Okanogan County. The residential areas for this community include those portions of Water Street and Terrace Avenue that currently exist as part of the City of Chelan and previously were part of the Town of Lakeside. When the dam was originally put in around 80 years ago the city fathers of Lakeside granted public access to what was then an alley that served the residents of the community. We very much appreciate the thoughtfulness these individuals had concerning the residents of Lakeside at that time. However, over the many years that have passed this location has become a de facto park which we believe does not meet the original definition that was put forward. There is clearly a difference between "access" which provides people with temporary movement within a neighborhood as was the original declaration and a "park" which encourages extended periods of public stay which was not part of the original verbiage as defined by public access. I am sure those city leaders never foresaw the impacts when they granted this access within a residential neighborhood or they would not have burdened their citizens with the abuses that are being experienced today.

In addition, Water Street was originally 70 feet in width and provided traffic in a North/South direction for the original town. With the raising of Lake Chelan to accommodate the dam, approximately half of this street was vacated along with Terrace Avenue. However, today these streets still provides for traffic in both directions within our neighborhood to include provisions for emergency vehicles for area residents. We do not feel that Water Street can be further reduced in width or traffic flow modified without introducing a severe safety risk within the immediate area which would be unacceptable.

In regards to the current de facto park, we would like to offer some observations of abuses that are taking place concerning the property in question. These conditions continue to worsen as the population and tourism of Chelan escalates. In addition to identification of these abuses we also wish to propose possible solutions to address each of these:

1. Personal Watercraft

- a. Personal watercraft is becoming more and more common in the swimming area. As many as six to eight at a time are coming into the swim area and creating an unnecessary risk to those that swim from the beach. Today it is posted that no launching of watercraft is permitted, but no reference is made of a reasonable distance that these vehicles should be allowed from shore. It is our understanding that an ordinance is in place that prohibits watercraft such as these not be allowed within 500 yards of shore; however it is not posted or enforced.
- b. We propose that all personal water craft other than those that are permitted (permitted being defined as adjacent landowners who currently lease a dock or buoy from the PUD and their guests) be kept a minimum of 750 yards from the shoreline. We feel that this would provide for the necessary safety of those that swim in the area. We suggest that a meeting with the Sherriff's Department, the PUD and the neighborhood be held to discuss this safety issue.

2. Alcohol

- a. Alcohol is consumed in large quantities by those frequenting the area. People come to the area carrying large coolers of alcohol and continue to drink all day long. Some of these people also operate the above watercraft. This is creating a severe public risk; in addition this continuous consumption of alcohol contributes to unruly behavior where as adjacent property owners we have been put at personal risk. In addition, one of the reasons that people come to this area is to allow their children to swim in a shallow area, I do not believe that these children should be exposed to continued drunken behavior.
- b. We propose that city ordinances concerning drinking in public be enforced and not permitted on these premises. Again, this could be discussed during the meeting suggested above.

3. Parking

- a. During the peak summer season, as many as 50 – 60 or more individuals will pack into this small beach area. This contributes unnecessary congestion where people park on both sides of Water Street and Terrace Avenue. These are narrow streets to begin with and cannot accommodate additional parking which hinders the flow of traffic. Signs that are currently posted that identify parking restrictions are being ignored and not enforced which contributes to safety issues for foot traffic in the area. In addition to these parking abuses we feel that this condition may prohibit emergency vehicles that may be required for assistance by one of our neighborhood residents, thus putting those who own property in this area at an unnecessary safety risk.
- b. We propose that parking not be allowed on either side of Water Street. Or Terrace Ave. We have attached a copy of a picture depicting the frequent parking occurrences along Water Street adjacent to the proposed park.

4. Property and Personal Safety

- a. There have been many occasions where we and those visiting us have been verbally assaulted or physically threatened by those frequenting the beach area. Again, we believe a major contributor is the alcohol related issue identified earlier. However, there are no published governance concerning this property, only word of mouth that has been passed down for many years which has set unrealistic expectations of those that visit the area and creating abusive attitudes towards the residents of the neighborhood. It is imperative that people who frequent this property understand their responsibilities and the rights of adjacent property owners.
- b. We propose that governance be posted concerning this area and people are reminded of their responsibilities to be respectful of those property owners adjoining this location.

5. Trespassing on private property

- a. The residents of 104 Water Street continue to get people trespassing across their private property thinking that it is also public access. This is very frustrating and again puts them at personnel risk in dealing with intoxicated or belligerent individuals. As a good neighbor, we all take responsibilities for those people we invite to our homes and ensure that their behavior is respectful to your property, we are only asking for the same consideration to our properties from those frequenting the area that you own.
- b. We would propose the PUD work with the owners of 104 Water Street to create buffer zones between property boundaries. Today, they lease a dock which contributes to creating a buffer between one line of their property lines with the PUD and benefits them from people not trespassing that otherwise would. We would like the PUD to allow additional buffer areas for the owners of 104 Water Street where their other property lines connect

6. Hours of Operation

- a. People continue to frequent this beach at all hours of the day and night including early in the morning after the bars close. With this noise and disruption it creates quite a nuisance when people are trying to sleep and must wake up to ensure the protection of their property.
- b. We recommend that city ordinances be put in place to limit hours of use for this property.

7. Tree Infection

- a. The tree that is located on this beach is not maintained and thus attracts all sorts of insects which infect vegetation on property throughout the neighborhood. As much as we spray and maintain our vegetation because of the neglect of this tree it is a wasted effort.
- b. We would be willing to remove this tree and replace with a more suitable tree for the location.

The adjacent waterfront property owners along Woodin Street have stated: A home should be a place of refuge for its family and as such provide comfort; safety and a feeling of well being for those that live and visit there. They can honestly say there have been times where they have been held hostage on their property from the abuses that have been identified previously. It is not only us that have recognized this; other people who have frequented their homes have asked how they can tolerate such abuses and they can provide testimonies from those if you so wish. However, It is truly our belief that the PUD does not wish any harm to their neighbors so it is our hope we can work together to alleviate the threats and abuses identified above.

We would like to take this opportunity to present a brief description of our current neighborhood. Over the last several years the residents of this neighborhood have put forth much effort, time and money in improving their properties to the extent that we now believe we have the nicest area in the City of Chelan. We all enjoy each other's time and company and would resist any efforts to destroy the quiet nature of this neighborhood we have come to enjoy. The residents are a very close knit group that looks out for each other's property and well being. These are both year round and snow bird residents that have either grown up in the Chelan and surrounding areas or have been frequenting Chelan for many years. Many of the property owners are currently retired and as long time residents appreciate the slower pace this area has to offer them. Most are well known in the town of Chelan and are participants in many community events and organizations.

Given the background and information we have provided, it is our feeling that this area is too small to accommodate any Micro Park that may be proposed in a feasibility study and further it does not make any sense to exacerbate the current traffic situation or encourage more people to hang out in the middle of a quiet residential neighborhood. This is especially true when there is a large park already available (**Lakeside Park**) which is only two blocks away. Lakeside Park is 10 acres in size and has 17500 sq. ft. of beach area and provides all of the amenities required for the public, including services for the disabled. It is our belief that Lakeside Park, especially with its proximity to this proposed Micro Park is more than sufficient to serve the needs of all residents and those visiting the lakeside area for many years to come. We cannot imagine why such a proposal has been put forward for this location when the negatives clearly outweigh any positives that could be gained by such a Park. Obviously, it is clear that those that support the establishment of such a park do not live in the immediate area, since after canvassing the neighborhood we find no one who supports this proposal. Currently, I am not aware of any other Micro Park that exists or is being proposed that is outside of the business district within the City of Chelan and to place such a park in the middle of a residential neighborhood benefits no one. If there are other such parks being proposed, I am sure that they are being met with the same resistance that is being shown from our current residents. We can identify several parcels of land that is owned by the PUD or the City of Chelan that also provides public access, however this is the only one that has been identified to be made into a Micro Park. Some of these other parcels would be able to much better provide the amenities that have been identified in this letter with less impact to neighborhood residents than this small area of land, but for some reason they have been excluded from the relicensing efforts. So it is our position that there is no benefit to be realized by such providing a Micro Park at Water Street given its location, size and impacts to current residents. I believe the City of Chelan and PUD would provide a much better service to its citizens by addressing the current abuses surrounding this property and working with neighborhood residents to make it a better place for all of those concerned.

In summary, we hope that you will consider and include these concerns in any feasibility study for this property. Again, being neighboring property owners, We would hope that the PUD as well as the City of Chelan recognize the rights and privacy of its citizens and make every effort to ensure their safety and property is protected.

Again, we look forward in working with all of those involved to ensure that an amiable solution can be found.

Residents of the Water Street
and Terrace Ave, neighborhood

APPENDIX G: STAKEHOLDER CONSULTATION

Recreation Forum Agendas and Minutes

Lake Chelan Implementation Meeting Forum: Recreation Forum

Date: January 24, 2007
Time: 9:30 to 12:00
Location: Chelan County PUD Headquarters Building
Hydro Services Conference Room
2nd Floor

Call in information: Dial (509) 661-4844 to connect to the bridge. Wait for the bridge to answer the call and immediately after the beep then enter the 4000 password. As soon as you hear the high-low chime you are connected to the conference call and can begin participating.

Meeting called by: Kris Pomianek **Type of meeting:** Lake Chelan Recreation Forum

Attendees: Jay Witherbee, City of Chelan
Bill Fraser, Washington State Parks
Jim Eychaner, IAC
Jim Urness, Lake Chelan Recreation Association
Lanny Armbruster, Manson Parks and Recreation
Rich Uhlhorn, Lake Chelan Recreation Association
Tom O'Keefe, American Whitewater
Dave Fonfara, City of Chelan
Jim Harris, Washington State Parks
Joe Kastenholz, United States Forest Service
Mary Pat Scofield, Bear Mountain Ranch, Chelan
Roni Freund, Lake Chelan Tourism and Promotion Group
Greg Jones, Chelan County PUD
Michelle Smith, Chelan County PUD

Meeting Purpose: First meeting of the Lake Chelan Recreation Forum to initiate Lake Chelan license implementation.

Agenda

Tasks	Time	Discussion Lead
Welcome, introductions and agenda review	9:30 to 9:45	Kris
Review of Lake Chelan Recreation Forum process and ground rules	9:45 to 10:15	Michelle
Review of License Order	10:15 to 11:00	Kris
Review of Outline for Recreation Resources Management Plan	11:00 to 11:45	Kris
Next meeting: March 28? Location?	11:45 to 12:00	Kris
Review of first draft of recreation plan		
Updates on specific license requirements		
Other items as identified by the Forum		

Additional Information

Handouts:

Agenda

Lake Chelan Recreation Forum notebooks which include License Order, Recreation Resources Management Plan Outline, Recreation Resources Management Plan and List of Forum Members.

- Reach One Access Trail
- Riverwalk Loop Trail Extension

Next meeting is scheduled for March 28 - more information to come.

