



**PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY**

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April 25, 2016

Honorable Kimberly D. Bose, 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**  
**2015 Annual Report and 2016 Work Plan**

Dear Secretary Bose:

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 2015 Annual Report and 2016 Work Plan to the Commission. Please note that the milestone dust monitoring due in 2016 and 2026 has been postponed to 2018 and 2028 in order to allow the NPS and Chelan PUD to address access and ground disturbance issues, and to prepare for a meaningful test of one of the dust abatement methods under consideration. Refer to the subsection, LC04a, Task 3: Monitoring Evaluation, on page 2 for additional details.

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

Sincerely,

Jeffrey G. Osborn  
License Compliance Supervisor  
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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

### 2015 Annual Report and 2016 Work Plan

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#### 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 2015 and a description of anticipated activities with funding to be provided during 2016. A table is provided at the end of this report that summarizes agency funding provided in 2015, anticipated activities and funding for 2016, and proposed activities for 2017.

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<sup>1</sup> 117 FERC ¶ 62,129 (2006)

<sup>2</sup> 123 FERC ¶ 62,100 (2008)

## Activity during the Previous Calendar Year 2015

### DUST ABATEMENT WORK –

Representatives of the NPS (Vicki Gempko and Jon Riedel) and Chelan PUD (Gene Yow) conferred via e-mail throughout the year, to discuss progress to date and next steps preparatory to further testing.

#### 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 combination of relatively high spring lake levels and early refill in 2015, and the limited site access resulted in limited opportunities for testing. Instead, efforts were devoted to obtaining approval for an access bridge and minor surface disturbance as would be caused by a roller with ridges. Concurrently, approval to seek water rights was sought.

#### LC04a, Task 3: Monitoring Evaluation

No monitoring was done in 2015 other than visual observations.

Monitoring for comparison with the SAIMP milestones is due at 10 and 20 years (in 2016 and 2026). The intent of the milestone monitoring is to demonstrate success in meeting dust reduction goals. The variability of conditions from year to year and the difficulty of working out issues of access and permission to perform ground-disturbing activities have left the NPS and Chelan PUD unprepared for that key monitoring in 2016. After consulting with Vicki Gempko and Jon Riedel of NPS who work on dust reduction, Vicki agreed that it would be more appropriate to postpone the milestone monitoring to 2018 and 2028.<sup>3</sup> We anticipate that the additional two years will allow us to address access and ground disturbance issues, and to prepare for a meaningful test of one of the dust abatement methods under consideration.

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<sup>3</sup> Per email communication dated April 21, 2016.

## STEHEKIN HABITAT WORK –

Representatives of the NPS (Vicki Gempko and Mignonne Bivin) and Chelan PUD (Von Pope) discussed progress to date and next steps regarding Stehekin habitat work.

### Riparian Zone Plan

On November 1, 2010, Chelan PUD filed a Riparian Zone 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>4</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.

On August 26, 2014, Chelan PUD submitted a “Request for Time Extension for the 2014 Technical Report and Revised Schedule for Future Reports” with the Commission. This requested was granted by the Commission on October 14, 2014 and extended the filing date for technical reports from November 6 to December 31 in years when reports are due. The first Riparian Zone Technical Report was filed on December 31, 2014, as required.

During the first quarter of 2015, the NPS potted seedlings and cuttings collected during the fall of 2014. During the second quarter of 2015, the NPS conducted monitoring for nesting bald eagles and osprey and conducted reed canary grass control efforts. During the 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2015, the NPS mapped habitat types, planted 324 native plants, produced 1,946 native plants representing 11 species and sowed seed to produce another 11,000 plants while managing over 3,300 plants at the Marblemount nursery. Additional photo points were established and habitat monitoring was also conducted in the fall of 2015.

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

Collected 5.75 oz of native seeds from 4 different species in 2015. That brings the total amount of seed collected since 2011 to 32.05 oz representing 12 native species.

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

In 2015, sowed 6.4 oz of native seed to produce 11,000 plants. NPS now has over 3,143 plants (including trees, shrubs and herbaceous plants) it is propagating for future planting in accordance with the Riparian Zone Plan.

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

No work was completed in 2015 to determine the feasibility of this project. There is concern that permitting this type of work may be very challenging.

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<sup>4</sup> 136 FERC ¶ 62,096

LC09c1 Task 1, Item 4: Contain Canary Grass

In 2015, a second plot (.31 acres) was sprayed with herbicides to reduce the cover of reed canary grass in accordance with the Riparian Zone Plan. The first test plot (386 sq. ft. sprayed in 2014) was sprayed for the second time in 2015.

