



**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

April 22, 2015

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

**VIA ELECTRONIC FILING**

Re: **Lake Chelan Hydroelectric Project No. 637-043**  
**Article 403 – Stehekin Area Implementation Monitoring Plan**  
**2014 Annual Report and 2015 Work Plan**

Dear Secretary Bose and Deputy Secretary Davis:

On May 6, 2008, the Federal Energy Regulatory Commission (Commission) issued the “*Order Modifying and Approving Stehekin Area Implementation Plan Under Article 403*”<sup>1</sup> requiring the Public Utility District No. 1 of Chelan County, Washington (Chelan PUD) to file an annual report on work planned and completed with funding provided to the U.S. Forest Service (USFS), U.S. Department of the Interior, National Park Service (NPS) and the Washington Department of Fish and Wildlife (WDFW) by April 30, 2009. The Stehekin Area Implementation Monitoring Plan states that all payments for work conducted will be in accordance with section 19 of the Settlement Agreement.<sup>2</sup>

In accordance with Ordering Paragraph (C) of the above Order, Chelan PUD hereby files the 2014 Annual Report and 2015 Work Plan to the Commission.

Please do not hesitate to contact me regarding any questions or comments regarding this report.

Sincerely,

Jeffrey G. Osborn  
Compliance Program Supervisor  
jeff.osborn@chelanpud.org  
(509)661-4176

Enclosure

c: Annelise Lesmeister, NPS

<sup>1</sup> 123 FERC ¶ 62,100 (2008)

<sup>2</sup> Chelan PUD, on behalf of the signatories, filed a comprehensive settlement agreement on October 17, 2003.

# LAKE CHELAN HYDROELECTRIC PROJECT NO. 637

## Stehekin Area Implementation Monitoring Plan

### 2014 Annual Report and 2015 Work Plan

---

#### Introduction

In accordance with Article 403 of the new License,<sup>1</sup> the Public Utility District No. 1 of Chelan County, Washington (Chelan PUD) filed to the Federal Energy Regulatory Commission (Commission or FERC) a Stehekin Area Implementation Monitoring Plan (SAIMP) on November 6, 2007. The purpose of this plan is to provide details on the measures that will be implemented to monitor reductions in dust emissions, establishment of native riparian vegetation, and reduction in non-native plants in the reservoir drawdown zone and along the reservoir shoreline in the area of Stehekin, as specified in the License articles, and the Lake Chelan Comprehensive Settlement Agreement (Settlement Agreement), dated October 8, 2003 (Appendix A of the Project License).

On April 10, 2008, the Commission approved and modified the Wildlife Habitat Plan under Article 406. The plan submitted to the Commission provided details on the implementation of riparian habitat improvements. The improvements or enhancements to the Stehekin area habitat overlap with measures to be implemented under Article 403, so the U.S. Department of the Interior, National Park Service (NPS) and Chelan PUD agreed to combine these in the SAIMP.

Additionally, on May 6, 2008, the Commission issued the “*Order Modifying and Approving Stehekin Area Implementation Plan Under Article 403*”<sup>2</sup> requiring Chelan PUD to file an annual report on work planned and completed with funding provided to the U.S. Forest Service (USFS), NPS and the Washington Department of Fish and Wildlife (WDFW). However, most of the actions for the SAIMP will be undertaken by the NPS. The SAIMP states that all payments for work conducted by the NPS will be in accordance with section 19 of the Settlement Agreement. The annual report is to be submitted by April 30 each year, beginning April 30, 2009.

The following report provides a summary of SAIMP activities completed with funding provided by Chelan PUD during 2014 and a description of anticipated activities with funding to be provided during 2015. A table is provided at the end of this report that summarizes agency funding provided in 2014, anticipated activities and funding for 2015, and proposed activities for 2016.