Additional Information

Handouts:

- Agenda
- List of LCRF Members
- Ground Rules
- Draft Timeline
- Draft Recreation Plan Outline
- Recreation Management Plan
- License Order

Parking Lot Items: Signage on Chelan Gorge Road

Lake Chelan Implementation Meeting Recreation Forum		Date: April 4, 2007 Time: 9:30 to 11:30 Location: Chelan County PUD Headquarters Building Hydro Services Conference Room 3rd Floor	
Call in information: Dial (509) 661-4844 to connect to the bridge. Wait for the bridge to answer the call and immediately after the beep then enter the 4000 password. As soon as you hear the high-low chime you are connected to the conference call and can begin participating.			
Meeting called by:	Kris Pomianek	Type of meeting:	<i>Lake Chelan Recreation Forum</i>
Attendees:	Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Jim Eychaner, IAC Jim Urness, Lake Chelan Recreation Association Lanny Armbruster, Manson Parks and Recreation Rich Uhlhorn, Lake Chelan Recreation Association Tom O'Keefe, American Whitewater Dave Fonfara, City of Chelan Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Mike Steele, Lake Chelan Chamber of Commerce Annelise Lesmeister, National Parks Service Keith Truscott, Chelan PUD Ray Heit, Chelan PUD Greg Jones, Chelan County PUD Michelle Smith, Chelan County PUD		
Meeting Purpose:	Second meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.		
Agenda			
Welcome, introductions, minutes and agenda review	9:30 to 9:45	Kris	
Review of 1 st draft of the Recreation Resources Management Plan	9:45 to 10:15	All	
Updates on implementation plans: <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Reach One Trail • Riverwalk Loop Trail Extension • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS 	10:15 to 11:00	Kris	
Next meeting: July 18 Review of 2 nd draft of the Recreation Resources Management Plan	11:00 to 11:15	Kris	
Additional Information			
Handouts: Agenda , 1 st Draft Recreation Resources Management Plan, Meeting Minutes – 1-24-07			

Lake Chelan Implementation Meeting Recreation Forum		Date: April 4, 2007 Time: 9:30 to 11:30 Location: Chelan County PUD Headquarters Building Board Room	
Call in information: Dial (509) 661-4844 to connect to the bridge. Wait for the bridge to answer the call and immediately after the beep then enter the 4000 password. As soon as you hear the high-low chime you are connected to the conference call and can begin participating.			
Meeting called by:	Kris Pomianek	Type of meeting:	<i>Lake Chelan Recreation Forum</i>
Attendees:	Lanny Armbruster, Manson Parks and Recreation Mike Steele, Lake Chelan Chamber of Commerce – via conference phone Annelise Lesmeister, National Parks Service Keith Truscott, Chelan County PUD Ray Heit, Chelan County PUD Michelle Smith, Chelan County PUD Greg Jones, Chelan County PUD Janel Duffy, Chelan County PUD Dave Erickson, Parks Department, City of Chelan		
Unable to Attend:	Rich Uhlhorn, Lake Chelan Recreation Association Tom O’Keefe, American Whitewater Dave Fonfara, City of Chelan Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Jim Eychaner, IAC Jim Urness, Lake Chelan Recreation Association		
Meeting Purpose:	Second meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.		
Topics		Action Items	
Review of 1 st draft of the Recreation Resources Management Plan		<ul style="list-style-type: none"> Lanny expressed concern that the dollar amount for O & M of the Parks was not in the plan. Michelle recommended that the original dollar amount outlined in the PDEA be put in the Plan. That amount is \$204,000 (2001\$). Michelle suggested re-wording “Trail Linkage to PUD Parks” to “Modifications for Future Trails” to coincide with the License wording. It was suggested that the name of the table on pages 18, 19, 20 of the Plan be renamed to say “Recreation Plan Summary per the Settlement Agreement” and that another table be created that reflects implementation. 	

<p>Updates on implementation plans:</p> <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Reach One Trail • Riverwalk Loop Trail Extension • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS 	<ul style="list-style-type: none"> • Greg Jones will work with USDA Forest Service and National Park Service to develop a system for tracking use of their recreation areas. • It was suggested that a “ten days before” deadline be put in the Whitewater Boating Monitoring Plan for sign-ups, rather than the Thursday before the event. This issue needs to be discussed with American Whitewater. • Lanny asked to be included in any trails meetings.
<p>Next meeting: July 18 Review of 2nd draft of the Recreation Resources Management Plan</p>	
<p>Parking Lot Items:</p>	

Lake Chelan Implementation Meeting Recreation Forum		Date: July 18, 2007 Time: 8:30 to 11:00 Location: Chelan County PUD Conference Room Chelan	
Meeting called by:	Kris Pomianek	Type of meeting:	<i>Lake Chelan Recreation Forum</i>
Attendees:	Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Dave Erickson, City of Chelan, Parks Department Tim Hollingsworth, Pinnacle Surveying Jim Eychaner, IAC Jim Urness, Lake Chelan Recreation Association Lanny Armbruster, Manson Parks and Recreation Rich Uhlhorn, Lake Chelan Recreation Association Tom O'Keefe, American Whitewater Dave Fonfara, City of Chelan Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Mike Steele, Lake Chelan Chamber of Commerce Annelise Lesmeister, National Parks Service Art Campbell, Campbell's Resort Keith Truscott, Chelan PUD Ray Heit, Chelan PUD Greg Jones, Chelan County PUD Michelle Smith, Chelan County PUD		
Meeting Purpose:	Third meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.		
Agenda			
Welcome, introductions, minutes and agenda review	8:30 to 8:45	Kris	
Review of 2nd draft of the Recreation Resources Management Plan	8:45 to 9:15	All	
Updates on implementation plans: <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Reach One Trail • Riverwalk Loop Trail Extension • Modifications for future trails • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS 	9:15 to 10:30	Kris	
Next meeting: September 19 Review of 3rd draft/final of the Recreation Resources Management Plan	10:30 to 11:00	Kris	
Handouts: Agenda , minutes, 2nd draft Recreation Resources Management Plan, Reach 1/Riverwalk Trail extension maps			

Lake Chelan Implementation Meeting Recreation Forum		Date: July 18, 2007 Time: 8:30 to 11:00 Location: Chelan County PUD Conference Room Chelan	
Meeting called by: Kris Pomianek		Type of meeting: <i>Lake Chelan Recreation Forum</i>	
Attendees:		Jim Urness, Lake Chelan Recreation Association Lanny Armbruster, Manson Parks and Recreation Rich Uhlhorn, Lake Chelan Recreation Association Greg Jones, Chelan County PUD Teka Parks, City of Chelan, Parks Department Karyl Oules, Community Member Scott McKellar, Water Street and Terrace Avenue	
Unable to attend:		Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Dave Erickson, City of Chelan, Parks Department Tim Hollingsworth, Pinnacle Surveying Jim Eychaner, IAC Tom O'Keefe, American Whitewater Dave Fonfara, City of Chelan Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Mike Steele, Lake Chelan Chamber of Commerce Annelise Lesmeister, National Parks Service Art Campbell, Campbell's Resort Keith Truscott, Chelan PUD Ray Heit, Chelan PUD Michelle Smith, Chelan County PUD	
Meeting Purpose:		Third meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.	
Minutes			
Review of 2nd draft of the Recreation Resources Management Plan Updates on implementation plans: <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Reach One Trail • Riverwalk Loop Trail Extension 		Kris walked the group through the 2 nd draft of the Recreation Resources Management Plan and provided updates on each one of the projects and their development: Dan Gordon Bridge Project – Due to safety reasons, Chelan PUD asked for approval from FERC to proceed with this project prior to submitting the Recreation Resources Management Plan in November. FERC granted approval and Chelan PUD completed this project in June. (details are available in Addendum E of the Recreation Resources Management Plan). Reach One Trail and Riverwalk Loop Trail Extension - These trails are still in the plan development stage. A lengthy discussion regarding the proposed routes was held. It was determined by the group that a long range trail plan be developed by the Chelan Trails Committee and that Chelan PUD will work with them to determine what part of that long range plan they will be able to develop with the \$750,000 allotted under the New License. Jim	

	<p>Urness and Rich Uhlhorn are working with the Chelan Trails Committee in the development of the long range trails plan. Kris will be meeting with this committee on Tuesday, July 24. As plans develop, updates will be sent to the LCRF for review and comment before finalization. (a map of proposed trails can be accessed on the website)</p>
<ul style="list-style-type: none"> • Modifications for future trails • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS 	<p><u>Modifications for future trails</u> is outlined on page 9 of the second draft of the Recreation Resources Management Plan.</p> <p><u>Whitewater Boating</u> – The first draft of the Whitewater Boating Monitoring Study Plan is included under Addendum B of the Recreation Resources Management Plan. The following issues need to still be evaluated:</p> <ol style="list-style-type: none"> 1. Will there be anything done about the spectators? 2. Could we change the reservation time to 10 days rather than the 3 days outlined in the plan? 3. Should kayak criteria (hard shelled kayaks required) be put in the criteria? Who will decide if this is a hard shelled kayak? 4. What part in this process – day of - will American Whitewater play? They have more expertise than anyone at the PUD. 5. Should City of Chelan be added as an additional insured on an insurance policy? 6. On the pre-survey, should novice, intermediate and advanced be removed from the survey since we are encouraging only experts to be participating? 7. Who will determine whether a person is capable of participating or not? 8. More “logistics” on the day of the event need to be discussed with American Whitewater. <p><u>Micro Park</u> – The feasibility study that was done on Water Street and Terrace Avenue in relation to the development of a micro park in this area is included under Addendum F. Rich and Jim expressed concerns about the outcome of the feasibility study. Scott McKellar, resident in this area, will talk with them outside the LCRF.</p> <p><u>Agreements with NPS and USDA-FS</u> – FERC has asked that these agreements be pulled from the Recreation Resources Management Plan and be handled separately as payment agreements. Additional information regarding these agreements can be obtained by contacting Janel Duffy at Chelan PUD, 661-4400 or janel.duffy@chelanpud.org.</p>
<p><u>Next Meeting:</u></p> <p style="padding-left: 40px;">September 19 Chelan PUD offices, Chelan 8:30 to 11:30</p>	
<p>Website: Minutes, 2nd draft Recreation Resources Management Plan, Reach 1/Riverwalk Trail extension map</p>	

Lake Chelan Implementation Meeting Recreation Forum		Date: September 19, 2007 Time: 8:30 to 11:00 Location: Chelan County PUD Conference Room Chelan	
Meeting called by: Kris Pomianek		Type of meeting: <i>Lake Chelan Recreation Forum</i>	
Attendees:	Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Dave Erickson, City of Chelan, Parks Department Tim Hollingsworth, Pinnacle Surveying Jim Eychaner, IAC Jim Urness, Lake Chelan Recreation Association Lanny Armbruster, Manson Parks and Recreation Rich Uhlhorn, Lake Chelan Recreation Association Tom O'Keefe, American Whitewater Dave Fonfara, City of Chelan Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Mike Steele, Lake Chelan Chamber of Commerce Annelise Lesmeister, National Parks Service Art Campbell, Campbell's Resort Keith Truscott, Chelan PUD Ray Heit, Chelan PUD Greg Jones, Chelan County PUD Michelle Smith, Chelan County PUD		
Meeting Purpose:	Fourth meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.		
Agenda			
Welcome, introductions, minutes and agenda review	8:30 to 8:45	Kris Michelle	
Review Final of the Recreation Resources Management Plan	8:45 to 9:15	All	
Updates on implementation plans: <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Reach One Trail • Riverwalk Loop Trail Extension • Modifications for future trails • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS 	9:15 to 10:30	Kris	
Review of Dispute Resolution 30 day comment period – September 19 – October 19 Final Recreation Resources Management Plan to be submitted to FERC on November 1.	10:30 to 11:00	Kris	
Handouts: Agenda , minutes, Final Recreation Resources Management Plan, Reach 1/Riverwalk Trail extension maps			

