**Lower Granite RSW Improvement (P2 404508)**

Multi-Year Plan

20 JUL 2017

**1. Project Information**

**Purpose/Objective.** The purpose of this project is to improve the stow operation and reliability for the Removable Spillway Weir (RSW) in Spillway 1 at Lower Granite Dam.

**Description. T**he RWS was designed to be stored (“stowed position”) by rotating on the upstream hinge so that the weir portion could be lowered to the bottom of the reservoir. The LLA RSW was successfully commissioned in 2002 with control over both stow and deploy sequences. However, the initial design created a rapid descent during the stow sequence, causing a substantial risk that some components of the weir could be damaged. If damaged, it may not be possible to return it to service. Several adjustments and modifications have been made in an attempt to decrease the descent of RSW during the stow sequence. Thus far all of adjustments and modification have not been successful and risk of damage to the RSW when stowed remains.

The risks of not addressing the RSW’s deficiencies are two-fold. First, if the RSW were stowed and subsequently damaged it could be two or three years without a functional spillway weir at Lower Granite dam. This could have detrimental effects on salmon and steelhead passage survival. Second, if the RSW cannot be efficiently and effectively stowed due to possible damage to the RSW, installing the bulkhead for emergency tainter gate repairs increases the safety risk of personnel at the project. A reliable RSW is needed to effectively pass salmon and steelhead over Lower Granite Dam, and to ensure that project staff can provide the necessary safe clearances to safely install the bulkhead to repair and maintain the spillway tainter gate.

Project goals are to:

a) develop 30% plans and specifications for a design-build contract to improve the RSW operation to safely and reliably stow the RSW;

b) develop the acquisition package for the design build contract; and

c) manage the design build contract during execution.

After the 30% P&S have been prepared by an AE firm, senior management will determine if the estimated cost to repair the RSW is justified, in light of other possible alternatives such as 1) install the Goose TSW at LLA in Spillbay 2; or 2) as a contingency, merely prepare P&S to install the Goose TSW at LLA in Spillbay 2, and only award the work if/when the RSW becomes damaged.

**2. Major Activities/Tasks -**

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| --- | --- |
| Milestone | Date (Mo/Yr) |
| Design Phase   * 30% design; prepare P&S and part 1 of design-build acquisition * Design-Build Construction contract award (part 2) * Contractor completed design | 3/2018  9/2018\*  7/2019 |
| Construction Phase   * Construction start * Construction complete | 8/2019  3/2020 |

**3. Cost Estimate**

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| --- | --- | --- |
| Activity | **FY17 Final Obligations** | **FY18** |
| TOTAL | $427,531 | $200,000 |

**4. Information & Issues.** Award deferred to FY19\*. The PIT tag monitoring antennae system is expected to be operational by spring 2020 spill passage season.

**5. RPA Action - NA**