





## 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

May 1, 2012

#### VIA ELECTRONIC FILING

Honorable Kimberly D. Bose, Secretary Nathaniel J. Davis, Sr., Deputy Secretary FEDERAL ENERGY REGULATORY COMMISSION 888 First Street, NE Washington, DC 20426

Re: Lake Chelan Hydroelectric Project No. 637

License Article 407, Recreation Resources Management Plan

Whitewater Boating on the Chelan River Monitoring Study - Final Report

Dear Secretary Bose and Deputy Secretary Davis:

The Federal Energy Regulatory Commission (Commission) issued the "Order Approving Recreation Resources Management Plan under Article 407" for the Lake Chelan Hydroelectric Project (Project) on April 14, 2008. License Article 407 and Appendix A, Agreement Article 11(h)(6) requires the Public Utility District No. 1 of Chelan County, Washington (Chelan PUD or Licensee), to file a final report upon completion of the three-year whitewater boating monitoring study by May 1 of the year following completion of such monitoring study.

Chelan PUD hereby files its final report with the Commission. The final report includes, at a minimum, 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 also includes recommendations for providing whitewater releases, if any, for the remainder of the new license term. The report makes recommendations regarding, at a minimum, an annual schedule of releases (including volume and timing), a reservation system, the minimum number of boaters required to trigger a release, and a mechanism for liability protection. Chelan PUD consulted with American Whitewater and copies of comments and recommendations are included in the appendices of the report.

Chelan PUD and American Whitewater respectfully request expedited review to allow the recommended new schedule outlined in the final report to be put into effect for 2012.

Please contact me or Kris Pomianek at (509) 661-4186 regarding any questions or comments regarding this report.

Michelle Smith

Licensing & Compliance Manager

(509) 661-4180

michelle.smith@chelanpud.org

Enclosure: Final Report

# Whitewater Boating On The Chelan River 2009 - 2011 Three-Year Monitoring Study Report

## **Final**

LAKE CHELAN HYDROELECTRIC PROJECT FERC Project No. 637

May 1, 2012



Public Utility District No. 1 of Chelan County Wenatchee, Washington Prepared by Kris Pomianek

## TABLE OF CONTENTS

EXECUTIVE SUMMARY1
SECTION 1: INTRODUCTION3
SECTION 2: ANNUAL SCHEDULE3
SECTION 3: SPILL VOLUME5
SECTION 4: RESERVATION SYSTEM AND LIABILITY REQUIREMENTS6
SECTION 5: PARTICIPATION7
SECTION 6: SURVEY TOOL7
SECTION 7: EVALUATION OF SURVEY RESULTS8
SECTION 8: RECOMMENDATION FOR FUTURE WHITEWATER BOATING EVENTS
APPENDIX A: DESCRIPTION OF THE CHELAN RIVER
APPENDIX B: SURVEY RESULTS
APPENDIX C: CONSULTATION WITH AMERICAN WHITEWATER

#### EXECUTIVE SUMMARY

The Public Utility District No. 1 of Chelan County (Chelan PUD) owns and operates the Lake Chelan Hydroelectric Project, FERC No. 637, (Project) on the Chelan River in north central Washington. The Project is near the city of Chelan, in Chelan County. The Chelan River is about four miles long and extends from the dam downstream to the Columbia River. For ease of description, Chelan PUD divides the Chelan River into four sections based upon gradient, confinement, and fluvial geomorphologic characteristics (see Appendix A).

Chelan PUD operates the Project in accordance with a License issued by the Federal Energy Regulatory Commission (FERC) on November 6, 2006. As required under License Article 407, Chelan PUD submitted a recreation resources management plan (RRMP) which included a three-year whitewater boating monitoring study plan (Plan) on November 7, 2007. FERC approved the RRMP on April 14, 2008. The approved whitewater boating monitoring plan required Chelan PUD to submit annual reports to the Commission on or before June 1 for the previous year's whitewater boating monitoring study for the initial three years. In the RRMP, the first year whitewater boating release scheduled for 2008 was tentative based on habitat restoration work being done in the lower reaches of the Chelan River. Because of this habitat restoration work, it was determined that the whitewater boating study begin in 2009. On June 2, 2008, Chelan PUD requested approval from FERC of the revised schedule. On Septemer 2, 2008, FERC notified Chelan PUD that the deadline for starting the whitewater boating study was extended to July, 2009.

The Plan was developed in consultation with American Whitewater and the Lake Chelan Recreation Forum. The Plan provided for an annual schedule of whitewater releases for hardshelled kayaks in the Chelan River on the second and fourth weekends in July and September during the three-year period beginning in 2009. Kayaker surveys were required at the end of each release date to solicit input from whitewater boaters utilizing the Chelan River whitewater releases. The survey tool queried 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. A whitewater boating report was completed in consultation with American Whitewater and submitted to the FERC annually.

The first year of the whitewater boating monitoring study<sup>1</sup> was conducted in 2009 and a report was submitted to the FERC on January 8, 2010. On March 3, 2010 the FERC issued a letter accepting Chelan PUD's 2009 whitewater boating monitoring study report for the Project. The second year of the whitewater boating monitoring study<sup>2</sup> was conducted in 2010 and a report was submitted to the FERC on January 20, 2011. On January 31, 2011 the FERC issued a letter accepting Chelan PUD's 2010 whitewater boating monitoring study report for the Project, which met the requirements of Article 407.

This report meets the requirement under License Article 407 to submit a final report to FERC following the 2009-2011 three-year whitewater boating study that provides recommendations for

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<sup>&</sup>lt;sup>1</sup>See www.chelanpud.org/departments/licensingCompliance/lc\_implementation/ResourceDocuments/33796.pdf

<sup>&</sup>lt;sup>2</sup>See www.chelanpud.org/departments/licensingCompliance/lc implementation/ResourceDocuments/35876.pdf

whitewater releases, if any, for the remainder of the New License term. The report was prepared in consultation with American Whitewater and includes recommendations regarding an annual schedule of releases (including volume and timing), changes to the reservation system, the mimimum number of boaters required to trigger a release, and a mechanism for liability protection. Additionally, this final report includes information and data collected over the three year study period on the dates and volumes of each release, annual use patterns, and an analysis of user preferences based on survey data. Documentation of consultation is included in the appendices.

During settlement negotiations, Chelan PUD and American Whitewater agreed to work together to obtain legislative changes to the Washington State Recreational Use Statute that would reduce liability concerns during whitewater boating releases.

During the 2011 legislative session, representatives from Chelan PUD and American Whitewater testified on a proposed amendment to the State's Recreational Use Statute, Senate Bill 5388, which would provide liability protection for whitewater boating and viewing activities associated with FERC-issued hydroelectric projects.

The Bill passed the Senate on March 1, 2011 and the House on April 1, 2011 and was signed by the Governor on April 13, 2011. It became effective July 22, 2011, ninety days after adjournment of the session in which the bill was passed.

## **SECTION 1: INTRODUCTION**

Article 407 and Settlement Agreement Article 11(h)(1)-(9) of the License requires Chelan PUD to conduct a three-year whitewater boating monitoring study. The Plan for the whitewater boating monitoring study was approved by the FERC on April 14, 2008 and was developed in consultation with American Whitewater and the Lake Chelan Recreation Forum.

The Plan required that an annual report be developed in consultation with American Whitewater and be submitted to the FERC on or before June 1 each year. The annual report was intended to evaluate and provide for any adjustments to the flow release schedule, spill volumes, reservation, and liability requirements based on input from American Whitewater and on the evaluation of the surveys collected from participants in the previous year's study.

The whitewater boating monitoring study reports summarized and evaluated the following information:

- 1. Annual schedule
- 2. Spill volumes
- 3. Reservation system and mechanism for liability protection
- 4. Threshold number of participants and use patterns
- 5. Effectiveness of the survey tool
- 6. Survey results
- 7. Consultation with American Whitewater

The first year of the whitewater boating monitoring study was conducted in 2009 and a report submitted to the FERC on January 8, 2010. On March 3, 2010 the FERC issued a letter accepting Chelan PUD's 2009 whitewater boating monitoring study report for the Project. The second year of the whitewater boating monitoring study was conducted in 2010 and a report was submitted to the FERC on January 20, 2011. On January 31, 2011 the FERC issued a letter accepting Chelan PUD's 2010 whitewater boating monitoring study report for the Project, which met the requirements of Article 407.

#### SECTION 2: ANNUAL SCHEDULE

#### Whitewater Boating Monitoring Study Plan

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.

### July, 2011 Schedule

The 2011 whitewater boating monitoring study was scheduled for July 9, 10, 23, 24 (second and fourth weekends).

On July 1, 2011 Chelan PUD notified the FERC of a change in the schedule for the 2011 Whitewater Boating Study on the Chelan River. In coordination and discussion with American Whitewater, runs on July 9 and 10 were cancelled due to high volume runoff forecasts into Lake Chelan and potential consequential large spill volumes down the Chelan River that would exceed the maximum allowable spills for whitewater boating.

The July 23 and 24 runs on the Chelan River were cancelled by Chelan PUD in accordance with the whitewater boating plan established in the Settlement Agreement that states that water releases are made only if six or more kayakers make a reservation with Chelan PUD either inperson at Chelan PUD offices in Chelan or Wenatchee or via the Chelan PUD website, by 5:00 pm on the Thursday prior to the scheduled release date. By 5:00 pm on Thursday, July 21, five people had made a reservation, which did not meet the minimum requirement. The weekend's runs were cancelled.

### September, 2011 Schedule

The 2010 whitewater boating monitoring study was conducted on September 11, and 24, 25 (second and fourth weekends).

The September 10 run on the Chelan River was cancelled by Chelan PUD in accordance with the whitewater boating plan established in the Settlement Agreement that states that 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 by 5:00 pm on the Thursday prior to the scheduled release date. By 5:00 pm on Thursday, September 8, five people had made a reservation which did not meet the minimum requirement. Consequently, the September 10 run was cancelled.

Below is a summary of the 2009-2011 whitewater boating events including dates, participation levels and spill volumes.

	2009	2010	2011
Scheduled dates	July 11, 12, 25, 26  September runs cancelled due to stream restoration work being conducted on Reach 4 of the Chelan River	July 10, 11 – cancelled due to high volume runoff forecasts into Lake Chelan and potential consequential large spill volumes into the Chelan River that would exceed the maximum allowable spills for whitewater boating.  July 24, 25 – cancelled because the reservations did not meet the minimum number.  September 11, 12  September 25, 26	July 9, 10 – cancelled due to high volume runoff forecasts in Lake Chelan and potential consequential large spill volumes down the Chelan River.  July 23, 24 – cancelled because the reservations did not meet the minimum number.  September 10 – cancelled because the reservations did not meet the minimum number.  September 11
Spill volume (increase from 80 cfs)	Saturdays: 340, 360 Sundays: 420, 420	Saturdays: 360, 370 Sundays: 400, 410	September 24, 25 Saturday: 375 Sunday: 400
Participation	July 11 – 10 boaters July 12 – 5 boaters July 25 – 22 boaters July 26 – 23 boaters	September 11 – 10 boaters September 12 – 7 boaters September 25 – 6 boaters September 26 – 10 boaters	September 11 – 11 boaters September 24 – 7 boaters September 25 – 14 boaters
Skill level	Level V (all boaters indicated the extreme difficulty of this run at all levels of flow)	Level V+ (again, all boaters indicated the importance of the maximum level of skill and experience to complete this run at every flow level)	Level V+ (all boaters indicated the extreme difficulty of this run at all levels of flow)

## **SECTION 3: SPILL VOLUME**

Whitewater Boating Monitoring Study Plan required the release of flows in the Chelan River between 300 cfs to 375 cfs on Saturday and 400 cfs to 450 cfs on Sunday. Based on kayaker surveys and input during 2010, spill releases during the first weekend's whitewater boating study were 400 cfs on September 11.

The second weekend whitewater boating study was held on September 24 and 25. Saturday's flow was 375 cfs and Sunday's flow was 400 cfs. Adjusting the flows within the ranges agreed upon during settlement negotiations and surveying boaters at the end of the whitewater run allowed Chelan PUD and American Whitewater to determine the flows that enhanced the whitewater boating experience while accommodating the majority of boaters.

## SECTION 4: RESERVATION SYSTEM AND LIABILITY REQUIREMENTS

## Whitewater Boating Monitoring Study Plan

Water releases are made only if six or more kayakers make a reservation with Chelan PUD either in-person at Chelan PUD office in Chelan or Wenatchee or via the Chelan PUD website, www.chelanpud.org 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 on American Whitewater's or Chelan PUD's website. Each kayaker will be required to sign a liability waiver prior to launching his or her kayak in the Chelan River. Only non-motorized, hard shelled kayaks suitable for Class V whitewater will be allowed.

#### Registration

Chelan PUD created a link on its home page for registration and for information regarding every aspect of the run including a video and a link directly to American Whitewater's website for further information. Paddlers registered on line using this website. Each registration is forwarded to American Whitewater.

#### Check-in

All paddlers checked in at the registration area (Powerhouse Park) before 10:00 am each day of the event. Paddlers were given an identification badge and were required to sign a liability waiver form, if the form had not previously been received by Chelan PUD.

Paddlers left the check—in area and traveled along the Chelan River to the put-in area which allowed them the opportunity to scout the river from the road along the way. All paddlers had non-motorized, hard shelled kayaks.

#### Put-in

All kayakers put in at the designated area just below the Project dam at 11:00 am.