Lake Chelan Implementation Meeting Recreation Forum		Date: September 19, 2007 Time: 8:30 to 12:30 Location: Chelan County PUD Conference Room Chelan	
Meeting called by: Kris Pomianek		Type of meeting: <i>Lake Chelan Recreation Forum</i>	
Those attending:	<p>Tim Hollingsworth, Pinnacle Surveying Jim Urness, Lake Chelan Recreation Association Lanny Armbruster, Manson Parks and Recreation Rich Uhlhorn, Lake Chelan Recreation Association Dave Fonfara, City of Chelan Mike Steele, Lake Chelan Chamber of Commerce Annelise Lesmeister, National Parks Service Art Campbell, Campbell's Resort Ray Heit, Chelan PUD Michelle Smith, Chelan County PUD Bernice Bernatz, Community Member Bob Eier, Community Member Mike Sherer, Lake Chelan Community Foundation Scott McKellar, Resident of Water Street and Terrace Avenue Jenae Miller, Community Member Duane Baker, Resident of Water Street and Terrace Avenue Dennis Bolz, Chelan County PUD Commissioner Jon McCreary, Developer</p>		
Unable to attend:	<p>Jay Witherbee, City of Chelan Bill Fraser, Washington State Parks Dave Erickson, City of Chelan, Parks Department Jim Eychaner, IAC Tom O'Keefe, American Whitewater Jim Harris, Washington State Parks Joe Kastenholz, USDA-FS Mary Pat Scofield, Bear Mountain Ranch, Chelan Roni Freund, Lake Chelan Tourism and Promotion Group Chris Totten, Fluid Adventures Keith Truscott, Chelan PUD Greg Jones, Chelan County PUD</p>		
Meeting Purpose:	Fourth meeting of the <i>Lake Chelan Recreation Forum</i> to continue discussions on Lake Chelan license implementation.		
Minutes			
Welcome, introductions, minutes and agenda review			
Review Final of the Recreation Resources Management Plan			

<p>Updates on implementation plans:</p> <ul style="list-style-type: none"> • Dan Gordon Bridge Project • Whitewater Boating • Micro Park • Agreements with NPS and USDA-FS • Reach One Trail • Riverwalk Loop Trail Extension 	<p><u>Dan Gordon Bridge Project:</u> This project entailed the repair of sidewalk and handrail under the Dan Gordon Bridge. Chelan PUD explained this project to FERC and requested early implementation due to safety concerns. This project began May 29, 2007 and was completed on June 18, 2007. Final approval was received from FERC on July 9, 2007.</p> <p><u>Whitewater Boating:</u> The Whitewater Boating Monitoring Study Plan was reviewed. The plan is complete including sections that outline the description of the Chelan River, International Scale of River Difficulty, and plans for the day of the event. In addition, addendum sections include the application, web page, survey instrument, boater liability waiver form and annual schedule.</p> <p><u>Micro Park:</u> The Feasibility Study that was conducted on Water Street and Terrace Avenue on the land owned by Chelan PUD, was discussed. The results of the study indicated that there is not enough space on PUD owned lands to put a micro park. It was suggested that on page 45 of the Recreation Resources Management Plan that the last line under 4.7 be removed: <i>In addition, Chelan PUD has determined that these parcels should remain undeveloped for future project purposes.</i> Staff will take this into consideration. In addition, it was suggested that Chelan PUD work with the City of Chelan or other local stakeholders should they decide to develop trails or a park alongside the property owned by Chelan PUD.</p> <p><u>Agreements with NPS and USDA-FS:</u> Annelise Lesmeister from National Park Service was in attendance and explained that Chelan PUD will be entering into agreements with National Park Service and USDA Forest Service for money for improvements to docks and recreation areas as well as repairs to erosion sites. FERC has asked that these agreements not be part of the Recreation Resources Management Plan but be submitted under separate cover. These agreements are available for review on the Lake Chelan License Implementation website.</p> <p><u>Reach One Trail, Riverwalk Loop Trail Extension:</u> An extensive discussion followed on these two trails. Kris outlined for the group the proposed trails. The following comments were received from members of the Lake Chelan Trails Association:</p> <ul style="list-style-type: none"> • Chelan PUD should mitigate or “make up” for what the community did not get in the license order. (i.e. crossing the dam, completing the Reach 1 loop, land not deeded to the City on Water Street and Terrace Avenue). Michelle explained that the license outlines the mitigation issues that Chelan PUD will adhere to. The license does not indicate that we should mitigate for those things that FERC did not support nor for those things that we are unable to construct due to engineering concerns, i.e. unstable ground or erosion. • There was a discrepancy as to the interpretation of “along the shoreline”. Although the group would like to put a board walk over the water, security will not allow it, due to safety and security concerns. Chelan PUD is proposing a trail up above that area.
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	<ul style="list-style-type: none"> • Prefer “loop” in Reach 1. The current proposal stops at a lookout along the Chelan River. The developer of the area that is beside this trail will talk with his partners about finding ways to work together with the PUD to complete the loop. It was suggested that such plans be put in writing and submitted to Kris for PUD staff review and comment. • It was discussed that the Riverwalk Loop Trail Extension is a 5 foot wide paved trail that is ADA accessible. It is 1,999.90 feet in length and maintenance appropriated through the license is \$5,000 per year. The cost to construct this trail is \$341,000. • The Reach 1 Trail is made up of a compacted gravel surfacing and is 5 feet wide and is 6,111.57 feet in length. Maintenance appropriated through the license is \$4,500 per year. The cost to construct this trail is \$248,000. • The Lake Chelan Trails group asked also that on the Reach 1 map that “future community trail development” be indicated. • The group also asked for a copy of the cost of doing the board walk over the water along the shoreline. In addition, staff indicated that they would check with security to find out if crossing into the boat barrier area would be possible. That cost analysis and security consultation is attached with these minutes. • Michelle explained that the Settlement Agreement represents a contract – costs, scope and maintenance as agreed to by the signers of the agreement. She further explained the dispute resolution process that can be entered into by these signers. However, comment letters regarding questions or concerns can be sent in by anyone. All letters will be answered and will be sent to FERC with the Recreation Resources Management Plan and will become part of the permanent public record. • A member of the Lake Chelan Trails Association asked for a guarantee from the PUD that a primitive trail could be built further down into the gorge. Commissioner Bolz indicated that he could not commit without discussing this further with his fellow Commissioners and with staff. When a proposal is received from the Lake Chelan Trails Association regarding an additional primitive trail further down into the Gorge, it will be evaluation by staff. • Staff was asked to provide the following: <ul style="list-style-type: none"> Costs associated with shoreline trail: <ul style="list-style-type: none"> Development and O & M Costs associated with each trail by lineal foot and O&M associated with each (outlined above) • It was recommended that opportunities for utilizing volunteer help during the implementation process be evaluated.
<p><u>30 day comment period</u> Final Recreation Resources Management Plan will be submitted to FERC on November 1.</p>	<p><u>30 Day Comment Period:</u> September 19 through October 19. All comments are welcome and will be answered and become part of the Recreation Resources Management Plan that is sent to FERC and part of the permanent record.</p>
<p>Handouts: Agenda , minutes, Final Recreation Resources Management Plan, Reach 1/Riverwalk Trail extension maps</p>	

Comments Received

Lake Chelan Recreation Resources Management & Implementation Plan

The 30-day comment period on the Lake Chelan Recreation Resources Management and Implementation Plan was September 19 through October 19.

Responses were received from the following people:

Rich Uhlhorn on behalf of

- Lake Chelan Trails Committee
 - Lake Chelan Recreation Association
 - Lake Chelan Chamber of Commerce
 - Lake Chelan Tourism Promotion Group
 - Lake Chelan Recreation Development Foundation
 - Lake Chelan Recreation Forum
- City of Chelan
Art Campbell
Jim Urness
Social-Economic
Study Group

Dr. Jim Busey, Superintendent
Lake Chelan School District
PO Box 369
Chelan, WA 98816

Scott McKellar
119 Water Street
Chelan, WA 98816

Tricia Page
228 West Nixon
Chelan, WA 98816

Bob Christopher, President Board of Directors
Lake Chelan Chamber of Commerce
102 East Johnson
Chelan, WA 98816

Christopher Glasspool
chrisglasspool@yahoo.com

Robert D. Eier
1076 East Johnson
Chelan, WA 98816

Joe Kastenholz
USDA Forest Service

Summary of the Issues and Chelan PUD's Response

- 1. Mr. Uhlhorn asserts that Chelan PUD is not following the intent of License Article 407, which provides that it will design and construct a trail along the south shoreline of the Chelan River.**

License Article 407 – Article 11 (k) provides as follows:

*Beginning within one year of the effective date of the new license, Chelan PUD shall design and construct a paved trail that links Chelan PUD's existing Riverwalk Loop Trail to the Reach 1 Access Trail. Chelan PUD shall seek approval from FERC for crossing the Lake Chelan Dam, the trail design and construction shall only include a trail from Riverwalk Loop Trail **along the south shoreline of the Chelan River** to link with the Reach 1 Access Trail. Planning and development shall be conducted by Chelan, in consultation with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Riverwalk Loop Trail Extension shall not exceed \$500,000. The annual estimated cost to Chelan PUD for operation and maintenance of the trail is \$5,000 for the term of the New License.*



Chelan PUD Response:

Based on design and engineering work conducted since the license was issued, Chelan PUD has concluded that it is not feasible to place the trail (which would be in the form of an elevated boardwalk) immediately adjacent to the south shore of the Chelan River for the following reasons:

- **Public safety** – the boardwalk along the shoreline poses a safety hazard. If someone falls off of the walkway, they could be pulled towards hazardous waters directly in front of the project structures, spill gates, and low level intake (see photograph above).
- **Increased dam access restrictions since September 11, 2001** - Chelan PUD security representatives are strongly discouraging a boardwalk along the shoreline of the Chelan River. It would travel through the boat barrier and pass too close to the dam which could impact Project operations.
- **Construction Costs** – A boardwalk to accommodate this short portion of the trail is estimated to cost an additional \$555,000. Chelan PUD believes it is both unreasonable and unnecessary to accomplish the purposes of the license article.

To find an alternate route along the south shoreline of the River, Chelan PUD met with the adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The Lake Chelan Trails Committee has proposed that the trail traverse the slope about 100 feet above the south shoreline of the Chelan River. Like the initially considered route, this route would be a paved, multi-use, ADA accessible, 5 foot wide trail. Like the other route, it also provides interpretive and educational opportunities at an overlook above the dam, provides a 20 space parking lot, and connects to the Reach 1 Trail. Because the initial route involved an elevated boardwalk with a guardrail, nothing in the way of river access is lost by moving the route farther up the slope. For these reasons, Chelan PUD has revised the route as described, and believes that doing so is consistent with both the intent and purposes of the license article.

2. Mr. Uhlhorn asserts that Chelan PUD should provide a trail that is a loop, rather than a trail that travels along Reach 1 of the Chelan River, ending at an overlook.

License Article 407 – Article 11 (j) provides as follows:

Beginning within one year of the effective date of the New License, Chelan PUD shall design and construct a non-motorized, non-paved, multi-use trail below the Lake Chelan Dam in Reach 1 of the Chelan River Bypassed Reach. The trail shall provide managed access to the Chelan River and connect to the Riverwalk Loop Trail. Planning and development shall be conducted by Chelan PUD, in consultation with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Reach 1 Access Trail shall not exceed \$250,000. The annual estimated cost to Chelan PUD for operation and maintenance of the trail is \$4,500 for the term of the New License.

