

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

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April 26, 2017

**VIA ELECTRONIC FILING**

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

Re: **Lake Chelan Hydroelectric Project No. 637-043**  
**Article 403 – Stehekin Area Implementation Monitoring Plan**  
**2016 Annual Report and 2017 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. 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 2016 Annual Report and 2017 Work Plan to the Commission.

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

Sincerely,

  
Jeffrey G. Osborn  
License Compliance 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

### 2016 Annual Report and 2017 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 2016 and a description of anticipated activities with funding to be provided during 2017. A table is provided at the end of this report that summarizes agency funding provided in 2016, anticipated activities and funding for 2017, and proposed activities for 2018.

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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 2016

### 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 were under consideration for reducing windblown dust from Stehekin Flats. One was the creation of small ridges in the soil surface perpendicular to the prevailing wind direction. Consideration of this approach was 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 second option under consideration was use of an irrigation system to wet the surficial soils. Consideration of this approach was 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 combination of relatively high spring lake levels and early refill in 2016, and limited site access, resulted in limited opportunities for testing. Instead, efforts were devoted to identifying an alternative route for accessing the Flats with equipment such as a roller. NPS staff is now seeking permission from private property owners to use that route.

#### LC04a, Task 3: Monitoring Evaluation

No monitoring was done in 2016 other than visual observations. No dust events were observed in 2016.

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 –

In 2016, representatives of the NPS (Stacy McDonough, Mignonne Bivin, and Vicki Gempko,) 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 2016, the NPS installed 3,502 plants at STEHOL-Site 02 (including 860 shrubs). This 0.28-acre site was previously treated with herbicide in spring of 2015. Also at STEHOL-Site-02, a total of 3 1-m direct seed plots were established and 4 monitoring transects were established and monitored in 2016. At STEHOL-Site 01 the 2015 plantings were monitored and 4 new live stake plots were established. A total of 7,359 plants were transplanted in the greenhouse at the Marblemount nursery (including trees, shrubs, herbaceous, and wetland species). During the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2016 the NPS conducted monitoring for nesting bald eagles and osprey.

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

The NPS collected 19.26 oz of native seeds from 11 different species including trees, shrubs, herbaceous, and wetland species during 2016. That brings the total amount of seed collected since 2011 to 51.31 oz representing 12 native species.

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

In 2016, the NPS sowed 8.9 oz of native seed to produce 10,000 plants in 2017. 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 2016 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 2016, the NPS selected a site for herbicide treatment in 2017 to allow the planting of conifers in 2018 to further increase vegetative structure at the site. This new area is adjacent to an existing stand of conifers.

LC09c1, Task 1, Item 6: Crew Lead

In 2016, 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 2016, 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 during 2016. Two osprey nests were documented in 2016. At each site the nest pair successfully bred and fledged one juvenile. Only one adult bald eagle was observed during the nest occupancy surveys, no occupied nests were documented in the historical site during 2016.

***2016 Meeting Activity***

The NPS and Chelan PUD met via conference call on February 10, 2016 to discuss the project progress and work planned for 2016. The NPS and Chelan PUD also met on November 30, 2016, to review the work completed in 2016 and set the budget and schedule work to be completed in 2017.

## **Activity Planned for Calendar Year 2017**

### DUST ABATEMENT WORK –

In 2017, the NPS will continue to work on gaining access to the dust source areas on Stehekin Flats suitable for an ATV, and gaining approval for minimal disturbance of the ground surface. Details of the 2017 work are provided below:

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

Two dust abatement options are still under consideration. These are molding of ridges in the soil surface to decrease the ability of wind to pick up soil particles, and irrigation to maintain high enough moisture content in the surface soils to resist movement of the surface soil particles.

To test the ridge-forming approach, an ATV will be used to pull a 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, approval must be gained for a specific ATV-useable route must be identified.

Also, before testing either of these methods more extensively, it seems advisable to determine what restrictions apply to disturbance of soils at the sites of interest. The process of forming ridges will result in some compaction and reshaping of the surface soils, so this level of disturbance must be permissible for the method to be acceptable. For this reason, most of the efforts of the NPS and Chelan PUD in 2017 will be directed toward gaining permission to use an improved access route to the dust source areas and determining the limits on soil disturbing activities on Stehekin Flats.

#### 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 –

#### Riparian Zone Plan

In 2017, the NPS will continue implementing the Riparian Zone Plan. The second Riparian Zone Plan Technical Report will be completed and filed with the FERC by December 31, 2017. The 2017 Technical report will summarize progress made since the first Riparian Zone Plan filed in 2104. Details of the 2017 work are provided below:

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

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

LC09c1, Task 1, Item 2: Plant Propagation

Seeds and cuttings collected will be propagated in the NPS greenhouse facility in 2017.

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

Reed Canary Grass Control will be conducted 2017.

LC09c1, Task 1 Item 5: Plant Nursery Stock

In 2017, 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 2017 Riparian Zone Plan Technical Report.

LC09c1, Task 1, Item 7: Plant Ecologist

Labor and oversight related to monitoring and report writing for the 2017 Riparian Zone Technical Report. Summarizing and compiling data from 2015-2017 to develop the 2017 Riparian Zone Plan Technical Report.

LC09c1, Task 2 Item 1: Annual Riparian Veg Monitoring

Summarizing and compiling 2015-2017 monitoring data to develop the 2017 Riparian Zone Plan Technical Report.

LC09c1, Task 2 Item 3: Osprey and Eagle Surveys

Bald Eagle and Osprey nest monitoring is scheduled for the spring and summer of 2017.

## **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 2017 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 2017 dollars using the CPI adjustment as of January 31, 2017, as outlined in Section 19.1 of the Settlement Agreement.

**LAKE CHELAN PROJECT NO. 637**  
**FUNDING PROVISIONS – YEAR 2016 SPENT – YEAR 2017 ACTIVITIES – YEAR 2018 PROPOSED ACTIVITIES**  
**Calendar Year Beginning 2017**  
**April 2017**

AGMT ARTICLE	DESCRIPTION	2016 SPENT	2017 ACTIVITIES	ESTIMATED COSTS 2017	2018 PROPOSED ACTIVITIES	ESTIMATED COSTS 2018	BALANCE AVAILABLE AS OF JANUARY 2017 <sup>5</sup>
LC04a One Time (Combo)	NPS Stehekin Dust Abatement (SAIMP)	\$751.50	Task 3: Monitoring and Evaluation..... Task 1: Abatement.....	\$4,287.05 \$15,000.00	Task 2: Airborne Dust Monitoring	\$17,285.00	Balance Available: \$174,350.15
LC09c1 (Combo)	NPS Stehekin Habitat (made part of SAIMP)	\$39,939.29	Task 1, Item 1: Collect Plants..... Task 1, Item 2: Propagate Plants .... Task 1, Item 4: Canary Grass ..... Task 1, Item 5: Plant Nursery ..... Task 1, Item 6: Crew Lead ..... Task 1, Item 7: Plant Ecologist..... Task 2, Item 1: Annual Rip Veg..... Task 2, Item 3: Osprey/Eagle .....	\$500.00 \$14,000.00 \$0.00 \$9,000.00 \$17,000.00 \$4,450.00 \$21,123.12 \$3,400.00	Task 1, Item 4: Canary Grass Task 1, Item 6: Crew Lead ..... Task 3: Monitor LWD .....	\$23,593.12 \$17,000.00 \$11,207.00	Balance Available: \$52,225.17  2017 Contribution: \$13,339.60  Total with NPV: \$299,197.20
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: \$66,698.02
	<b>TOTALS</b>	<b>\$40,690.79</b>	<b>2017 Year Start</b>	<b>\$88,760.17</b>	<b>2018 Proposed</b>	<b>\$69,085.12</b>	

<sup>5</sup> For all measures: Balance Available – All contributions, including current year, minus net amount of expenditures.  
For measures with annual contributions: 2017 Contribution – 2017 contribution amount adjusted for CPI (1.26%).  
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.