#### Run duration

The run from put-in to take-out took approximately 3 to 4½ hours. Boaters were asked to finish the kayaking run by 6:00 pm, although all boaters completed the run and were off the river by 3:30 pm.

## Take-out

All paddlers took out at the check-in area (Powerhouse Park) and filled out a survey.

## Washington State Recreation Use Statute

During settlement negotiations, Chelan PUD and American Whitewater agreed to work together to obtain legislative changes to the Washington State Recreational Use Statute that would reduce liability concerns during whitewater boating releases.

During the 2011 legislative session, representatives from Chelan PUD and American Whitewater testified on a proposed amendment to the State's Recreational Use Statute, Senate Bill 5388, which would provide liability protection for whitewater boating and viewing activities associated with FERC-regulated hydroelectric projects.

The Bill passed the Senate on March 1, 2011 and the House on April 1, 2011 and was signed by the Governor on April 13, 2011. It became effective ninety days after adjournment of the session in which the bill was passed, July 22, 2011.

## **SECTION 5: PARTICIPATION**

Eleven boaters participated in the whitewater boating event on the Chelan River on Septemer 11 and seven participated on September 24. Fourteen boaters participated on September 25. Overall, nineteen different boaters participated in the 2011 monitoring study, one had never participated before, seven returned from 2010, eight returned from 2009, and three participated all three years of the monitoring study.

#### SECTION 6: SURVEY TOOL

#### Whitewater Boating Monitoring Study Plan

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 the 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.

The survey tool developed in cooperation with American Whitewater, was filled out by all participants during the first two years of the monitoring study. The survey tool helped evaluate

and determine flow adjustments, timing of the event, use and understanding of the reservation system, the appropriateness of the run for each boater's level of experience, and interest in the run as an annual whitewater boating opportunity.

Chelan PUD and American Whitewater determined that a more comprehensive survey should be conducted at the end of the monitoring study. The survey tool was developed in cooperation with American Whitewater and was sent out to all paddlers who had participated in the monitoring study over the three-year period (see Appendix B).

### SECTION 7: EVALUATION OF SURVEY RESULTS

At the end of each release date, Chelan PUD solicited input from whitewater boaters utilizing the Chelan River whitewater releases. The survey tool queried 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. A whitewater boating report was completed in consultation with American Whitewater and submitted to the FERC annually.

In consultation with American Whitewater, it was determined that an on-line survey be developed to gather additional information from the 63 paddlers who had participated during the three years of the monitoring study. This information was used to evaluate future releases and to provide a final recommendation to the FERC.

A final on-line survey was sent out to all 63 paddlers who had participated in the three-year monitoring study. Of the 63 paddlers surveyed, 32 paddlers responded, 4 were returned undeliverable resulting in a 54 percent return (see Appendix B).

The following summarizes survey results:

- 1. How satisfied were you with the overall whitewater boating experience on the Chelan River? 96% were extremely satisfied or satisfied
- 2. What did you like the most?

Its uniqueness, warm water, beauty and challenge

3. What did you like the least?

The need to check-in ahead of time and the minimum requirement of 6 boaters Long flat entrance into the Gorge and rocky exit Short run

4. Do you have comments that you would like to share with us to improve this experience in the future?

No July - Yes September.

Do away with the minimum number of paddlers required.

Stress that this is a Class V run, not suitable even for Class IV

- 5. What is your preferred month for whitewater releases?

  September 23 paddlers, August 6 paddlers, July 1 paddler
- 6. Assuming two days of paddling were offered in September, what would you prefer?

One weekend both Saturday and Sunday – 19 paddlers

Two different weekends - 8 paddlers

Saturday only -2 paddlers

Sunday only – 1 paddler

7. How often would you be most likely to want to experience this run?

Every year -26 paddlers

Every other year -4 paddlers

Every three years -1 paddler

#### Additional comments include:

This was an amazing experience

Be sure and warn everyone that this is a level V experience

Please keep this experience open for kayakers

Thank you

Following completion of the three-year whitewater boating monitoring study, the final report will be submitted to the FERC that 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 include recommendations for providing whitewater releases, if any, for the remainder of the New License term. The report will make recommendations regarding, at a minimum, an annual schedule of releases (including volume and timing), a reservation system, the minimum number of boaters required to trigger a release, and a mechanism for liability protection.

# SECTION 8: RECOMMENDATION FOR FUTURE WHITEWATER BOATING EVENTS

In consultation with American Whitewater and based on the three-year whitewater boating monitoring study and kayaker survey results, Chelan PUD provides the following recommendations for providing whitewater releases on the Chelan River.

#### **Annual Schedule**

Chelan PUD recommends releasing flows annually on the third weekend in September beginning in 2012. Flows on Saturday will be 375 cfs, and flows on Sunday will be 400 cfs (within an

approximate one percent margin of instrumentation error). 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**

A minimum number of kayakers is not required for water releases. However, the Safety Code of American Whitewater discourages boating alone. In light of the unique challenges of this run, a minimum of two paddlers must be present at the designated kayak put-in location.

By 5:00 pm on the Friday prior to the scheduled release date,

- Kayakers must make a reservation with Chelan PUD in person or via the Chelan PUD website, <a href="http://www.chelanpud.org/whitewater-boating.html">http://www.chelanpud.org/whitewater-boating.html</a>, and,
- An American Whitewater representative must be designated and present to oversee both days of the event and to serve as a point of contact between Chelan PUD and the paddlers should any questions or issues arise.

All reserved participants and the American Whitewater representative 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. Proof of age is required. More than one run will be allowed. However, all kayakers must enter the river for a last run by 3:30 pm and be off the river by 6:00 pm each day.

It is recommended that all participants scout the river ahead of time and watch a video of kayaking in the Chelan River Gorge which is available on the PUD's website.

### **Liability Waiver**

Chelan PUD requires each kayaker sign a liability waiver prior to launching his or her craft in the Chelan River.

## Kayak Criteria

Only non-motorized, hard shelled kayaks or inflatables specifically designed to run Class V+ whitewater and approved by American Whitewater in consultation with Chelan PUD prior to the event will be allowed.

## **Survey Tool**

Chelan PUD recommends, in cooperation with American Whitewater, sending a survey via email to each kayaker within one week following the weekend's event. This survey will query kayakers on participation levels, schedule, spill volumes and difficulty.

#### **Evaluation**

Chelan PUD recommends meeting annually with American Whitewater, on or before December 1 each year, to discuss the survey results and the overall year's whitewater boating event.

Chelan PUD and American Whitewater recommend that, similar to this report, whitewater boating in the Chelan River continue to be evaluated every three years, and a report submitted to the FERC that provides recommendations for whitewater releases, if any, for the remainder of the License term.

## APPENDIX A: DESCRIPTION OF THE CHELAN RIVER

## **Description of the Chelan River**

This description of the Chelan River was written by paddlers who participated in the feasibility study conducted during the relicensing process.

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.

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)

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.

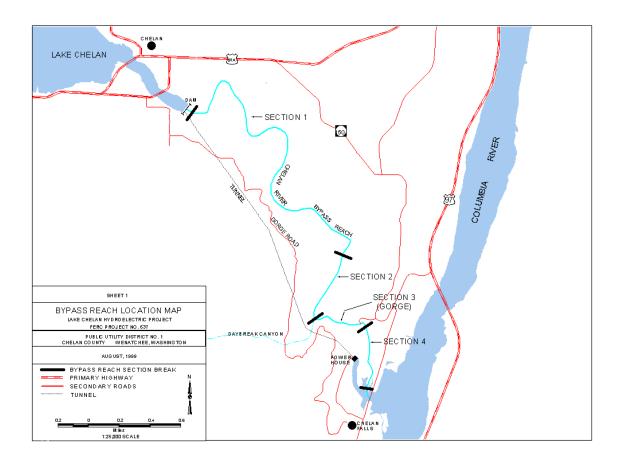


Figure 1: Chelan River And Vicinity

#### **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 hazardous.

*Take-out.* There are developed boat launches at both Chelan Falls and Powerhouse Parks at the confluence of the Chelan and the Columbia. These parks have extensive parking, restrooms, a large picnic shelter, and large lawn area for organizing and drying gear.

## 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.

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 riverleft.

**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.

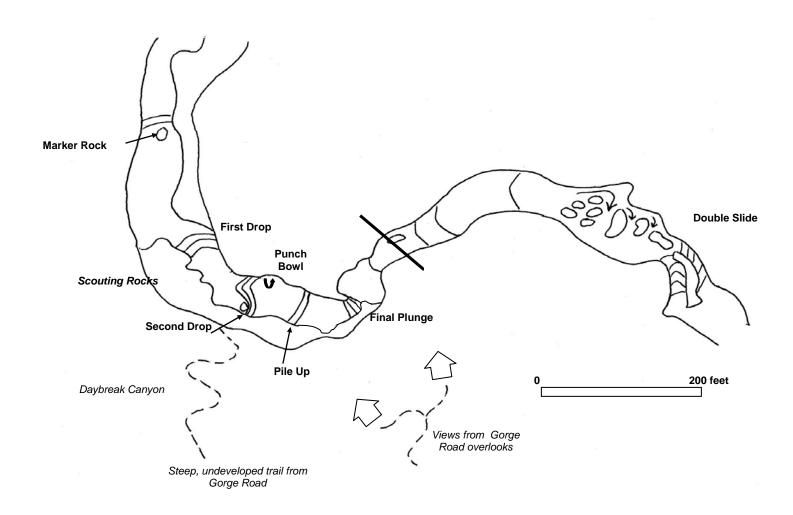


Figure 2: Map Of Key Rapids In The Central Gorge In Section 2 & 3 (Chelan Gorge).

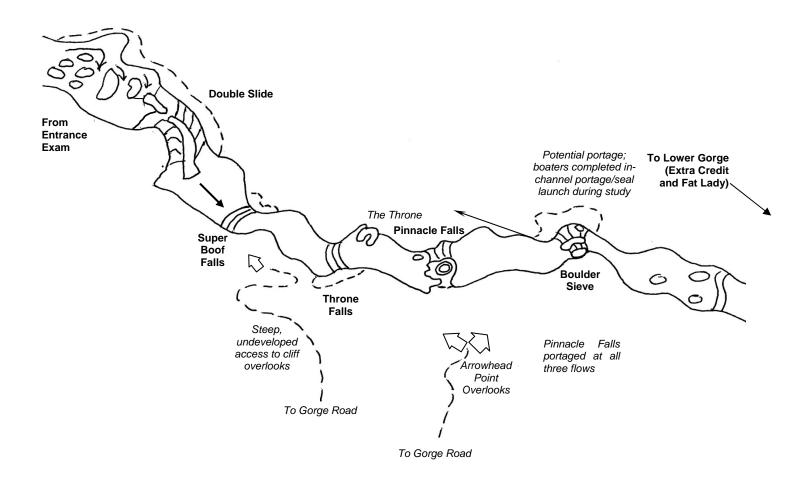


Figure 3: Map Of Key Rapids In The Central Gorge In Section 3 (Chelan Gorge).

## APPENDIX B: SURVEY RESULTS

## Post Monitoring Study On-Line Survey

From: Pomianek, Kris

Sent: Monday, November 07, 2011 11:30 AM

Aaron Johnson; Alex Kilyk; Alex Podolak; awigston@gmail.com; Ben To: Hawthorne; Boris Startsev; Brad Xanthopoulos; Brett Barton; Chris Arnold; chris totten; Chris Trentwold; Christie Glissmeyer; Cody Howard; Connor Dixon; Daniel Dellwo; 'Daniel Patrinellis'; Darren Albright; Dave Moroles (dmrockarolla@hotmail.com); dpaddler@gmail.com; Eric Arlington; Erik Schertzl; Helen Wheat (elwheat@gmail.com); Ian Barrett; Jake Sanders; Jared Page; Jean-Luc Robichaux; Jesse Coombs; Joe Howard; Joe Stumpfel; Jon Fuqua; Jon Prentice; Jonathan Ehlinger; Josh Fedora; Kelly Gilespie; Ken Scott; Kenneth Belenky; Kevin Holte; Lana Young; Leif Embertson; Luke Spencer; Marco Colella; Martyn Sollars; Matt Jordan; Matthew Swanson; Michael Gordon; Michael Harms; Michael Long; Nate Bell; Nathan Pfeifer; Patrick Lynch; Phil Higgins; Rob McKibbin; Ryan Cole; Ryan Scott; Ryan Young; Sam Grafton; Scott Waidelich (classvcreeker@hotmail.com); Shane Robinson; Todd Gillman; 'whitewater.fraggle@gmail.com'; Willie Illingworth Baker, Ryan; Heit, Ray; Smith, Michelle; 'Thomas O'Keefe'; Shearer, Christy; Bitterman, Deborah

Subject: Chelan River Whitewater Boating Study

### Good morning everyone -

As a paddler on the Chelan River through the Gorge during our 3-year whitewater boating monitoring study, I am sending you a survey on the link below. Please take a moment to complete it. Your input is important as we work together to develop a whitewater boating plan on the Chelan River for the future. The survey will remain active until November 18. Thanks!