Chelan PUD Response:

Chelan PUD is proposing in the Recreation Plan, a non-motorized, non-paved, multi-use trail in Reach 1 of the Chelan River Bypassed Reach, providing managed access to several sections of the Chelan River. This trail will add about 1.6 miles of multi-use trail which will double the length of the existing trails and will address the need for additional trails in this area. This trail connects with the Riverwalk Loop Trail through the Riverwalk Loop Trail Extension. Chelan PUD consulted with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties throughout the development process. This trail meets the License obligation outlined in License Article 407 – Article 11 (j).

3. Mr. Uhlhorn and others assert Chelan County PUD should construct a trail further downstream into Reach 1 of the Chelan River.

Chelan PUD Response:

Chelan PUD has consistently maintained that the area downstream of the planned trail is unsafe. Chelan PUD has no obligation under the new license to construct such a trail, and does not intend to do so for the following reasons:

- There are several areas where the steepness and configuration of the slopes and the makeup of the soils make it unstable and impassable.
- Increased foot traffic would cause sloughing of sediment into the Chelan River, impacting project operations.

- Steepness of the terrain and eroding soil causes a safety hazard to people on foot.
- Because of the steep terrain, access to the Chelan River is dangerous.
- Within several hundred feet is a Chelan County access road that can easily and more safely be traveled to take people either by foot, on bicycles or in cars to the lower reaches of the river, however, once again, access to the Chelan River is limited and extremely dangerous in these areas.
- Letters from the Chelan County Sheriff's Department and the Chelan County Fire District have indicated their disapproval of any activities in the lower reaches of the Chelan River due to the extremely hazardous conditions.

4. Comments assert that Chelan PUD should be building additional trails throughout the community.

Chelan PUD Response:

Chelan PUD has no obligation under the new license to construct additional trails, but is always willing to work with the City of Chelan on future trail planning **outside the license**. We will listen to ideas and participate whenever possible.

5. Comments assert that the feasibility study for a micro park on Terrace Avenue and Water Street was somehow inadequate.

License Article 407 (b)

The plan shall contain the results of a feasibility assessment for developing a micro park at the following licensee-owned parcels near Water Street near the City of Chelan: parcel #272214662242, #272214662220, and #272214662440. The purpose of the feasibility assessment is to determine if and how a micro park can be developed and whether the lands are needed for project purposes. The feasibility assessment shall include a description of the site topography and any constraints to site development; a description of adjacent land uses; detailed recommendations for developing the site, including costs for developing the site and anticipated benefits and use of the developed site; and an implementation schedule for any development recommendations.

Chelan PUD Response:

The feasibility study was conducted in accordance with License Article 407, License Article 11 (b) including consultation with the Lake Chelan Recreation Forum.

10/19/07

Michelle Smith
Kris Pomianek
Chelan Public Utility District
P.O. Box 1231
Wenatchee, WA 98807

RE: Chelan Stakeholder Position Paper for insertion in the *Recreation Resources Management and Implementation Plan – License Article # 407*

Dear Michelle and Kris:

Included in this package is the position paper prepared at the request of the following organizations and agencies in the community of Chelan.

- Lake Chelan Trails Committee
- Lake Chelan Recreation Association
- City of Chelan
- Lake Chelan Chamber of Commerce
- Lake Chelan Tourism Promotion Group
- Lake Chelan Recreation Development Foundation
- Art Campbell, James Urness and Richard Uhlhorn as full members of the Social-Economic Study Group and the Lake Chelan Recreation Forum.

Thank you for outlining the process by which we, the stakeholders of Chelan, needed to follow to have our voices heard at the FERC level concerning our differences and concerns with the PUD's final Implementation Plan.

If there is anything else you need from us, please feel free to call and/or email.

Sincerely,



Richard Uhlhorn
(509) 682-0602
richard@richarduhlhorn.com

cc: Board chairs of above organizations.

A Position Paper

of the

Lake Chelan Community Stakeholders

For insertion in the

Public Utility District No. 1

of

Chelan County

RECREATION RESOURCES

MANAGEMENT AND

IMPLEMENTATION PLAN

LICENSE ARTICLE #407

Introduction:

The Lake Chelan Stakeholder group appreciates this opportunity to express our concerns with Chelan PUD Recreation Implementation Plan staff's reluctance to follow the Federal Energy Regulatory Commission order to consult and plan in good faith on License Article 407 settlement agreements.

Since January 24, 2007, Lake Chelan stakeholders representing the Chelan Community, the Lake Chelan Chamber of Commerce membership, the Lake Chelan Recreation Association membership, the Lake Chelan Public Trails Committee, Lake Chelan School District and concerned citizens, have met with representatives of Chelan County Public Utility District responsible for implementation of the Federal Energy Regulatory Commission (FERC) License Articles to begin planning the implementation of FERC ordered license articles for the new Lake Chelan Hydroelectric Project 50-year license.

In an effort to mitigate losses in the original settlement agreement, the Stakeholder group feels the Chelan PUD has denied due process which FERC ordered. That due process is to consult, plan and develop *"with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties."*

In its first paragraph in **Section 4: Development and Implementation Plan** (Page 39) the PUD states that it will value a high quality visitor experience, and that visitor convenience and easy access to project lands and waters will be accomplished appropriately and safely.

The Lake Chelan Valley is currently undergoing a major transition to a tourist/visitor and second home based economy and enhanced recreation opportunities are necessary to disperse recreational pursuits within the valley and close to the Community of Chelan. The PUD has an opportunity to work, within the FERC License Articles, with the local stakeholders in a positive and beneficial manner to provide quality recreational facilities.

Following are Local Stakeholder concerns with the outcome of planning within the Lake Chelan Recreation Forum.

FERC License Article 407 — Settlement Agreement 11 (k)

Beginning within one year of the effective date of the New License, Chelan PUD shall design and construct a paved trail that links Chelan PUD's existing Riverwalk Loop Trail to the Reach 1 Access Trail. Chelan PUD shall seek approval from FERC for crossing the Lake Chelan Dam as a part of the trail extension design. If FERC denies approval to cross the Lake Chelan Dam, the trail design and construction shall only include a trail from Riverwalk Loop Trail **along the south shoreline of the Chelan River** to link with the Reach 1 Access Trail. Planning and development shall be conducted by Chelan, in consultation with adjacent landowners, Chelan County, the city of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Riverwalk Loop Trail extension shall not exceed \$500,000. The annual Estimated Cost to Chelan PUD for operation and maintenance of the trail is \$5,000 for the term of the New License.

Stakeholder comments on Article 407 – Settlement Agreement 11 (k):

The mandate from FERC is quite clear: (*...along the shoreline of the Chelan River...*). The Lake Chelan Stakeholders engaged in the implementation process were quite willing to accommodate Chelan PUD to allow this trail to be built away from the south shore of the Chelan River, but because of the PUD staff's inability to mitigate the loss of being able to cross the dam and extend the Riverwalk Loop Trail, the Stakeholders are insisting that the PUD build the Loop Extension from the Chelan River Boat Launch east along the river to the Chelan Dam and the proposed Reach 1 Trail regardless of costs associated with building an over the river boardwalk.

FERC License Article 407 – Settlement Agreement Article 11 (j)

Beginning within one year of the effective date of the New License of the New License, Chelan PUD shall design and construct a non-motorized, non-paved, multi-use trail below the Lake Chelan Dam in Reach 1 of the Chelan River Bypassed Reach. The trail shall provide **managed access** to the Chelan River and connect to the Riverwalk Loop Trail. Planning and development shall be conducted by Chelan PUD, in consultation with adjacent landowners, Chelan County, the City of Chelan, the Lake Chelan Trails Committee, and other interested parties. The total capital cost to Chelan PUD for the Reach 1 Access Trail shall not exceed \$250,000. The annual Estimated Cost to Chelan PUD for operation and maintenance of the trail is \$4,500 for the term of the New License. (Appendix C).

Stakeholder comments on Article 407 – Settlement Agreement Article 11 (j):

A number of meetings with representatives of Chelan PUD and the Lake Chelan Trails Committee took place outside of the regularly scheduled Lake Chelan Recreation Forum. These meetings were the stakeholders' sincere attempt to follow FERC's order and plan a Reach 1 Access Trail with Chelan PUD staff that would accommodate the lower Lake Chelan Valley's need for public trails close to the community. Initially, Chelan PUD staff seemed very accommodating to the stakeholder wishes to mitigate the inability to cross the dam and extend the Riverwalk Trail Loop and to complete a Reach 1 Loop.

FERC has ordered that the Chelan Dam cannot be crossed. The stakeholders accept that decision. Chelan PUD says they cannot complete the original Reach 1 Loop because of erosion concerns along one section of the proposed loop. The stakeholders do not accept the PUD's position that since they cannot complete a Reach 1 Trail Loop, they have no further obligation to the Stakeholders to mitigate these losses.

The Trails Committee worked long and hard to come up with an acceptable Reach 1 Access Trail (see trail map and cost estimate) that would not only provide true managed access to the Chelan River as required by Article 11 (J), but would also provide a major catalyst for future trails within the Project Boundary and public trails on Chelan Butte adjacent to the Project Boundary. The Trails Committee even used stakeholder expertise to provide a cost estimate for the construction of the Riverwalk Loop extension and the Reach 1 Access Trail as desired by the stakeholders.

Furthermore, despite the numerous planning meetings, the Trails Committee feels that Chelan PUD has not negotiated or planned with the stakeholders in good faith. The Stakeholders have repeatedly requested a meeting with those staff members who are making decisions on what will be allowed and what won't be allowed. These requests to meet PUD staff engineers on the ground in Reach 1 and in a meeting to discuss our wishes have not happened. We have been told that "this is not a re-negotiation," and that we will get what the PUD decides to give the community when in reality the Trails Committee has only been trying to plan and help develop the Reach 1 Access Trail as ordered by FERC.

Therefore, the Chelan Stakeholder group is requesting that FERC give consideration to our concerns on the above License Articles.

***Micro Park Feasibility Study on Terrace Avenue and Water Street
License Article 407 (b)***

A feasibility study was conducted in cooperation with the City of Chelan , the people along Water Street and Terrace Avenue, community members, and the Lake Chelan Recreation Forum.

Although three micro park options were evaluated, the final recommendation was that a micro park was not considered to be feasible on the parcels owned by Chelan PUD, # 272214662242, # 2722214662229, # 272214662440. In addition, Chelan PUD has determined that these parcels should remain undeveloped for future project purposes. (Appendix F)

Stakeholder comments on License Article 407 (b):

Chelan PUD states on Page 45 of its Recreation Resources Management and Implementation Plan that it conducted a feasibility study with the City of Chelan, the residents along Water Street and Terrace Avenue, and the Lake Chelan Recreation Forum.

The Stakeholder group does not feel Chelan PUD conducted an adequate feasibility study, and its conclusions were never really discussed at the scheduled forum meetings. The Stakeholder Group views the underwater parcels of PUD land adjacent to Water Street and Terrace Avenue as important potential public access.

The City of Chelan has adopted the Lakeside Trail Plan which includes Section J on Water Street and Terrace Avenue. This section of the Lakeside Trail is adjacent to the PUD held property which makes this property even more valuable to the public for future public access. The Stakeholder group sees a number of opportunities at this location that would benefit the public at large, and since the PUD is a publicly owned Utility District, their lands belong to the people they serve.

The Stakeholder Group is requesting that Chelan PUD perform an adequate feasibility study at this location that includes consultation with the public.

