**464431 Lower Monumental FGE - Intake Headgate Raised vs Lowered**

CRFM Work Plan

June 2017

**1. Project Information**

* **Purpose/Objective**. Estimate Fish Guidance Efficiency (FGE) at Lower Monumental Dam with intake head gates in a raised versus lowered position to determine if gates could be returned to their original design position and meet juvenile survival performance standards.

**Description**. Turbine intake gates serve multiple purposes such as closing off the turbine unit for repairs or in emergency situations. A standard gate closure time of 10 minutes was established as the maximum acceptable closure time in case of emergency. Turbine intake head gates were raised in the early 1990’s to improve fish guidance efficiency (FGE) at Snake River dams. In doing so, the emergency gate closure requirements of EM1110-2-4205 to enable closure within 10 minutes cannot be met. Alternatives to meet emergency closure criteria and maintain FGE include modification of the head gate and/or the gate hoist system, or lowering the existing gates to the design stored position. Past studies were conducted nearly 30 years ago and screen configurations and project operations have since changed. This study is to determine what effects on FGE will occur if the gates are returned to their as-designed position. Injury comparison within the gatewell for tested conditions may also be investigated.

**2. Major Activities/Tasks**. FY17/FY18 – MIPR package preparation, MIPR obligation. FY18 - Coordination with operating project on unit schedules and other project related activities, scheduling diving for equipment deployment, MIPR administration. FY19 – report reviews, equipment removal, project closeout.

**3. Cost Estimate**. FY17 Final Obligations - $596,379

FY18 Budget - $35,000

**4. Information and Issues**.