#### http://ccpud.polldaddy.com/s/new-survey-2

Tom O'Keefe Kris Pomianek
American Whitewater Chelan County PUD

#### Whitewater Boating on the Chelan River

- 1. How satisfied were you with the overall boating experience on the Chelan River?
- 2. What aspect of the paddling experience didyou enjoy the most?
- 3. What did you enjoy the least?
- 4. How would you compare this Level V paddling experience to others across the Northwest
- 5. Would you recommend this Chelan River whitewater boating experience to other boaters?
- 6. Do you have any comments you would like to share with us to improve this experience in the future?
- 7. What is your preferred month for whitewater releases on the Chelan River?
- 8. Assuming two days of paddling were offered in September, what would you prefer?
- 9. How often would you be most likely to want to experience this opportunity?
- 10. Additional comments?

# Whitewater Boating on the Chelan River November 2011

## 1. How satisfied were you with the overall whitewater boating experience on the Chelan River.

	COUNT	PERCENT
Extremely satisfied	27	82%
Satisfied	5	15%
Somewhat satisfied	1	3%
Dissatisfied	0	0%
Somewhat dissatisfied	0	0%

## 2. What aspect of the paddling experience did you enjoy the most?

The time of year it ran and the quality of rapids.

Beautiful gorge, amazing whitewater and friendly locals. I was very impressed with the warmth of the local community and how they welcomed all the out of town boaters, coming from all over the pacific northwest, to enjoy their amazing resource.

The weather warm water overall it was a great run.

The Chelan Gorge releases provide a very unique experience for whitewater kayakers. The water is very warm (unlike any other river in the state), the canyon is impressive and beautiful, and all paddlers who enter the gorge are rewarded with a world class whitewater experience. This section of river though short, is a valuable recreational resource that should be protected for future generations. As word spreads about these new releases, paddlers will come from all over the US to paddle the Chelan Gorge during scheduled releases. This is a whitewater Classic!!!

The overall experience of spending two days in Chelan showed me how great these whitewater releases are. Camping at the putin, meeting locals and visitors in town, and paddling the unique whitewater of the gorge all were important parts of an awesome weekend. I left feeling like I had really gotten the "Chelan experience" and look forward to more in the future.

Access to whitewater. Scheduled releases. Chelan is quite a distance for a lot of paddlers. Having dedicated release schedule allows for scheduling with other paddlers, work, the wife...

The group participation and the extremly challanging whitewater. The rapids were varied in nature and challenging. Portages were possible for anyone not wanting to paddle a paticual rapid.

The quality of whitewater and the incredible scenery. Truly one of a kind.

Great warm water trip. It's very rare experience in the PNW to have a warm-water kayak destination.

Warm weather and water. Community interest. Good whitewater.

The scenery and the whitewater. And the warm water and air temperatures.

The committment and challenge

The gorge

Technical grade V creeking!!

the beutyfull canyon and the quallity of the rapids

seeing a new run

The challenge, the commitment and the beauty. I have kayaked for 15 years or more, and never have I had the opportunity to paddle something so scenic and so accessible. This is a run that I hope to do every year for the rest of my life.

I enjoyed the whitewater features of the river as well as the experience in the city of chelan.

The uniqueness of the dry desert gorge with high walls and the world class white water rapids. Working with the Chelan PUd was also easy and enjoyable. Having town so close was also fun for food and bars.

The remoteness of the Canyon, as well as the how easy of an adventure it is very simple logistics.

The remote and unique canyon experience that is relatively specific to the Chelan Gorge.

Awesome whitewater, beautiful gorge, it is hard to get any better than that!

fun drops. lots of boaters. warm water and weather.

Desert Canyon, crystal clear water, big drops, no dry top.

Warm water and friendly hospitality from Chelan PUD

World class rapids in an amazzing gorge, with a nice place to enjoy a few beers after the run. Oh, and coming from the UK, sik creeking in the warm water was awesome! Also giving us a chance to meet and chat to boaters from all over, giving us invaluable beta for the rest our trip on the west coast states.

the run was excellent - very challenging.

Great flows!

Scenery & challenging whitewater. Paddling in the sunny weather & the fact no other runs in the state had enough water to run them.

The deep gorge at chelan is unique. That coupled with the warm water makes chelan the only tropical river in Washington

The deep gorge at chelan is unique. That coupled with the warm water makes chelan the only tropical river in Washington

Unique east-side Cascades type kayaking. Amazing water quality. Great rapids. Warm water and weather. Easy access.

The warm weather and the warm greetings from the people involved living in Chelan.

## 3. What did you enjoy the least?

Not much! Great day out on the river.

Going home after. At first I was apprehensive about the whole check in process and the rather rigid schedule but the amazing friendly attitude of Kris and her crew made even that part enjoyable.

#### NA

Future releases should be held in September. Both parties agree with this. Our position is that more people will be able to attend and enjoy the releases if they are held in September.

The escort from PUD and police seemed a bit much. Most class V paddlers are very self sufficient and can make their way around the canyon without escort.

The rapids exiting the gorge are not paticularly pleasent to paddle due to their rocky nature with numerour siphons (as i recall)

trying to coordinate with enough boaters to get 6 people signed up and ready at the put in the day of. logistically, it's difficult.

Run is short.

The run is quite short. Having fewer, longer releases (like from early in the morning until later in the day) might be nicer so that more laps could be made in a single day. Also, the limited camping in the area, makes it a long drive with limited accommodations.

Dam release

The flatwater on the way to the gorge

No complaints

it was all good!

crowded river

Its a shame, of course, that the run is so short, but there isn't a whole lot anyone can do about that.

The paddle in.

Having to cordinate a minimum number of paddles for the release to go. A few times several of us were excited to paddle and had even started the trip to Chelan only to find out the min 6 was not met by registration time. Having a set release weekend and allowing people to register on that day would be better. This way Lassiter could plan better around this date.

N/A.

The "red tape" associated with paddeling this section currently.

short run.

getting stuck in a hole

Release cancellation was an issue due to hotel reservations. The 6 person minimum problematic with this.

Possibly too many people down in the gorge at one time. we ended up in one group of over 20 which became logisticaly awkward in small eddies and portaging.

no complaints - the run is very short but I doubt anything can be done about that.

#### Crowds

The 3-mile paddle in to where the 'real' action begins. It would be a fun stretch, however it would need another 500-1000cfs to be an enjoyable stretch to paddle. Access closer to the whitewater, ie hiking in, if feasible, would be preferred.

The run has consequences. I would hate to see people not prepared for this run.

The run has consequences. I would hate to see people not prepared for this run.

The darn kids that spray painted the walls near the bottom of the river!

The need for six boaters for there to be a scheduled release. In my opinion there only needs to be three people.