License Article 407 –Settlement Agreement Article 11 (h I-9)
Whitewater Boating in the Chelan River

Stakeholder comments on the Whitewater Boating License Article

The Stakeholder group has a number of concerns with respect to whitewater boating. One of the primary concerns is the attention to Whitewater Boating on the Chelan River which was and is totally out of proportion study wise and monetarily to other recreation enhancements including trails.

The Stakeholder group does not feel Chelan PUD has sufficiently considered and/or addressed spectator safety issues in conjunction with allowing the whitewater boating activity to take place.

People will want to watch this activity and one of the benefits of having true Managed Access to Reach 1 will address many of those safety issues by allowing spectators access to the Chelan River where they would be able to safely watch the Kayakers negotiate some portions of the river.

The question of ingress and egress in Daybreak Canyon has also been raised on numerous occasions during the Relicensing process and currently in the Recreation Planning and Implementation process. A managed trail down Daybreak Canyon into the Chelan River at Entrance Exam would accomplish a number of safety issues for whitewater boating and open up a safe and easy ingress for fire and rescue crews if needed, and a safe egress out of the Chelan River for boaters who wish or decide not to kayak the Class V whitewater section of the river.

There is also a large flat area at Entrance Exam which would accommodate up to 25 to 50 spectators who want to watch the boaters enter the Class V water.

Summary:

FERC License Article 407 -- Settlement Agreement 11 (k)

- Without any concession by the PUD to replace those lost elements of the original settlement agreement, the Stakeholder Group is requesting that the PUD follow the FERC Settlement Agreement 11 (k) to the letter.

FERC License Article 407 – Settlement Agreement Article 11 (j)

- The Stakeholders feel the planning and development of a true managed access trail in Reach 1 has been subverted by the process required by FERC.

Micro Park Feasibility Study on Terrace Avenue and Water Street

License Article 407 (b)

- The Stakeholders do not feel that an adequate feasibility study was conducted on the above License Article. The stakeholders involved in the process of negotiating this article were not consulted during the PUD feasibility study. Only the residents residing in the area were consulted about this underwater public land owned by the Public Utility District, which is also adjacent to the proposed Lakeside Trail.

License Article 407 –Settlement Agreement Article 11 (h 1-9)

- Throughout the licensing process, the stakeholders voiced a number of concerns regarding the advent of whitewater boating in the Chelan River. Stakeholders do not believe the PUD has done enough to protect or offer the public (spectators) a safe venue for watching this fascinating whitewater sport, and has not planned for safe ingress/egress of fire and rescue personnel if needed. It is the stakeholders' belief that the PUD needs to recognize and plan for those needs.

Summation:

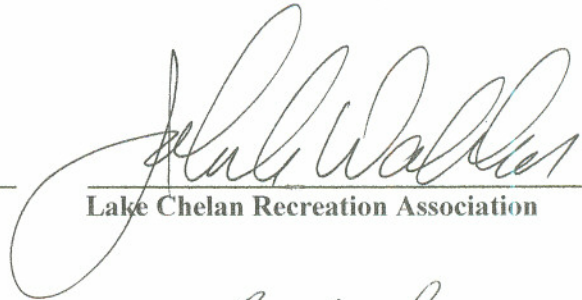
The Stakeholder Group listed below respectfully requests that Chelan PUD and FERC consider the above concerns of the Lake Chelan Stakeholder Group, Trails Committee and citizens of the valley represented by the signing parties below.

The Stakeholder group is prepared, if necessary, to pursue these concerns through the Dispute Resolution Process if required.

Endorsements:



Lake Chelan Trails Committee



Lake Chelan Recreation Association



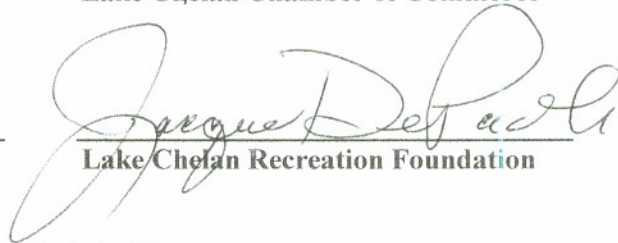
City of Chelan



Lake Chelan Chamber of Commerce



Lake Chelan Tourism Promotion Group



Lake Chelan Recreation Foundation


**Lake Chelan Hydroelectric Project Relicensing Stakeholders
Social-Economic Study Team Members**



Art Campbell, Jr.



James Urness

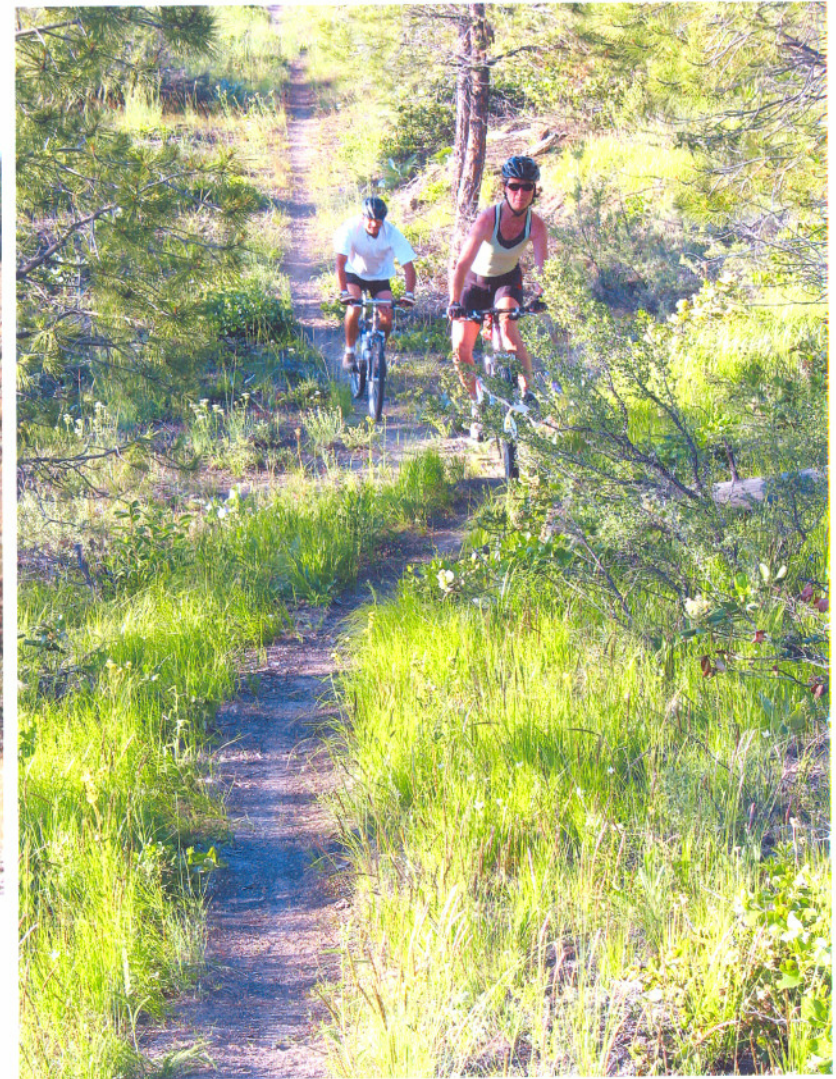


Richard Uhlhorn



Reach 1 — Chelan River

The Red oval shows the area within Reach 1 that the Chelan Trails Committee would like to construct a non-motorized, multi-use primitive trail approximately 36 inches wide using native soils. This trail proposal is within Reach 1 which is where FERC has ordered the PUD to plan and develop a rural trail. The Chelan community desperately needs public trails close to the town.



Echo Ridge Walking/Riding Trail

The Reach 1 non-motorized, non-paved, multi-use trail in Reach 1 can easily be constructed inexpensively with local stakeholder help. One local contractor has already offered to help build this trail. As envisioned, this trail does not need to be wider than 36 inches (3 feet) and can be constructed on native material like the trail in the image above. The above image was taken in the spring of 2007, fully four years after construction. There has been no need for maintenance over that period of time because it is used by hikers and mountain bikers. The lower Reach 1 managed access trail could, like the one pictured above, become a major recreation opportunity within walking or riding distance from the City of Chelan

Chelan PUD Response

A Position Paper

of the

Lake Chelan Community Stakeholders

For insertion in the

**Public Utility District No. 1
of
Chelan County**

**RECREATION RESOURCES
MANAGEMENT AND
IMPLEMENTATION PLAN**

LICENSE ARTICLE #407

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Chelan County PUD Response:

During the relicensing process, the Social Sciences Working Group agreed that a boardwalk would be evaluated, and if the cost surpassed the amount agreed upon by the settlement parties (\$500,000), that other options would be looked at. The initial estimate for the boardwalk alone was \$510,000, which did not include the connection on one end to Riverwalk Park and on the other end to the Reach 1 Trail.

In addition Chelan PUD's evaluation took into consideration the following issues surrounding the boardwalk:

- ***Public safety – The boardwalk along the shoreline could pose a safety hazard. If someone should fall off of the walkway, they could be pulled towards hazardous waters directly in front of the project structures and spill gates.***
- ***Increased restrictions since September 11, 2001 - increased dam access restrictions have been put in place since September 11, 2001. As an example, a boat barrier, placed 400 feet upstream of the dam now prevents boats from getting close to the dam. In addition, fencing along the south side of the dam is being put in place for increased security and protection as well. Because of these security issues, Chelan PUD security representatives are strongly discouraging a boardwalk along the shoreline of the Chelan River as it not only would have to go through the boat barrier, but pass close to the dam as well.***
- ***Increased cost to ongoing maintenance –An evaluation of ongoing maintenance of a boardwalk over the river substantially increases the maintenance of this structure throughout the life of the license.***

After careful evaluation of all of the above issues and discussions with the Lake Chelan Recreation Forum, the Lake Chelan Trails Committee, the Chamber and with community members, a reasonable option proposed by the Lake Chelan Trails Committee is being recommended. The proposed trail would be built on the hill overlooking the shoreline of the Chelan River and the Chelan Dam. In addition, the recommended trail is ADA accessible, allows for interpretive and educational opportunities and directly connects with the Riverwalk Loop Trail on one end and the Reach 1 Trail on the other, surpassing the intent of the license measure.

FERC License Article 407 – Settlement Agreement Article 11 (j)

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The Trails Committee worked long and hard to come up with an acceptable Reach 1 Access Trail (see trail map and cost estimate) that would not only provide true managed access to the Chelan River as required by Article 11 (J), but would also provide a major catalyst for future trails within the Project Boundary and public trails on Chelan Butte adjacent to the Project Boundary. The Trails Committee even used stakeholder expertise to provide a cost estimate for the construction of the Riverwalk Loop extension and the Reach 1 Access Trail as desired by the stakeholders.

Furthermore, despite the numerous planning meetings, the Trails Committee feels that Chelan PUD has not negotiated or planned with the stakeholders in good faith. The Stakeholders have repeatedly requested a meeting with those staff members who are making decisions on what will be allowed and what won't be allowed. These requests to meet PUD staff engineers on the ground in Reach 1 and in a meeting to discuss our wishes have not happened. We have been told that "this is not a re-negotiation," and that we will get what the PUD decides to give the community

when in reality the Trails Committee has only been trying to plan and help develop the Reach 1 Access Trail as ordered by FERC.

