# Fish Passage Plan (FPP) Change Request Form

**Change Form # & Title**: 19IHR002 – Lamprey Structure Operation

**Date Submitted**: 17 Dec 2018

**Project**: Ice Harbor Dam

**Requester Name, Agency**: Steve Juhnke, USACE NWW District Office

**Final Action:**

**FPP Section**: IHR section 2.4.2 – Adult Facilities, Fish Passage Season (Mar 1-Dec 31). Add new section 2.4.2.8. South Shore Entrance (SFE-2)

**Justification for Change**: A new lamprey passage structure will be installed in SFE-2 during the in-water work window 2018-19. The structure will be anchored to the fishway floor, with a removable entrance component deployed in the bulkhead slot. This entrance is not normally used as a fish ladder entrance, but is kept in a standby condition in case SFE-1 entrance is rendered unusable. Normal condition is telescoping weirs fully blocking flow and bulkheads removed from slot. During the adult lamprey passage season (1 July to 1 Oct) the lower leaf will be suspended to provide a 12” gap, allowing flow to pass through the lamprey passage structure.

**Proposed Change**: Currently there is no FPP language to prescribe operation of SFE-2:

**2.4.2.8. South Shore Entrance (SFE-2).**

**i.** Operate entrance furthest from powerhouse for adult lamprey passage from 1 July to 1 October.

**ii.** To facilitate lamprey passage, the telescoping weir top leaf elevation shall be set to approximately 358.34 ft. The lower leaf elevation will thus be approximately 333.25’, which will provide a 1.25’ opening between the lower leaf and concrete sill. The aluminum entrance structure, which provides a 1’ opening and vertical salmon exclusion bars spaced at 1.5”, will allow for lamprey entrance into the fish ladder by reducing flow velocities to roughly 2-4 fps. There will be no flow over the top of the telescoping weirs in this configuration.

**iii.** In the event that SFE-1 weir experiences operational problems during the adult lamprey passage period, SFE-2 shall be lowered to shut off lamprey passage and operated to facilitate salmon passage. Once SFE-1 is back in operation, SFE-2 shall be reverted back to lamprey passage operations.

**Comments**:

 2/7/19 FPP Meeting: Dave Swank, USFWS, proposed changing the start date from July 1 to June 1 to benefit earlier-migrating lamprey. Chris Peery will check with Steve Juhnke and get back to FPOM.

 2/7/19 Ken Fone, via email: “From a project operations standpoint, I don’t see a problem with that.”

 2/8/19 Steve Juhnke, via email: “So the thought process for selecting July 1st was: In looking at run timing, only 5 times in the last 20 have we attained the leading 5% of run at HLD by July 1st. We need to consider salmonids when selecting a best date to begin operation. If we wait until July we reduce the likelihood (or instances) of interactions with Chinook and Sockeye.”

 2/8/19 Chris Peery, via email: “On average, 19% (189/977) of the sockeye run passes in June. In 2018, 32% (121/382) of the sockeye salmon passed Ice Harbor Dam in June. “

**Record of Final Action**: