**USACE Portland District (NWP) FFDRWG Update Form**  
**June 8, 2016**

**PROJECT INFORMATION**

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| Project Title | Bonneville Dam Spillway Gate Repair Pit Improvements |
| SCT Reference Number |  |
| Project Manager (PM) | Matt Cutts (NWP, 503-808-4697) |
| Technical Lead (TL) | Michelle Rhodes (NWP, 503-808-4853) |
| Biologist/Coordination | Jon Rerecich (NWP, 503-808-4779) |

**PROJECT DESCRIPTION**

This is an O&M funded project. The purpose of the Spillway Gate Repair and Storage Pits Improvements Project is to provide a record of design decisions, assumptions, and methods related to the upgrade of the Bonneville Spillway Gate Repair and Storage Pits, as described in the Project Charter No. 2014-06 to meet the Interim Risk Reduction Measures (IRRMs) which will provide safe and adequate facilities for performing maintenance on and storage of the spillway gate sections.

Upgrades to the Gate Repair and Storage Pits will allow maintenance on and storage of the spillway gate sections. Gate repairs are critical to restore original design levels of service to the Spillway.

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**PROGRESS AND KEY ISSUES (List)**

The upgraded work will include the following:

New Features

* hatch cover drainage system - The Operations staff will use sealing calk on the hatch cover joints.
* seismic gate stabilization improvements
* grated walkways/work platforms
* hoists
* heating and ventilation
* accessory compressed air
* painting of walls
* sump system
* lighting system
* new electrical receptacles
* new windows

The majority of this work is in the Gate Repair Pit. Minor improvements are required for the Gate Storage Pit.

Modified Features

* electrical wiring and lighting systems

Removed Features

* existing HVAC

**CURRENT SCHEDULE**

ACTIVITIES FOR FY16:

* Submitted FY18 funding request, though NWP plans to prioritize a project to address the subsidence in the parking area downstream of the dam on Cascades Island ahead of the Bonneville Spillway Gate Repair and Storage Pits Improvement project.
* Completion of 90% design.

PROPOSED ACTIVITIES FOR FY17:

* Awaiting funding.

**FFDRWG REVIEW NEEDED AT MEETING? (If YES, list discussion topics below)**

Sound pressure levels were tested at the closest point of the Cascades Island Fish ladder to the gate repair pit door to determine if any noise could be measured. Noise impacts testing consisted of activities that may occur during construction.

Sound Pressure level testing began at approx 0945 Mar 7, 2016

Attendees on site: Jon Rerecich, Andrew Derugin, James Ediger, Jason Hill, Carl Keef, and Bill McKay.

SPL unit is a 3M Quest Noise Pro dosimeter S/N NPK100021. It was calibrated immediately prior to testing at 114dB with the supplied calibration source.

Work processes (listed below) were applied for sufficient duration that sound pressure levels (SPL’ s) stabilized at the test location approx 60 feet from the repair pit access door at the Cascades Island fish ladder rail located upstream of the PIT building at the north end of the spillway.

Test Results:

* Background levels away from fish ladder………………………65 dB
* Fish ladder only………………………………………………………………83 dB
* Conversation at the fish ladder (nom 2’ from microphone)……………………………………………..…………………..92 dB
* Scarfing with diesel powered welding machine…………….85 dB (diesel unit was approx 35’ from microphone; scarfing process was inaudible over background)
* Saw cutting………………………………………………………………………83 dB (inaudible over background/fish ladder)
* Roto Hammer………………………………………………………………...83dB (inaudible over background/fish ladder)
* Hammering (10 lb hammer driven by a young strong man on the gate in repair pit .……………………………………………………………………….89 dB
* OPTION: 30T crane across spillway and R/R access hatches…………………………………………………………………………….83dB (inaudible over background/fish ladder)

Processes took place inside the repair pit with the top deck installed and the bottom door open. SPL was checked at locations satisfactory to all involved; nom 60ft from gate repair pit access door at closest point to fish ladder.

As noted above, the *highest* SPLs recorded were from conversation at the fish ladder.

Testing was completed at approx 1100 hrs on Mar 7 2016.