Therefore, the Chelan Stakeholder group is requesting that FERC give consideration to our concerns on the above License Articles.

Chelan County PUD Response:

- 1. Chelan PUD evaluated the erosion area referred to above, carefully, with 3 Chelan PUD Engineers, Bill Christman, Gene Yow and Janel Duffy. They deemed this area to be unstable, continuously eroding. Building a trail that would encourage traffic in the area could hasten the eroding process, making the bank even more unstable. This could also impact the Chelan River.***



- 2. In regard to Chelan PUD's further obligation to mitigate for not crossing the dam and not completing the Reach 1 trail loop, Chelan PUD has no requirement to further mitigate. We have an obligation to provide what is stated in the license, and that is to provide access to the Chelan River and a connection from this trail to the Riverwalk Loop Trail. It should be noted that***

no where in the license does it indicate that this trail should be a loop. When the initial “concept drawings” were sent to FERC with the Settlement Agreement, it was understood that these were only “concepts” and that further evaluation of the area would need to be done before a formal trail plan could be developed and implemented. The proposed Reach 1 trail not only provides managed access in several places along the trail to the Chelan River, but it also provides educational and interpretive opportunities for local people utilizing the trails, and for the visitors that are so important to the economy of the Chelan community. In addition, this trail provides parking that will be used in cooperation with recreational enthusiasts such as hang gliding or hikers on Chelan Butte. Again, this trail more than meets the intent of the license measure.

- 3. Our consultation records (below) indicate that the number of times that we have consulted with stakeholders is significant. In addition, per the request of the stakeholders through this consultation, we changed the route of the Riverwalk Loop Trail Extension from a trail that followed the city streets to one that travels across an undeveloped portion of PUD land above the Lake Chelan Dam to two overlooks that will allow viewing of the dam, interpretive signs and benches for resting. This portion of the trail will be ADA accessible, accommodating a broad range of tourists as well as local people who requested, during relicensing, to have a trail that would take them to viewpoints above the dam and along the river. In addition, as this trail connects to the Reach 1 Trail, and travels down next to the river, a significant amount of managed access to the Chelan River is available and has been accomplished in a safe and enjoyable environment.*

Consultation history:

Forum Meetings	4 meetings	January, April, July, September	To discuss details of the recreation plan
Meetings with smaller groups regarding trail	7 meetings	June, July, August	To discuss trail plans – ours and theirs
Informal communications via phone/ e-mail	32 times	Beginning in January to present	To discuss trail and ask for further information.
Visits to the site	5 times	April, May, June, July and August	To look at options. Met twice with Tim Hollingsworth and Ken Dull on site to discuss possible options.
Public presentations	Rotary, Chamber 2 times and 2 independent community groups	July and August	Discuss recreational issues related to license and ask for input on the trail.

Internal consultation meetings	4 formal meetings and several informal meetings	Throughout the development process	Greg Jones, Ray Heit, Steve Currit, Keith Truscott, Michelle Smith, Steve Vaughn, Bill Christman, Vern Chamberlain, Jeff Osborn, Steve Hays, Janel Duffy, Gene Yow
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Micro Park Feasibility Study on Terrace Avenue and Water Street License Article 407 (b)

A feasibility study was conducted in cooperation with the City of Chelan, the people along Water Street and Terrace Avenue, community members, and the Lake Chelan Recreation Forum.

Although three micro park options were evaluated, the final recommendation was that a micro park was not considered to be feasible on the parcels owned by Chelan PUD, # 272214662242, # 2722214662229, # 272214662440. In addition, Chelan PUD has determined that these parcels should remain undeveloped for future project purposes. (Appendix F)

Stakeholder comments on License Article 407 (b):

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The City of Chelan has adopted the Lakeside Trail Plan which includes Section J on Water Street and Terrace Avenue. This section of the Lakeside Trail is adjacent to the PUD held property which makes this property even more valuable to the public for future public access. The Stakeholder group sees a number of opportunities at this location that would benefit the public at large, and since the PUD is a publicly owned Utility District, their lands belong to the people they serve.

The Stakeholder Group is requesting that Chelan PUD perform an adequate feasibility study at this location that includes consultation with the public.

Chelan County PUD Response:

In the License Order received from FERC on November 6, 2006, it states the following:

“.....staff does not recommend developing the micro park because they are unconvinced that these facilities could be constructed considering that the majority of the property is located on a steep bank. However, we will need additional information to determine if these lands are necessary or appropriate for project purposes. As an alternative to conveying the property and funding the City’s efforts, I am requiring the licensee to file the results of a feasibility assessment for developing the micro park,

which will describe any site constraints for developing the parks as well as make recommendations for their development considering those constraints.” In addition, in a footnote, FERC indicates that “the feasibility assessment should consider existing and adjacent land uses”.

Chelan PUD conducted the feasibility according to the scope of the work as outlined by FERC in the License Order. Evaluation was done of existing and adjacent land uses, to determine if there was a gap or need that a micro park at the subject location could fill. In addition, the neighborhood was evaluated including identifying specific boundaries and use types. The compatibility to the existing uses was analyzed and potential conflicts considered. The specific site was reviewed including the topography, access and existing infrastructure. The potential benefit was then weighed against the financial costs, political restrictions and limitations as well as neighborhood adverse impacts. Details of the analysis of this area are included in the feasibility study, Attachment F in the Recreation Resources Management and Implementation Plan. Based on this analysis, a micro park is not considered to be feasible for the subject location.

License Article 407 –Settlement Agreement Article 11 (h I-9)
Whitewater Boating in the Chelan River

Stakeholder comments on the Whitewater Boating License Article

The Stakeholder group has a number of concerns with respect to whitewater boating. One of the primary concerns is the attention to Whitewater Boating on the Chelan River which was and is totally out of proportion study wise and monetarily to other recreation enhancements including trails.

The Stakeholder group does not feel Chelan PUD has sufficiently considered and/or addressed spectator safety issues in conjunction with allowing the whitewater boating activity to take place.

People will want to watch this activity and one of the benefits of having true Managed Access to Reach 1 will address many of those safety issues by allowing spectators access to the Chelan River where they would be able to safely watch the Kayakers negotiate some portions of the river.

The question of ingress and egress in Daybreak Canyon has also been raised on numerous occasions during the Relicensing process and currently in the Recreation Planning and Implementation process. A managed trail down Daybreak Canyon into the Chelan River at Entrance Exam would accomplish a number of safety issues for whitewater boating and open up a safe and easy ingress for fire and rescue crews if needed, and a safe egress out of the Chelan River for boaters who wish or decide not to kayak the Class V whitewater section of the river.

There is also a large flat area at Entrance Exam which would accommodate up to 25 to 50 spectators who want to watch the boaters enter the Class V water.

Chelan County PUD response:

We too are concerned about “spectator safety”, and we will be taking every precaution to ensure an environment of safety for all of those participants in the whitewater

boating activity as well as the spectators. We will have significant signage, close the county road, and position staff at several strategic locations along the river.

Summary

The City of Chelan, Lake Chelan Recreation Association, Lake Chelan Chamber of Commerce, Lake Chelan Trails Committee, the Lake Chelan School District and other concerned citizens respectfully request that FERC consider Chelan's concerns with the PUDs' lack of planning in good faith with its constituents.

The Stakeholder group is prepared, if needed, to pursue these concerns through the Dispute Resolution if required.

*Educational
Excellence for
Everyone*



September 18, 2007

Dear PUD Staff and Commissioners;

On behalf of the Lake Chelan School District, I am writing this letter to strongly support the local efforts to provide a quality trail system in Reach 1 of the Chelan River Gorge. This trail system, when fully developed, will greatly benefit our residents, visitors, and in particular, the students in the Lake Chelan Valley. By connecting the trail to the existing Riverwalk Loop Trail, our students and programs can better utilize our unique recreational areas in Chelan. Specifically, our science education programs can study a new ecosystem, the physical education classes and cross country teams can enjoy life long fitness and competitions, and all of us will be able to more fully benefit from the beauty of this region.

Quality trail systems are critical for life recreational and fitness activities in any community. Our valley is so fortunate to have the natural beauty, the PUD's, and community support to truly make immediate improvements in the trail system. The Lake Chelan School District supports the local efforts that have been studied and shared with the PUD commissioners, most recently by Richard Uhlhorn and Mike Sherer.

It is our hope that the Chelan County PUD staff and commissioners will work closely with our local leaders to provide immediate and comprehensive trail improvements per the recently adopted FERC guidelines. Thank you for that support.

Sincerely,

A handwritten signature in blue ink that reads "Dr. Busey". The signature is written in a cursive, flowing style.

Dr. Jim Busey, Superintendent

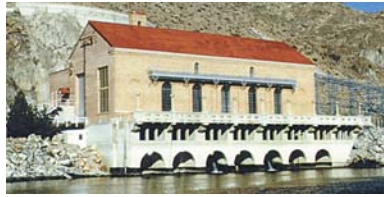
cc: PUD Commissioners
School Board of Directors
P.E. Staff

LAKE CHELAN SCHOOL DISTRICT NO. 129

P.O. Box 369 • Chelan, Washington 98816

(509) 682-3515 • www.chelanschools.org

AN AFFIRMATIVE ACTION EQUAL OPPORTUNITY EMPLOYER



PUBLIC UTILITY DISTRICT NO. 1 *of* CHELAN COUNTY

P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801
(509) 663-8121 • Toll free 1-888-663-8121 • www.chelanpud.org

October 23, 2007

Dr. Jim Busey, Superintendent
Lake Chelan School District
PO Box 369
Chelan, WA 98816-0369

Dear Dr. Busey,

I want to thank you for your letter regarding the development of a trail system in Reach 1 of the Chelan River Gorge. I am in complete agreement that this trail system would provide a wonderful benefit to local people including your students and visitors to the Chelan Valley as well.

Through the licensing process for the Lake Chelan Dam, Chelan PUD is making a great start towards the trail that you mention. We are constructing a trail that will connect the Riverwalk Loop Trail to a trail that travels down into Reach 1 of the Chelan River. This trail will accommodate a wide variety of people and offer not only educational and interpretive opportunities, but easy and safe access to the Chelan River.

You are right that this trail has many benefits and could be an excellent educational opportunity for your students and certainly could be the beginning of an extended trail system that the Chelan community might design and build in the future. I know that trails continue to be an important part of the Chelan Valley and as the city develops further trail opportunities, Chelan PUD is always willing to listen for ideas and partner when possible.

Again, let me thank you for your letter and when the new trails are built, I encourage you and your students to use them often.

Sincerely,

Kris Pomianek
Recreation Resources Administrator

Pomianek, Kris

From: smttocs@nwi.net
Sent: Monday, September 24, 2007 7:59 PM
To: Pomianek, Kris
Cc: dbakdds@nwi.net
Subject: September 19 Rec Forum Meeting---Second Thoughts Regarding Section 4.7 (Micro Park Feasibility)

Kris,

This email is a follow-up to the September 19, 2007 meeting discussion regarding the Implementation Plan Section 4.7 "Micro Park Feasibility Study on Terrace Avenue and Water Street" (page 45). I request that this email be made part of your final report to FERC if you deem this action appropriate.

In the September 19th discussion, it was agreed that some wording would be added that allowed for a potential recreation purpose in this area (specifically, a canoe dock could be constructed to allow canoeists to moor against the dock----this potential use would not require parking or access from the road and this would be a potentially viable recreational use since there is no parking available and access over the rocky slope would be unsafe). Although there was discussion about removing the last sentence..... "In addition, Chelan PUD has determined that these parcels should remain undeveloped for future project purposes"..... THE LAST SENTENCE SHOULD BE LEFT IN THIS DOCUMENT SINCE THERE STILL WOULD BE NO PARKING OR SAFE ACCESS FOR "FUTURE PROJECTS" ON THE PARCELS REFERENCED IN THIS SECTION.