## 4. How would you compare this Level V paddling experience to others across the Northwest?

	COUNT	PERCENT
Above average	20	63%
One of the best	7	22%
Average	5	16%
One of the worst	0	0%
Below average	0	0%

## 5. Would you recommend this Chelan River whitewater boating experience to other boaters?

	COUNT	PERCENT
Absolutely	27	82%
Most Likely	5	15%
Maybe	1	3%
No	0	0%
Unlikely	0	0%

## 6. Do you have any comments you would like to share with us to improve this experience in the future?

Thanks Kris and everyone at PUD for your great attitude and friendly welcome! And thank you to the entire community for opening up to us so that we can enjoy this amazing resource. I was very disappointed that my life got in the way and I was not able to make it out to the most recent releases. I hope that the opportunity continues to be there and I can make it out next year and for many years to follow!

No

Saturday flows should always be around 385 CFS (NO LOWER) and Sunday should be 410 cfs MAX As the person who paddled all the Chelan releases during all three years, i'm uniquely qualified to make this judgement. Satuday = 385 cfs Sunday = 410 These should be the permant flows for future releases!!!

It's pretty clear that it is difficult to get large paddler participation for multiple weekends on the Chelan. That's a difficult thing to do for a run that is far from an urban area and is relatively short. There just aren't that many Class V paddlers in Washington. However, I do think that we have demonstrated that the Chelan is worth it, and that future release would be appreciated and utilized by the kayaking community. I really came to appreciate how enjoyable it was to come to Chelan for a weekend. The whitewater was part of it, but more

than that is was getting to visit this amazing area for an enjoyable two days. I would not have come, and am unlikely to visit Chelan again, without the opportunity to paddle the Chelan Gorge. I hope that I have the opportunity to return in future years. Thanks!

Inclusion within the regional guide book (if not already)???

the optimum size of group for kayaking would be somewhere in the 3-5 person range, above that, things get a little crowded and can become a safety concern. also, coordinating with 6+ people gets to be tricky. it might be best to just have a release one or two weekends of the month in august and/or september when there arent many other boating options, and the chelan will draw large crowds. i know a lot of paddlers that love the Chelan, but committing to a certain date with 5 other paddlers is challenging. Also, if you happen to be that 6th paddler that the group is depending on, and you have to bail, 5 paddlers plans get derailed. more flexibility with flow releases would encourage more kayakers to make this a yearly stop in their boating plans.

I think the logistics were handled very well. Remember to advertise this as a class V kayak destination. The whitewater is challenging, and so are some of the portages. This should be considered an expert run only.

I think the timing of the releases were off for the demand of this kind of a run. I would be more inclined to travel to this part of Washington for this kind of a run (in particularly, the short length of the run) in the spring, when the weather is unpredictable and less than great in other parts of the state. However, in the spring, the Chelan area is often quite nice and warmer than other parts of the state. Also, I'm not likely to travel there twice in one month for kayaking such a short run. I would recommend one release each month in May, June, then Sept. and Oct.

I would avoid a July release. An august release would work best as there is not a lot of other class V rivers running in the state

I dont know how it could be better all the dam personel were very friendly poeple

I think the requirement for 6 boaters needs to be revisited. This number would be more appropriately set at 4. Its not actually as safe to have such a large number on the water at once, and sometimes it can be hard to find 6 boaters with the talent required to do this run, all available to paddle on the same day at the same time.

not at this time.

Please see the comment to Q3.

The later in the season the better as well as many days in a row I would like to see it happen four days in a row once a year

N/A.

This is a true gem of a whitewater run, and if more release dates were provided, I see it being one of the most popular class V runs in the state!

i thought everything went smooth. the support from everyone was great.

Schedule releases during the summer draw down and dont worry about signing people up. Calculate the release level to the draw down goals and if people are there they can run it, if not Chelan PUD is still achieving their goals of summer draw down.

the later releases are great as they are not competing with other runs in the area.

Have the releases in August-October when many of the other runs in the state do not have adequate water to run (like you guys did this year). When other runs in the state have water (May-July), not many people will make the drive over. The releases are great and the Chelan PUD folks are great.

Cookies

Cookies

Have flexible release dates with a few different flows.

Please let us back in the gorge!

## 7. What is your preferred month for whitewater releases on the Chelan River?

	COUNT	PERCENT
September	24	77%
August	6	19%
July	1	3%

# 8. Assuming two days of paddling were offered in September, what would you prefer?

	COUNT	PERCENT
One weekend with both Saturday and Sunday – same weekend	20	65%
Two Different weekends	8	26%
Saturday only	2	6%
Sunday only	1	3%

## 9. How often would you be most likely to want to experience this opportunity?

	COUNT	PERCENT
Every year	26	81%
Every other year	4	13%
I have experienced it once and probably won't come back	1	3%
Every three years	1	3%
Every four years	0	0%
Every five years	0	0%

#### **10. Additional comments?**

It was an amazing experience and I truly hope we continue to have the opportunity to come back year after year. I would like to see two weekends in August and two weekends in

September. If that is not possible I would say at least one weekend in August and one in September. I think that later in the summer will generally have a better turn out as that is when nothing else is running and people will be more likely to make the drive for some great whitewater. I would also push for doing both days in a weekend as many people have to drive a long ways to get there and are more likely to do so for a whole weekend experience rather than single run then driving home. Plus, it gives us an excuse to hang out Saturday night and enjoy the local community. Thanks again!

There should be a minimum of four releases per year (2 weekends) in September Always a saturday and sunday. We like to camp and justify the long drive with 2 days boating consecutive.

I paddled this section (togethor with a freind) whilst on an overseas kayak trip (from England). It was a great experience with much enthausim from the organising parties. Living in the UK may have negatively skewed some of my responses to the above questions (such as no 9). Many Thanks

I just want to thank you for allowing me the opportunity to experience this truly amazing place. i feel fortunate to have made it in there twice in the past two years, and look forward to the opportunity to come back.

In response to question 8: Two days the same weekend is preferable to me because it's an 8 hour drive to Chelan for me. So, the opportunity to maximize a weekend is big.

Again, Spring would be a better time to host these releases than summer. Then fall again is not bad. I think one day per weekend with releases spread out more throughout the year would be better

had a great time, will be back next year

Thank You for offering a chance at saving this run!

Warn people this is technical class 5 run! too many class 4 boaters in there getting their asses handed to them and forcing random people to put themselves in harms way to help. This could end up being a bad scene with bad publicity... I've run it twice now and both times I watched more carnage go down those days than I have in 5 years of running class 5.. kinda sketchy to watch but whatever, everyone is having fun... just my 2 cents.. Thanks for what you guys are doing!!!

Kris, you are awesome. Thank you for all that you do.

Thank you to Chelan PUD and to AW for all there work and support for the flow releases. The Chelan gorge is a great recreational resource in WA state and I hope we can work together to keep the releases for the future. Thanks, Alex Podolak

Thank you for all the hard work Marco Colella

Thank you for the opportunity to boat this awesome canyon. Although not an annual trip for me, some paddlers WILL come back every year.

again, the support from all those involved was strong and positve making for a rewarding experience. thank you.

Schedule releases during the summer draw down and dont worry about signing people up. Calculate the release level to the draw down goals and if people are there they can run it, if not Chelan PUD is still achieving their goals of summer draw down.

See Q. 6. I think your guys' time would be best spent only having one release weekend. If that's the case, people will show up for it since there are no other days. If it is in late August

or anytime in September, no other rivers have water. The only option is Chelan Gorge, which is an awsome one, and many people will come. Since the quality of whitewater in Chelan Gorge is comparable, yet shorter, then many other runs in the state and located away from the 'paddling community' people are not likely to pass other rivers to paddle something so short of the same quality. The opportunity is very unique and people will make the trip from all over the US once the word is out and releases are regular. Thanks for the opportunity.

### Thanks

This river is a great resource for kayakers. There will be years when less people show up and years when lots of people show up. It is the nature of things. Therefore is very important to make sure flows are there for future kayakers.

I think that if scheduled releases are to be limited to only one month: two release weekends (saturday and sunday) are ideal. I think thats when you will see the most participation.

## Post Monitoring Study On-Line Survey

From: Pomianek, Kris

Sent: Monday, November 07, 2011 11:30 AM

Aaron Johnson; Alex Kilyk; Alex Podolak; awigston@gmail.com; Ben Hawthorne; Boris Startsev; Brad Xanthopoulos; Brett Barton; Chris Arnold; chris totten; Chris Trentwold; Christie Glissmeyer; Cody Howard; Connor Dixon; Daniel Dellwo; 'Daniel Patrinellis'; Darren Albright; Dave Moroles (dmrockarolla@hotmail.com); dpaddler@gmail.com; Eric Arlington; Erik Schertzl; Helen Wheat (elwheat@gmail.com); Ian Barrett; Jake Sanders; Jared Page; Jean-Luc Robichaux; Jesse Coombs; Joe Howard; Joe Stumpfel; Jon Fuqua; Jon Prentice; Jonathan Ehlinger; Josh Fedora; Kelly Gilespie; Ken Scott; Kenneth Belenky; Kevin Holte; Lana Young; Leif Embertson; Luke Spencer; Marco Colella; Martyn Sollars; Matt Jordan; Matthew Swanson; Michael Gordon; Michael Harms; Michael Long; Nate Bell; Nathan Pfeifer; Patrick Lynch; Phil Higgins; Rob McKibbin; Ryan Cole; Ryan Scott; Ryan Young; Sam Grafton; Scott Waidelich (classvcreeker@hotmail.com); Shane Robinson; Todd Gillman; 'whitewater.fraggle@gmail.com'; Willie Illingworth Baker, Ryan; Heit, Ray; Smith, Michelle; 'Thomas O'Keefe'; Shearer, Christv:

Bitterman, Deborah

Subject: Chelan River Whitewater Boating Study

## Good morning everyone -

As a paddler on the Chelan River through the Gorge during our 3-year whitewater boating monitoring study, I am sending you a survey on the link below. Please take a moment to complete it. Your input is important as we work together to develop a whitewater boating plan on the Chelan River for the future. The survey will remain active until November 18. Thanks!

http://ccpud.polldaddy.com/s/new-survey-2

Tom O'Keefe American Whitewater

Kris Pomianek Chelan County PUD

#### Whitewater Boating on the Chelan River

- 1. How satisfied were you with the overall boating experience on the Chelan River?
- 2. What aspect of the paddling experience didyou enjoy the most?
- 3. What did you enjoy the least?
- 4. How would you compare this Level V paddling experience to others across the Northwest?
- 5. Would you recommend this Chelan River whitewater boating experience to other boaters?

- 6. Do you have any comments you would like to share with us to improve this experience in the future?
- 7. What is your preferred month for whitewater releases on the Chelan River?
- 8. Assuming two days of paddling were offered in September, what would you prefer?
- 9. How often would you be most likely to want to experience this opportunity?
- 10. Additional comments?

## APPENDIX C: CONSULTATION WITH AMERICAN WHITEWATER



Thomas O'Keefe, PhD Pacific Northwest Stewardship Director 3537 NE 87<sup>th</sup> St. Seattle, WA 98115 okeefe@americanwhitewater.org

May 1, 2012

Kris Pomianek Recreation Resource Advisor Chelan County PUD P.O. Box 1231 Wenatchee, WA 98807-1231

Dear Kris,

American Whitewater is writing to document the consultation that occurred in developing the results of the three-year whitewater boating study for the Chelan River in accordance with Article 407 of the license for the Lake Chelan Hydroelectric Project (FERC P-637). We worked collaboratively with Chelan PUD throughout the three years of the study and in development of the report. We support the recommendations of the report and implementation of the revised whitewater release schedule beginning in 2012.

Article 407 of the License Order and 11(h)(1) - (9) of the Settlement Agreement required Chelan PUD to conduct a three-year whitewater boating monitoring study. The final report from this study includes several key elements that are important to our interests described in additional detail below.

The most significant outcome of our review of the three-year monitoring study was a joint recommendation developed with Chelan PUD that whitewater releases be limited to two days over one weekend each year in September for the immediate future. Based on the results of the monitoring study and following consultation with our membership, we agreed that current demand does not warrant the eight days of releases that were agreed to in our Settlement Agreement. Given that the current license expires in 2056, however, we believe that demand could change and we signed the agreement with the knowledge that we were making a long-term decision to balance whitewater recreation with power generation and other project purposes. We support implementation of two days of releases over one weekend as described in the report, and believe that the provisions for continued evaluation of the experience including an annual meeting between American Whitewater and Chelan PUD and a formal review of results of the next three years of releases in 2014, will allow us to continue to evaluate the effectiveness of our joint recommendations in accordance with the Settlement Agreement and License Order.

The new proposal includes several key elements that were important to American Whitewater:

 Modifications to the reservation system. Many of our members expressed dissatisfaction with the reservation system and in particular the uncertainty over whether a whitewater event would be occurring. Paddlers typically organize in groups of 3-4 for challenging whitewater runs and if one group of four signed up for the release, they could not be assured of a second group signing up. The uncertainty created problems because many paddlers were traveling from up to four hours away or more. The result was a situation where additional paddlers were pressured into joining a group to meet the minimum requirements creating an unsafe dynamic that was unique to the style of reservation system originally developed. The proposed modifications address our safety concerns in this regard.

- Accommodations for inflatables designed for class V whitewater. The original plan only accommodated hard-shell whitewater craft. In the Pacific Northwest a number of paddlers have pioneered whitewater runs as challenging or more challenging than the Chelan Gorge using specially designed inflatable boats—typically small one-person inflatable kayaks or small two-man rafts designed for steep technical gorges and large waterfalls characteristic of the Chelan Gorge. These boats were not in wide use at the time of the original settlement agreement. As with all outdoor activities however, equipment and techniques change and a number of members expressed interest in eliminating the language that made this river exclusive to hard-shell boats.
- Evaluation of whitewater recreation: The provisions in the report that describe the evaluation process are important to American Whitewater. As described above, we believe the move towards one weekend of scheduled releases is appropriate given current demand. However, the opportunity to evaluate future changes in demand is important to our interests and consistent with the Settlement Agreement we signed that included provisions for eight days of releases. The language of the report does not set specific triggers for additional days. We believe any decision to revisit the need for additional days should be made based on actual demand along with the results of continued monitoring and evaluation. Future monitoring efforts should pay particular attention to any impacts on overall safety that could occur with increased use and crowding on this reach.

Thank you for the opportunity to provide comment on the report. We look forward to continued collaboration with Chelan PUD in implementing the provisions for whitewater recreation on the Chelan Gorge.

Sincerely,

MOIN

Thomas O'Keefe, PhD

Pacific Northwest Stewardship Director

## **Consultation with American Whitewater**

From: Pomianek, Kris

Sent: Friday, January 13, 2012 11:08 AM

To: 'Thomas O'Keefe'

Subject: RE: conversation with Tom O'Keefe Thursday.docx

That is perfect - good catch - thanks for getting back to me - I'll keep you posted as I move along - Kris

From: Thomas O'Keefe [mailto:okeefe@americanwhitewater.org]

Sent: Friday, January 13, 2012 11:06 AM

To: Pomianek, Kris

Subject: Re: conversation with Tom O'Keefe Thursday.docx

If I could just add a couple qualifiers on the one weekend option and a safety note that would be great.

-- Tom

Thomas O'Keefe, PhD Pacific Northwest Stewardship Director American Whitewater 3537 NE 87th St. Seattle, WA 98115

425-417-9012 okeefe@amwhitewater.org http://www.americanwhitewater.org

On Jan 13, 2012, at 10:51 AM, Pomianek, Kris wrote:

- > Tom I am attaching a summary of our conversation yesterday. Have I captured it correctly? Kris
- > < conversation with Tom O'Keefe Thursday.docx>

Thursday, January 12, 2012

11:00 am – phone conversation with Tom O'Keefe, American Whitewater

Participating: Tom O'Keefe

Ray Heit, Chelan PUD

Kris Pomianek, Chelan PUD

Regarding: Open discussion on options available for whitewater boating on the Chelan

River in the future, under the FERC License for the Chelan Dam, based on

survey data and participation levels.

#### Discussion:

**July runs** – it was agreed that the July runs do not work well for either organization and are not recommended for the future. Paddlers have several other options available during that time of year so participation has been low and the balance of snow pack and lake level pose challenges for Chelan PUD at that time as well.

**September runs** – it was agreed that September runs are best. We discussed 2 weekends during September but felt that at this time one weekend would probably be best to maximize participation during the event given current demand. The 3<sup>rd</sup> weekend in September was discussed as a possibility.

Holding this event every year or every other year was also discussed.

A "check in time" at 3 years, 5 years or 10 years was also important for both American Whitewater and Chelan PUD to determine interest and logistics.

Based on survey results, a new option was discussed.

- Chelan PUD would ramp up from 80 cfs to 375 cfs on Saturday and 400 cfs on Sunday
- There would be no minimum number of boaters required (American Whitewater has safety concerns with the current arrangement where individuals are "pressured" to participate to meet the minimum group requirements).
- Boaters would register on-line with Chelan PUD and sign a liability waiver form
- Boaters would check in Saturday morning at the put-in area with Chelan PUD Parks staff
- American Whitewater would identify a representative at each event who would monitor skill level, equipment, safety procedures and emergencies
- American Whitewater representative would also make sure everyone is off the river by 6:00 pm each day
- Chelan PUD's park staff would monitor the run at least 2 times during the day and would check in with the American Whitewater representative to ensure everyone is off the river by 6:00 pm each day

It was agreed that both Tom and Kris would talk about our conversation with the appropriate people within each organization and would be back in touch with each other by January 23.

From: Thomas O"Keefe
To: Pomianek, Kris;

cc: "(okeefe@amwhitewater.org)"; Bitterman, Deborah;

Sokolowski, Rosana;

Subject: Re: 2010 Whitewater Boating Monitoring Study Date: Wednesday, January 19, 2011 12:26:15 AM

Kris,

## A couple comments:

## Page 2

You refer to 2010 legislative session. Actually testimony was provided on 1/22/2009. There was no action in 2010 which was a short session.

## Page 3

I am confused by the sentence "...FERC issued a letter order P-637-022 accepting..." That is the project/docket number not the order number. Maybe you mean the accession number, unique to the document, which is 20100304-0027.

## Page 6

Another reference to 2010 session (see above).

## Page 17

The figure is hard to read especially in black and white. I would at least consider presenting the information in a simple table in addition to the figure. List each item in a separate row with the rating expressed as mean and standard deviation.

## **Appendix**

Please include a copy of the survey instrument in the appendix.

Looking forward to year 3 and let's schedule a discussion next fall before you start into a more comprehensive summary of all 3 years. Nothing to change for 2011 but I would like to have some discussion regarding dates and number of releases. I would also like to review our reservation system approach.

Also just so you are aware, now that folks are getting to know the run better there is more interest in doing more than one lap. For the first two years we have encouraged folks to take their time and only do one run. It is a natural progression for paddlers to want to get in more than one run a day once they learn the run better. It will be important to emphasize the need to be off the water by 6pm and we can work together on that.

Let me know if you have any question on my comments.

All the Best.

Tom

Thomas O'Keefe, PhD Pacific Northwest Stewardship Director American Whitewater 3537 NE 87th St. Seattle, WA 98115

425-417-9012 okeefe@amwhitewater.org http://www.americanwhitewater.org

On Dec 29, 2010, at 8:54 AM, Pomianek, Kris wrote:

> > Hi Tom -

> Hope all is well with you and that you are enjoying the season with your family - Hopefully you are getting a chance to take some time off!

> I am attaching the 2nd year whitewater boating monitoring study and I would appreciate it if you could please provide comment. I would like to send it off to FERC by January 20, so any changes or comments from you before then would be greatly appreciated. If you have questions, have any problems with the document or if you are unable to meet the deadline, please be sure and let me know - I am very flexible. As you know, we still have quite a bit of time before the plan is due to FERC, but I am anxious to get year 2 done so we can move on to planning for year 3.

> Overall, I have really enjoyed the experience and all of the boaters. They are a great group! My best to you, Tom for a Happy New Year and I look forward to hearing from you soon.

> Regards, > Kris > Kr

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- >
- > Kris Pomianek
- > Recreation Resource Advisor
- > Chelan County PUD
- > PO Box 1231
- > Wenatchee, WA 98801
- > 509-661-4186 work
- > 509-679-0813 cellular
- > kris.pomianek@chelanpud.org

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