LC09c1, Task 1, Item 6: Crew Lead

In 2015, Chelan PUD reimbursed the NPS crew lead for riparian habitat monitoring, plant collection and propagation, and report writing.

LC09c1, Task 1, Item 7: Plant Ecologist

In 2015, Chelan PUD reimbursed the NPS for Plant Ecologist time related to riparian zone monitoring, data summary, and project oversight.

LC09c1, Task 2 Item 3: Osprey and Eagle Surveys

Chelan PUD reimbursed NPS for bald eagle and osprey nest monitoring conducted in 2015. Two osprey nests were documented in 2015. At each site the nest pair successfully bred as young were observed in both nests. Fledging success was not determined. Only one adult bald eagle was observed during the nest occupancy surveys, no nest sites were documented in 2015.

***2015 Meeting Activity***

The NPS and Chelan PUD met on November 24, 2015, to review the work completed in 2015 and set the budget and schedule work to be completed in 2016.

## **Activity Planned for Calendar Year 2016**

### DUST ABATEMENT WORK –

In 2016, the NPS will continue to work on gaining access suitable for an ATV to the dust source areas on Stehekin Flats and gaining approval for minimal disturbance of the ground surface. Details of the 2016 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. The process of forming ridges will also result in some compaction of the surface soils.

To test the ridge-forming approach, an ATV will be used to pull a compacting roller modified to form ridges, or ridges may be formed over a small area by other means. Since access to the dust source area requires multiple channel crossings and avoidance of super saturated soils, a specific ATV-useable route must be identified.

Also, before testing either of these methods more extensively, it seems advisable to determine what 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 2016 will be directed toward identifying an improved access route to the dust source areas 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 2017.

#### 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 2016, the NPS plans to continue implementing the Riparian Zone Plan. Details of the 2016 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 2016.

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 2016, NPS plans to conduct a large planting effort with the plants raised and propagated from previous year's collections.

LC09c1, Task 1, Item 6: Crew Lead

Labor and oversight related to monitoring for the 2016 Riparian Zone Plan Monitoring Report.

LC09c1, Task 1, Item 7: Plant Ecologist

Labor and oversight related to monitoring and report writing for the 2016 Riparian Zone Plan Monitoring Report.

LC09c1, Task 2 Item 3: Osprey and Eagle Surveys

Monitoring is scheduled for the spring of 2016.

## **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 2016 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 2016 dollars using the CPI adjustment as of January 31, 2016, as outlined in Section 19.1 of the Settlement Agreement.

**LAKE CHELAN PROJECT NO. 637**  
**FUNDING PROVISIONS – YEAR 2015 SPENT – YEAR 2016 ACTIVITIES – YEAR 2017 PROPOSED ACTIVITIES**  
**2016 YEAR START**  
**April 2016**

AGMT ARTICLE	DESCRIPTION	2015 SPENT	2016 ACTIVITIES	ESTIMATED COSTS 2016	2017 PROPOSED ACTIVITIES	ESTIMATED COSTS 2017	BALANCE AVAILABLE AS OF JANUARY 2016 <sup>5</sup>
LC04a One Time (Combo)	NPS Stehekin Dust Abatement (SAIMP)	\$0.00	Task 1: Abatement.....	\$10,000.00	Task 3: Monitoring and Evaluation.....	\$4,287.05	Balance Available: \$172,932.18
LC09c1 (Combo)	NPS Stehekin Habitat (made part of SAIMP)	\$12,299.57	Task 1, Item 2: Propogate Plants ..... Task 1, Item 4: Contain Canary Grass ... Task 1, Item 5: Plant Nursery Stock ..... Task 1, Item 6: Crew Lead..... Task 2, Item 3: Osprey/Eagle Surveys...	\$24,000.00 \$1,000.00 \$8,500.00 \$16,880.00 \$3,400.00	Task 1, Item 2: Propogate Plants..... Task 1, Item 4: Contain Canary Grass ..... Task 1, Item 6: Crew Lead..... Task 2, Item 1: Annual Rip Veg Monitoring .. Task 1, Item 7: Plant Ecologist .....	\$6,568.11 \$1,000.00 \$16,880.00 \$21,123.12 \$3,000.00	Balance Available: \$78,340.99  2016 Contribution: \$13,173.62  Total with NPV: \$324,602.05
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	Balance Available: \$65,868.08
	<b>TOTALS</b>	<b>\$12,299.57</b>	<b>2016 Year Start</b>	<b>\$63,780.00</b>	<b>2017 Proposed</b>	<b>\$52,858.28</b>	

<sup>5</sup> For all measures: Balance Available – All contributions, including current year, minus net amount of expenditures.  
For measures with annual contributions: 2016 Contribution – 2016 contribution amount adjusted for CPI (0.12%).  
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.