If you have any questions regarding this email, feel free to give me a call 509.670.0044.

Scott McKellar
119 Water Street
Chelan, WA 98816



PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY

P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801
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October 23, 2007

Scott McKellar
119 Water Street
Chelan, WA 98816

Dear Scott,

I am putting your e-mail into the recreation plan that will be sent to FERC later this month. However, I did want to formally respond to you. You refer to a couple of things discussed at the September 19 meeting:

1. You mention that it was discussed that wording should be added to the micro park section on page 45 as suggested by Commissioner Bolz. The wording added says this:

In the future, if the City of Chelan or local stakeholders construct trails, Chelan PUD will work with them to ensure integration with PUD owned lands and trails.

So you are aware, Scott. We would always evaluate anything that the city would want to do in the area next to our property, which certainly leaves the door open to discussion, not to any final decisions.

2. Also you mentioned that there was a discussion on removing the words that this land should be held onto by Chelan PUD for future project purposes. That sentence has not been removed. Our lands and real estate department asked us not to remove it from the document.

I hope that this answers your concerns.

Again, this e-mail and response will become part of the recreation plan being submitted to FERC. Thank you for your interest throughout this process. I look forward to continuing to work with you in the future.

Cordially,

Kris Pomianek
Recreation Resources Administrator

Tricia Page
228 West Nixon
Chelan
WA, 98816

Dear Chelan PUD,

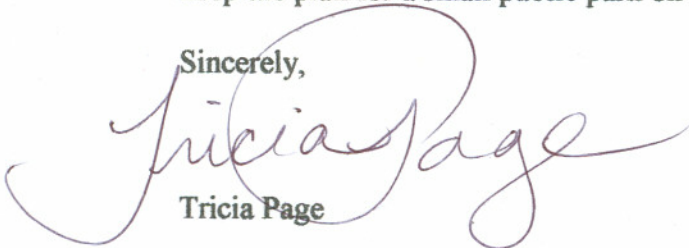
I attended the public meeting at Lakeside Park to see the route of the proposed trail along Terrace and Water Streets near the lake in Lakeside. It will be a beautiful section of the trail and provide the public access to views of the lake. With more and more development in the valley limiting public views and lake access, I believe we need to maximize the use of what is public land.

I urge the City Council to keep the proposed route of the trail along Terrace and Water Streets near the lake. I also support the request submitted to the PUD to revisit the plan to build the public park at the corner of Terrace and Water Streets. It will be a wonderful complement to the trail.

With 60 feet of public right of way along Terrace Street that belongs to the city, there should be plenty of room for trail, car lanes, and parking for the residents. The city is wanting to work with residents of those streets to provide the parking spaces that they will need. Many currently park on the public right of way.

Again, because of the beautiful lake view, I urge the City Council to keep the proposed route of the trail along Terrace and Water Streets near the lake, and the PUD to keep the plan for a small public park on that corner.

Sincerely,



Tricia Page

CHelan PUD (5715)



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October 23, 2007

Tricia Page
228 West Nixon
Chelan, WA 98816

Dear Tricia,

Thank you for your letter regarding Water Street and Terrace Avenue and I can appreciate your concerns.

Through the licensing process for Lake Chelan Dam, a feasibility study was done based on the scope of work outlined by the Federal Energy Regulatory Commission. Evaluation was done of existing and adjacent land uses, to determine if there was a gap or need that a micro park at this location could fill. In addition, the neighborhood was evaluated including identifying specific boundaries and use types. The compatibility to the existing uses was analyzed and potential conflicts considered. The specific site was reviewed including the topography, access and existing infrastructure. The potential benefit was then weighed against the adverse impacts. Based on the extensive study done, a micro park is not considered to be feasible for this location.

You did indicate in your letter however, that a significant amount of land in this area is owned by the city. In addition, I know that trails are an ever popular part of tourism development and as the city develops further plans, Chelan PUD is always willing to listen to ideas and partner when possible.

Again, thank you for your letter, Tricia.

Cordially,

Kris Pomianek
Recreation Resources Administrator

Kris Pomianek
Chelan Co. PUD
PO Box 1231
Wenatchee, WA 98807

Dear Ms. Pomianek,

On behalf of the Lake Chelan Chamber of Commerce Board of Directors, I would like to begin by saying thank you to the PUD for their work on behalf of the citizens of the Lake Chelan Valley. We have enjoyed our existing partnership with the PUD and look forward to a continued relationship as we move into the future.

Tourism is an important part of the Lake Chelan Valley economy and outdoor activities play an important role in choosing Lake Chelan as a tourist destination. Recognizing this, the Board of Directors believes it is vital to continue to enhance recreational opportunities designed to encourage more visitors. In this spirit, the Board has decided to support the position paper submitted by the Lake Chelan Trails Committee to the Federal Energy Regulatory Commission. Enhancing the existing trail system is something that needs to continue being explored. We support the suggestions offered in this paper and ask that the PUD continues its strong tradition of working with its stakeholders and communities by which they are owned, to find a reasonable solutions to the concerns voiced within this document.

Again, thank you for your efforts on our community's behalf. Please let us know if the Lake Chelan Chamber of Commerce and its membership can be of service as we move forward in this project.

Respectfully Submitted,



Bob Christopher
President, Lake Chelan Chamber of Commerce Board of Directors



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October 23, 2007

Bob Christopher, President
Lake Chelan Chamber of Commerce
Board of Directors
102 East Johnson
Chelan, WA 98816

Dear Mr. Christopher,

Thank you for your letter commenting on the Recreation Resources Management Plan. I am in agreement with you that tourism is a very important part of the Lake Chelan Valley's economic vitality and Chelan PUD welcomes the opportunity to continue to work in partnership with the chamber for years to come.

In your letter you indicated your support of the position paper submitted by the Lake Chelan Trails Committee. The committee has put together a comprehensive report and their commitment to this issue is to be commended. I have written a response to them, and would like to summarize the issues for you here for easy reference:

1. There were concerns addressed that Chelan PUD would not be building a boardwalk along the shoreline of the Chelan River. During the relicensing process, the Social Sciences Working Group agreed that a boardwalk would be evaluated, and if the cost surpassed the amount agreed upon by the settlement parties (\$500,000) that other options would be looked at. The initial estimate for the boardwalk alone was \$510,000 which did not include the connection on one end to Riverwalk Park and the other end to the Reach 1 Trail. In addition, the evaluation took into consideration public safety, increased security around the dam since September 11, 2001 and the increased cost of ongoing maintenance of a boardwalk over the water. After careful evaluation of all of these issues and discussions with the Lake Chelan Recreation Forum, the Lake Chelan Trails Committee and community members, a reasonable option proposed by the Lake Chelan Trails Committee is being recommended. The proposed trail would be built on the hill

overlooking the shoreline of the Chelan River and the Chelan Dam. In addition, the recommended trail would be ADA accessible and allow for interpretive and educational opportunities and directly connect with the Riverwalk Loop Trail on one end and the Reach 1 Trail on the other. We believe that this new trail opportunity will truly enhance a tourists experience in the Chelan Valley.

2. The second area of concern expressed in the position paper was the Reach 1 Trail. Although the trails group was hopeful that the trail could go along the edge of the Chelan River to complete a loop, an evaluation by 3 different engineers concluded that this bank was deemed unstable, continuously eroding. Building a trail that would encourage traffic in this area could hasten the eroding process, making the bank even more unstable.
3. The third issue surrounded the feasibility study done on Water Street and Terrace Avenue where a micro-park might be built. Chelan PUD conducted the feasibility study according to the scope of the work as outlined by FERC in the License Order. Evaluation was done of existing and adjacent land uses, to determine if there was a gap or need that a micro park at the subject location could fill. In addition, the neighborhood was evaluated including identifying specific boundaries and use types. The compatibility to the existing uses was analyzed and potential conflicts considered. The specific site was reviewed including the topography, access and existing infrastructure. The potential benefit was then weighed against the adverse impacts. Based on the extensive study done, a micro park is not considered to be feasible for this location.
4. Lastly, concern was expressed about “spectator safety” for Whitewater Boating. We too are concerned about “spectator safety”, and we will be taking every precaution to ensure an environment of safety for all of those participants in the whitewater boating activity as well as the spectators. We will have significant signage, close the county road, and position staff at several strategic locations along the river.

Again, let me thank you for your letter and when you mention that additional trails could be built throughout the community, we certainly concur. We are glad that through this agreement, we are able to continue the trail system that already exists in Chelan Riverwalk Park. It will now include an opportunity for tourists to venture safely down into Reach 1 and access the beautiful Chelan River. Trails are an ever popular part of tourism development and as the city develops further plans, Chelan PUD is always willing to listen to ideas and partner when possible.

Sincerely,

Kris Pomianek
Recreation Resources Administrator

From: Christopher Glasspool (chrisglasspool@yahoo.com)
To: michelle.smith@chelanpud.org
Date: Friday, October 19, 2007 10:10:58 AM
Cc: Kris Pominek
Subject: Fw: Chelan Trail Position Paper

Dear Michelle, and Kris,


PLEASE INCLUDE THIS LETTER IN WITH YOUR RECREATION RESOURCE MANAGEMENT AND IMPLEMENTATION PLAN.

Hopefully I can clarify my stance on this for you. I want as big a trail system as possible. This would include all the proposed ideas, and including the ideas set forth in the Position Insertion Paper as put forth by the Social-Economic Study Team Members, and signed on partners. I would actually like this to go further than the currently negotiated proposals and have them described as that which is done now, and have it link up and describe a future synergistic vision that encompasses walkways and trails that meet up throughout a larger area, that might include the National Park, Forest Service, City of Chelan, and private land owners. I see a visionary on going plan that would link up as funding is incorporated by the different entities including the PUD.

I would like to see the entire Chelan River opened up to the public at any time that a dangerous spill is not planned. I view this area as a public property area not unlike a National Forest or the area below high tide along the ocean shores. I see keeping it closed when no danger is present as being an overly zealous control.

Maybe I have gotten this somewhat wrong as there as been many articles and release statements on the re-licensing subject, but wasn't it released by you that FERC wouldn't allow the dam to be crossed? Isn't this FERC control coming from the Department of Homeland Security, or does the PUD's position on not crossing the dam to be one solely of financial motivation?

Please contact me with any other questions or information. Thank you for this opportunity to express my concerns.

Christopher Glasspool x 
240 Cagle Gulch Rd.
Chelan, Wash. 98816
Ph. 509/670-4912

Signed Hard Copy To follow On This Date Of October 19, 2007

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From: Christopher Glasspool [chrisglasspool@yahoo.com]
Sent: Thursday, October 18, 2007 1:33 PM
To: Pomianek, Kris
Cc: Smith, Michelle; Richard Uhlhorn
Subject: Chelan Trail Position Paper
Dear Kris Pominek, and Michelle Smith,

I have been watching the re-licensing negotiation for some time, and I fully support the position being conveyed by the Trail Committee Stakeholders Group in submitting the position paper.

I was particularly dismayed that no democratic or rational reason was given by the Department of Homeland Security to close down the trails project, and the lack of proper response by the PUD to the trails committee.

