**USACE Portland District (NWP) FFDRWG Update Form**  
**13 August 2014**

**PROJECT INFORMATION**

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| Project Title | Lamprey Passage Structure (LPS) Development and Improvements |
| SCT Reference Number |  |
| Project Manager (PM) | Gail Saldana (NWP, 503-808-4781) |
| Technical Lead (TL) | Seth Stevens (NWP, 503-808-4849) |
| Biologist/Coordination | Sean Tackley (NWP, 503-808-4751) |

**PROJECT DESCRIPTION**

This project consists of the design and construction of several new LPSs at BON and JDA and miscellaneous improvements to existing LPSs systems.

Specific tasks (pending funding availability and prioritization) include the following:

1. Design and build LPSs that address known problem areas and extend existing LPS to forebay where appropriate:
   1. BON Bradford Island Fish Ladder – B-Branch Transition Pool to existing LPS (forebay). Include ramp near A-Branch/B-Branch junction pool to collect A-Branch lamprey.
   2. BON Cascades Island Fish Ladder – Auxiliary Water Supply Channel
   3. BON Cascades Island Fish Ladder – New ramp to existing LPS, to be located along south wall of the fishway entrance area.
   4. BON Washington Shore Fish Ladder – Channel between UMT junction and count station, as a means of reducing the use of the serpentine weir section.
   5. BON Washington Shore Fish Ladder – Extend new lamprey flume system LPS to forebay; including new ramp(s) in transition pool of ladder.
   6. JDA North Fish Ladder – Extend entrance LPS to forebay.
2. Complete minor modifications to existing LPSs to improve O&M functionality:
   1. Inspect structures and modify as necessary to minimize risk of structural failures.
   2. Modify or replace pumps and pump intakes, as necessary, to meet juvenile salmon fry criteria, accommodate maintenance needs, and provide sufficient water supply for systems.
   3. Improve counting systems for existing LPSs.
   4. Improve electrical and plumbing systems (as needed) for existing LPSs.

The current strategy for accomplishing these tasks is to develop a single DDR for all new LPSs, and to develop separate Plans & Specs packages that correlate with construction seasons. It is anticipated that all of the design will be performed by USACE staff, with support from NOAA Fisheries (Mary Moser/Kinsey Frick) and the University of Idaho (Chris Caudill/Ralph Budwig) regarding design criteria.

**CURRENT SCHEDULE**

* DDR for all new LPSs and modifications to existing LPSs: AUG 2014 – AUG 2015
* Plans & Specs for BON Cascades Island and WA Shores Ladders new LPSs and misc. improvements to existing LPSs, including (NEW) additional venting of WA Shore NDE Lamprey Flume System: FEB 2015 – MAR 2016
* Construction for BON Cascades Island and WA Shores Ladders new LPSs and misc. improvements to existing LPSs (including LFS venting solution): DEC 2016 – FEB 2017
* Plans & Specs for BON Bradford Island and JDA North Fish Ladders new LPSs and misc. improvements to existing LPSs: FEB 2016 - MAR 2017
* Construction for BON Bradford Island and JDA North Fish Ladders new LPSs and misc. improvements to existing LPSs: DEC 2017 - FEB 2018

**PROGRESS AND KEY ISSUES (List)**

1. The project is currently in the scoping phase, including development of scopes, schedules, and budgets.

2. Site visits were conducted to familiarize the PDT with LPS design, identify needed modifications to existing LPSs, and discuss routing with Bonneville (BON) Project staff. This information will be used to develop initial scopes and basic routing.

3. Brent Welton (mechanical) is to develop a “parts library” of climbing flumes, traversing flumes, rest boxes, and other components to simplify the design process. The initial library should be complete by the end of November 2014.

3. As part of their research contracts for FY14, NOAA and the University of Idaho (UI) were tasked in with supporting this design effort. Tackley has scheduled an initial conference call for August 25 to discuss information needs, project schedule(s), etc. The design will require substantial input regarding biological, hydraulic and operational criteria in the early design phase to facilitate completion of the 30% DDR.

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

No review needed at this time. FFDRWG input will be requested at the 30% DDR design phase. Considerations that will require FFDRWG discussion will include (but aren’t limited to):

* Allowable LPS ramp footprint(s) in various ladder sections: Transition pools at WA Shore and Bradford Island ladders, channel between UMT junction and count station at WA Shore Ladder, downstream of Bradford Island Ladder count station.
* Assuming expansion of LPSs will require increased pump capacity, location and noise considerations will require discussion.
* LPS exit outfalls will presumably increase discharge to accommodate increased capacity. What level of discharge is acceptable?
* Access to LPSs that are below deck level will require placement of ladders and platforms/walkway grating over the fishway. The scope and scale of access is to be determined, but will require consideration of any potential impacts on migrating fish.