---

<sup>1</sup> 117 FERC ¶ 62,129 (2006)

<sup>2</sup> 123 FERC ¶ 62,100 (2008)

## **Activity during the Previous Calendar Year 2014**

### DUST ABATEMENT WORK –

Representatives of the NPS (Vicki Gempko and Jon Riedel) and Chelan PUD (Gene Yow) met via a conference call on May 9, 2014, to discuss progress to date and next steps preparatory to designing an irrigation system or testing the forming of soil ridges in dust source areas. This conference call was preceded and followed up by e-mails and telephone calls.

Much of the work in 2014 was directed toward determining how much water is required per unit area to stabilize the soil, how quickly the soil dries out sufficiently to become airborne, and what parts of Stehekin Flats are most critical as dust sources.

### LC04a, Task 1: Dust Abatement Options

Two options are presently being considered for reducing windblown dust from Stehekin Flats. One is the use of an irrigation system to wet the surficial soils. Consideration of this approach is based on observations from the site that high winds do not result in dust events when they occur within a few days after rain on the Flats.

The second option under consideration is that of creating small ridges in the soil surface perpendicular to the prevailing wind direction. Consideration of this approach is based on similar practices used to stabilize farmland. The method is well developed but is not commonly applied in locations such as Stehekin Flats where disturbance of the subsurface soil must be minimized.

The work in 2014 was focused on key information that could be gathered by very small-scale testing. Representative areas were selected and surface soil samples were collected and characterized. The test areas were then wetted and observed to evaluate the level of soil moisture required to stabilize the surface soil, how much water was needed to achieve that condition, and how quickly the soil dried out and became unstable again. The information obtained is expected to be necessary for design of an irrigation system.

Concurrently, permission was sought to test the formation of soil ridges for soil stabilization.

### LC04a, Task 3: Monitoring Evaluation

No monitoring was done in 2014 other than visual observations. Surface soils were sampled and tested to measure their grain size distribution.

## STEHEKIN HABITAT WORK –

On November 1, 2010, Chelan PUD filed a Riparian Zone Plan (plan) for Commission approval pursuant to Article 403 of Project License. Pending approval of the Riparian Zone Plan, no work was conducted during the first half of 2011. On August 2, 2011, the Riparian Zone Plan was approved.<sup>3</sup> Upon Commission approval, work ensued during the second half of 2011 with collection and propagation of native plant material and establishing baseline transects and photo points.

### Riparian Zone Plan

On August 2, 2011, the Riparian Zone Action Plan was approved by the Commission. NPS was informed of Riparian Zone Plan approval on August 4, 2011 via email. On December 10, 2013, Chelan PUD and the NPS participated in a conference call to establish the project budget and schedule necessary to file the first Riparian Zone Plan Technical Report by the November 6, 2014 filing date. During the second quarter of 2014, the NPS conducted monitoring for nesting bald eagles and osprey and worked on the outline for Riparian Zone Plan Technical Report. On August 26, 2014, Chelan PUD submitted a “Request for Time Extension for the 2014 Technical Report and a Revised Schedule for Future Reports” with the Commission. The extension and schedule revision were necessary since the riparian zone monitoring was not scheduled to occur until September, which left little time to compile data and complete the report by the November 6, 2014 filing date. The Commission granted the time extension and revised reporting schedule on October 14, 2014.

Riparian zone monitoring at Stehekin did not occur until late October of 2014. Chelan PUD met NPS staff at Stehekin on October 21, 2014, to observe riparian zone monitoring being conducted by the NPS staff. During the October 2014 riparian zone area monitoring, native plants were collected from the site to propagate in the Marbelmount nursery for future planting, reed canarygrass was sprayed with herbicide and photo documentation occurred. Data summary, analysis and report writing occurred during November 2014. NPS provided a draft report on November 25, 2014. Chelan PUD and NPS staff worked on the draft report through much of December and filed the first Riparian Zone Technical Plan on December 31, 2014, in compliance with the new reporting schedule.

### LC09c1, Task 1, Item 1: Collect Plant Material

Plants were collected again during riparian zone monitoring in 2014.

### LC09c1, Task 1, Item 2: Plant Propagation

NPS now has over 1,700 plants it is propagating for future planting in accordance with the Riparian Zone Plan.

---

<sup>3</sup> 136 FERC ¶ 62,096

LC09c1 Task 1, Item 4: Contain Canary Grass

In 2014, reed canarygrass was treated with herbicides to reduce its cover in accordance with the Riparian Zone Plan.

LC09c1, Task 1, Item 6: Crew Lead

In 2014, Chelan PUD reimbursed the NPS crew lead for riparian monitoring and project oversight of plant collection and propagation.

LC09c1, Task 1, Item 7: Plant Ecologist

In 2014, Chelan PUD reimbursed the NPS for Plant Ecologist time related to riparian zone monitoring, data summary, and report writing.

LC09c1, Task 2 Item 3: Osprey and Eagle Surveys

Chelan PUD reimbursed NPS for bald eagle and osprey nest monitoring conducted in 2014. In May 2014, NPS monitored for nesting osprey and bald eagles in the Stehekin area. One active bald eagle nest was observed but no nesting by osprey was observed. Subsequent monitoring of the bald eagle did not result in the observation of eagle chicks. The nest was considered unsuccessful for unknown reasons.

***2014 Meeting Activity***

The NPS and Chelan PUD met on May 9, 2014, to discuss dust abatement work and to summarize 2014 activities, project budget and schedules for proposed work in 2015, including the first Riparian Zone Monitoring Report due to the Commission in November 2014. On August 25, 2014 Chelan PUD and the NPS agreed (via e-mail) that an extension was necessary to accommodate the late sampling schedule and report writing. Chelan PUD submitted the request for extension and schedule revision on August 26, 2014. Chelan PUD and NPS met on site at Stehekin to observe riparian zone monitoring on October 21, 2014. Chelan PUD and NPS corresponded via telephone and e-mail on drafts of the Riparian Zone Technical report until it was completed and filed on December 31, 2014.

## **Activity Planned for Calendar Year 2015**

### DUST ABATEMENT WORK –

In 2015, the NPS plans to work on gaining better access to the dust source areas on Stehekin Flats. Details of the 2015 work are provided below:

#### LC04a, Task 1: Dust Abatement Options

Two dust abatement options are still under consideration. These are irrigation to maintain high enough moisture content in the surface soils to resist movement of the surface soil particles, and molding of ridges in the soil surface to decrease the ability of wind to pick up soil particles. For either of these approaches to be tested further, and especially to deploy a full-scale use of either method, will require better access to the dust source areas than has been available to date. Also, before testing these methods more extensively, it seems advisable to determine what sorts of restrictions may apply to disturbance of soils at the sites of interest. For this reason, most of the efforts of the NPS and Chelan PUD in 2015 will be directed toward obtaining approval for improved access to the dust source areas (e.g. a temporary bridge) and determining the limits on soil disturbing activities on Stehekin Flats.

In addition to the work noted above, some effort will be devoted to planning for 2016.

#### LC04a, Task 3: Dust Monitoring and Evaluation

The nephelometer installed at Stehekin Landing in 2011 will provide the ability to make quantitative measurements of dust reaching the landing, as well as recording other related factors such as wind direction and speed.

### STEHEKIN HABITAT WORK –

In 2015, the NPS plans to continue implementing the Riparian Zone Plan. Details of the 2015 work are provided below:

#### LC09c1, Task 1, Item 1: Collect Plant Material

Plants may be salvaged on sites that are slated for weed control.

#### LC09c1, Task 1, Item 2: Plant Propagation

Seeds and cuttings collected will be propagated in the NPS greenhouse facility in 2015.

#### LC09c1, Task 1, Item 3: Regrade Deltas

NPS will explore the feasibility of this portion of the plan with regard to potential permitting challenges.

LC09c1, Task 1, Item 4: Contain Canary Grass

NPS will use an integrated approach to control reed canary grass per the approved Riparian Zone Plan.

LC09c1, Task 1 Item 5: Plant Nursery Stock

In 2015, planting of propagated plants is scheduled to occur.

LC09c1, Task 1, Item 6: Crew Lead

Labor and oversight related to monitoring for the 2015 Riparian Zone Plan Monitoring Report.

LC09c1, Task 1, Item 7: Plant Ecologist

Labor and oversight related to monitoring and report writing for the 2015 Riparian Zone Plan Monitoring Report.

LC09c1, Task 2 Item 3: Osprey and Eagle Surveys

Monitoring is scheduled for the spring of 2015.

## **Funding Activity**

Section 19.3 of the Settlement Agreement requires Chelan PUD to enter into payment agreements with the NPS prior to allocation of funds. Chelan PUD coordinated with the NPS to obtain a 2015 annual work plan, including estimated funding amounts, as prescribed under Section 19.3 of the Settlement Agreement and in the payment agreement.

The table below provides a summary of funds available, stated in net present value, where applicable. The amounts have been adjusted to 2015 dollars using the CPI adjustment as of January 31, 2015, as outlined in Section 19.1 of the Settlement Agreement.

**LAKE CHELAN PROJECT NO. 637**  
**FUNDING PROVISIONS – YEAR 2014 SPENT – YEAR 2015 ACTIVITIES – YEAR 2016 PROPOSED ACTIVITIES**  
**2015 YEAR START**  
**April 2015**

AGMT ARTICLE	DESCRIPTION	2014 SPENT	2015 PROPOSED ACTIVITIES	ESTIMATED COSTS 2015	2016 PROPOSED ACTIVITIES	ESTIMATED COSTS 2016	BALANCE AVAILABLE AS OF JANUARY 1, 2015 <sup>4</sup>
LC04a One Time (Combo)	NPS Stehekin Dust Abatement (SAIMP)	\$3,861.89	Task 1: Abatement ..... Task 3: Monitoring and Evaluation .....	\$49,900.91 \$4,287.05	Task 1: Abatement..... Task 2: Airborne Dust Monitoring ..... Task 3: Monitoring and Evaluation .....	\$40,330.50 \$17,284.50 \$4,287.05	\$172,724.91
LC09c1 (Combo)	NPS Stehekin Habitat (made part of SAIMP)	\$8,558.36	Task 1, Item 2: Propogate Plants ..... Task 1, Item 3: Regrade Deltas ..... Task 1, Item 4: Contain Canary Grass ..... Task 1, Item 5: Plant Nursery Stock ..... Task 1, Item 6: Crew Lead..... Task 1, Item 7: Plant Ecologist ..... Task 2, Item 3: Osprey/Eagle Surveys.....	\$11,786.22 \$0.00 \$14,062.08 \$0.00 \$17,166.22 \$2,645.48 \$3,913.80	Task 1, Item 2: Propogate Plants ..... Task 1, Item 4: Contain Canary Grass..... Task 1, Item 6: Crew Lead .....	\$6,568.11 \$11,062.08 \$8,642.25	Balance Available: \$77,388.84  2015 Contribution: \$13,157.83  Total with NPV: \$325,614.84
LC09c2B One Time (Combo)	NPS Lake Chelan Basin Riparian Habitat (made part of SAIMP)	\$0.00	No activity planned.....	\$0.00	No activity planned.....	\$0.00	\$65,789.14
	<b>TOTALS</b>	<b>\$12,420.25</b>	<b>2015 Year Start</b>	<b>\$103,761.76</b>	<b>2016 Proposed</b>	<b>\$88,174.49</b>	

<sup>4</sup> For all measures: Balance Available – All contributions, including current year, minus net amount of expenditures.  
For measures with annual contributions: 2015 Contribution – 2015 contribution amount adjusted for CPI.  
For measures with annual contributions: Total with NPV – Total of current balance and remaining net present value of future contributions calculated at an assumed 7% discount rate and 2.5% inflation.