I have contacted the Honorable Senator Patty Murray to look into the specifics of the Homeland Security Edict, and apparent lop-sided negotiation that it has spurred. The Senator has contacted me to acknowledge that a liaison from the congressional office is contacting the Department of Homeland Security to investigate this matter.

I would eventually like to see the complete Chelan Gorge open once again to the public for hiking and recreating for the many hundreds of days out of the year that no dangerous spills are taking place.

Sincerely, Chris Glasspool,
240 Cagle Gulch Rd.
Chelan, Wash. 98816

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From: Christopher Glasspool [chrisglasspool@yahoo.com]
Sent: Friday, October 19, 2007 10:11 AM
To: Smith, Michelle
Cc: Pomianek, Kris
Subject: Fw: Chelan Trail Position Paper
Dear Michellle, and Kris,

PLEASE INCLUDE THIS LETTER IN WITH YOUR RECREATION RESOURCE MANAGEMENT AND IMPLEMENTATION PLAN.

Hopefully I can clarify my stance on this for you. I want as big a trail system as possible. This would include all the proposed ideas, and including the ideas set forth in the Position Insertion Paper as put forth by the Social-Economic Study Team Members, and signed on partners. I would actually like this to go further than the currently negotiated proposals and have them described as that which is done now, and have it link up and describe a future synergistic vision that encompasses walkways and trails that meet up throughout a larger area, that might include the National Park, Forest Service, City of Chelan, and private land owners. I see a visionary on going plan that would link up as funding is incorporated by the different entities including the PUD.

I would like to see the entire Chelan River opened up to the public at any time that a dangerous spill is not planned. I view this area as a public property area not unlike a National Forest or the area below high tide along the ocean shores. I see keeping it closed when no danger is present as being an overly zealous control.

Maybe I have gotten this somewhat wrong as there as been many articles and release statements on the re-licensing subject, but wasn't it released by you that FERC wouldn't allow the dam to be crossed? Isn't this FERC control coming from the Department of Homeland Security, or does the PUD's position on not crossing the dam to be one solely of financial motivation?

Please contact me with any other questions or information. Thank you for this opportunity to express my concerns.

Christopher Glasspool
240 Cagle Gulch Rd.
Chelan, Wash. 98816
Ph. 509/670-4912

Signed Hard Copy To follow On This Date Of October 19, 2007

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October 23, 2007

Christopher Glasspool
chrisglasspool@yahoo.com

Dear Mr. Glasspool,

Thank you for your letter of October 19 commenting on the Recreation Resources Management and Implementation Plan.

You may not be aware that the relicensing process for Lake Chelan Dam began over 8 years ago. At that time, the Social Sciences Working Group (the recreation planning group) along with members of the settlement group (including Art Campbell, Rich Uhlhorn, and Jim Urness from the trails committee) worked long hours to come up with the agreement reflected in the Recreation Resources Management Plan that we are recommending for implementation today.

As you may not know, the Recreation Resources Management Plan was submitted on October 8, 2003 to the Federal Energy Regulatory Commission (FERC) for review and acceptance. The recreation plan was part of a comprehensive settlement agreement that included eleven different management plans and the work of many agencies, stakeholders, the City of Chelan and community members. As a result, on November 6, 2006, Chelan PUD received a new license for the Lake Chelan Dam. At that time, FERC requested that the recreation plan be re-submitted to reflect further details including development and construction plans and an implementation schedule. Although it seems that a long time has passed since an agreement was reached, the plans that we are now developing, reflect the agreement that was negotiated and agreed upon in 2003.

You also had questions regarding crossing the dam. Since September 11, 2001, increased dam access restrictions have been put in place at all three of our dams, Rock Island, Rocky Reach and Lake Chelan. Although crossing the dam truly was a costly endeavor, it was agreed by the negotiating team in 2003 that if crossing the dam was in question due to security reasons, that a boardwalk would be considered along the shoreline and if that proved to be too costly that

an alternative route would be looked at. After discussions with the Lake Chelan Recreation Forum, the Lake Chelan Trails Committee, the Chamber of Commerce and with community members, a reasonable option was proposed by the Lake Chelan Trails Committee. The proposed trail traverses the hill overlooking the shoreline of the Chelan River and the Chelan Dam. This alternative not only fits within the scope of the license measure, but it fits within the constraints of Chelan PUD security staff as well.

You mentioned that you are hopeful that additional trails will be built throughout the community and certainly we concur. We are glad that through this agreement, we are able to continue the trail system that already exists in Chelan Riverwalk Park. It will now include an opportunity for tourists to venture safely down into Reach 1 and access the beautiful Chelan River. Trails are an ever popular part of tourism development and as the city develops further plans, Chelan PUD is always willing to listen to ideas and partner when possible.

Again, thank you Mr. Glasspool for your letter.

Sincerely,

Kris Pomianek
Recreation Resources Administrator

To: F. E. R. C. "Federal Energy Regulatory
Commission"

October 15, 2007

In the relicensing of the Lake Chelan Dam, I do not feel the management of the P. U. D. has been living up to the guidance for trail and park development require by you over this last 8 years. Personally after attending the September 19th meeting as a member of the Chelan trails committee, I felt betrayed by the P. U. D. licensing and compliance team. They seemed to represent ENRRON executives who had their pay checks and benefits at the expense of the citizen owners and users of the P. U. D. As Art Campbell stated \$750,000.00 in trail improvements is a pittance compared to the revenues the P. U. D. expects to generate over the next 50⁺ years. The wording for developing the recreational resources and management of the public land around the lake and down the Chelan river to the Columbia river by this P. U. D. team is insufficient to trust any accomplishment of additional parks or trails other than what they are proposing to complete in the next 50⁺ years.

I ask you F. E. R. C. to require the P. U. D. management to enter into compliance of allowing the recreational potential of the lake shore properties be developed into a Park in cooperation with the city of Chelan, Chelan County parks and trails systems. I ask that you mandate the P. U. D. add language to allow the whole Chelan river reach be developed for trail access in

cooperation with the city, county, state and adjacent private property owners in this new license agreement.

The P. U. D. is responsible for producing power, language for development of trails and parks can be written in cooperation with the city, county, chamber of commerce, and other community organizations such as the Chelan trails Association, the Eagles, the Grange, the Rotary Club, etc. to develop, and do maintenance and operations.

In closing my letter to this relicensing process. Please require the P. U. D. to allow development of the recreational assets to go forward for the Chelan river reach trails. Please require the P. U. D. to work with the city of Chelan and Chelan County to develop the South Shore Park and trail system now not fifty years from now.

Respectfully

Robert D. Eier

Robert D. Eier

1076 E. Johnson

Chelan, Wa. 98816

509 682 5226



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October 23, 2007

Robert D. Eier
1076 East Johnson
Chelan, WA 98816

Dear Mr. Eier,

Thank you for your letter of October 15 commenting on the Recreation Resources Management and Implementation Plan. It was good to meet you at our September 19 Lake Chelan Recreation Forum meeting and I can see that you now are beginning to understand the challenges that Chelan PUD faces in balancing the many aspects of obtaining a new license for Lake Chelan Dam while continuing to provide low cost power to all of the people who live in Chelan County.

As you learned at our meeting, the relicensing process for Lake Chelan Dam began over 8 years ago. At that time, the Social Sciences Working Group along with members of the settlement group (including Art Campbell, Rich Uhlhorn, and Jim Urness) worked long hours to come up with the agreement reflected in the Recreation Resources Management Plan that we are recommending for implementation today.

As you may not know, the Recreation Resources Management Plan was submitted on October 8, 2003 to the Federal Energy Regulatory Commission (FERC) for review and acceptance. The recreation plan was part of a comprehensive settlement agreement that included eleven different management plans and the work of many agencies, stakeholders, the City of Chelan and community members. As a result, on November 6, 2006, Chelan PUD received a new license for the Lake Chelan Dam. At that time, FERC requested that the recreation plan be re-submitted to reflect further details including development and construction plans and an implementation schedule. Although it seems that a long time has passed since an agreement was reached, the plans that we are now developing, reflect the agreement that was negotiated and agreed upon in 2003.

You mentioned that you are hopeful that additional trails will be built throughout the community and certainly we concur. We are glad that through this agreement, we are able to continue the trail system that already exists in Chelan Riverwalk Park. It will now include an opportunity for tourists to venture safely down into Reach 1 and access the beautiful Chelan River. Trails are an ever popular part of tourism development and as the city develops further plans, Chelan PUD is always willing to listen to ideas and partner when possible.

Again, thank you Mr. Eier for your letter.

Sincerely,

Kris Pomianek
Recreation Resources Administrator

JOERe A friendly reminder.txt

From: Joseph J Kastenholtz [j.kastenholtz@fs.fed.us]
Sent: Friday, October 19, 2007 9:25 AM
To: Pomi anek, Kris
Subject: Re: A friendly reminder

No Comment Kris, Good Luck, Joe

"Pomi anek, Kris"
<Kris@chelanpub.org>

10/08/2007 04:07
PM

To
"Tim Hollingsworth"
<holly@pinnacle-surveying.com>,
<director@chelanparks.com>,
<mayor@cityofchelan.com>,
<okeefe@amwhitewater.org>,
"Annelise Lesmeister"
<annelise_lesmeister@nps.gov>, "Art
Campbell"
<art@campbellsresort.com>,
<bill.fraser@parks.wa.gov>, "Chris
Totten" <info@fluidadventures.com>,
"Dave Fonfara" <dfonfara@nwi.net>,
<dbakdds@nwi.net>,
<jime@iac.wa.gov>,
<jim.harri@parks.wa.gov>,
<jamesurness@hotmail.com>,
<j.kastenholtz@fs.fed.us>, "Karyl
Oules" <karyl.o@verizon.net>,
<mansonparks@flymail.net>, "Mike
Steel" <director@lakechelan.com>,
"Richard Uhlhorn"
<richarduhlhorn@hotmail.com>,
"Scott and Connie McKellar"
<smttocs@nwi.net>, "Teka Parks"
<kartekaparks@msn.com>, "Truscott,
Keith" <Keith@chelanpub.org>,
"Heit, Ray"
<ray.heit@chelanpub.org>, "Jones,
Greg" <gregj@chelanpub.org>, "Mary
Pat Scofield" <mphs@bearmt.com>,
"Pomi anek, Kris"
<Kris@chelanpub.org>, "Roni Freund"
<roni@visitlakechelan.com>,
"Seaman, Shaun"
<shaun@chelanpub.org>, "Smith,
Michelle" <Michelle@chelanpub.org>

cc

Subject

A friendly reminder

JOERe A friendly reminder.txt

Good afternoon, everyone. I am providing a link below to the Lake Chelan Recreation Resources Management and Implementation Plan that is on the Chelan PUD website. Most of you already have a hard copy.

As we talked about at our meeting on September 19, you can comment on this document and I welcome it. You can send your comments via e-mail or through the regular mail. All comment letters should be received by Chelan PUD by Friday, October 19. I will answer all comment letters and your letter/comments will become part of the final report submitted to FERC at the first part of November.

Thank you so much for your assistance throughout this process. I will be back in touch as we move through the submittal process and then again when we receive FERC's acceptance of our plan and we formally move into implementation.

Best regards,

Kris

http://www.chelanpud.org/documents/9421_1.pdf

Kris Pomi anek
Recreation Resources Administrator
Chelan County PUD
PO Box 1231
Wenatchee, WA 98807-1231
(509) 661-4186
(509) 679-0813 (cell)