

Adult Fish Passage Facilities – 2018-2019 Winter Maintenance Schedule

U. S. Army Corps of Engineers

Walla Walla District

Winter fishway maintenance period occurs from **1 January to 28 February**. In general, each fishway will be taken out of operation for one month during which the alternate fishway will remain in service. All dates during the maintenance period are tentative and subject to change.

MCNARY DAM¹ - Washington Shore Fishway

1. **1 January:** Place ladder on orifice flow. Wasco PUD will shut down.
2. **2 January:** Place exit and conduit stoplogs; Wasco PUD shuts down bypass flow; project dewateres the WA fish ladder down to the tailwater level.
3. **3-22 January,** Dewater to entrance pool. Salvage fish.
4. Grating inspection and repairs.
5. GM for maintenance. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1. Clean out exit sensor wells. Work with PSMFC and University of Idaho to get clearance to examine PIT tag equipment.
6. Electrical will cut over to new power for fish ladder.
7. **22 January:** Resume normal operation of the ladder and small hydro/auxiliary water system.

MCNARY DAM¹ - Oregon Shore Fishway

1. **23 January, (or as soon as Washington Ladder is back in operation):** Shut down AWS Fish Pumps then place the ladder on orifice flow.
2. **January 24:** Use ladder crane to install the exit logs and juvenile passage stop logs. Perform physical inspection of ladder to tail water.
3. **25 January to 26 February:** install stoplogs to isolate south entrance pool for dewatering. Pump down entrance area.
4. Clean out exit sensor wells.
5. Replace count station staff gauges.
6. Switch over to EAP lubricants.
7. **14 February:** Return ladder to tailwater level.
8. Swap 3 floating orifices. If applicable that we have 3 rehabbed floating orifices. Complete PMs, upgrades and repairs. Tilting weir rebuilds. Fish pump PMs will be done. Help PSMFC & University of Idaho to inspect PIT tag antennas. Try to complete a camera inspection of the grating.
9. **28 February:** Resume normal ladder flow and pump operation by close of business.

ICE HARBOR DAM¹ - North Shore Fishway

1. **9 February:** Shut down the AWS pumps.
2. **11-28 February:** Dewater the fish ladder.
3. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
4. Inspect the collection channel by video inspection with the ROV. ¹

¹ Methods used in the past for inspecting collection channels at all five dams are shown in Table 1.

5. Perform maintenance on the AWS pumps.
6. Install pipes to house and protect temperature probes, as needed.
7. Replace damaged/missing staff gauges as logistically feasible.
8. Maintain adult PIT tag system as required. Coordinate with PSMFC.
9. Maintain half-duplex PIT (lamprey) antennas. Coordinate with University of Idaho.
10. **28 February 28:** Resume normal operation of the AWS pumps on.

ICE HARBOR DAM¹ - South Shore Fishway

1. **1 January:** Shut down the AWS pumps.
2. **2 January 8 February:** Dewater the fish ladder from for maintenance.
3. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
4. Inspect the collection channel by dewatering and entering the channel. ¹
5. Perform maintenance on the AWS pumps.
6. Install pipes to house and protect temperature probes, as needed.
7. Replace damaged/missing staff gauges as logistically feasible.
8. Contract installation of lamprey passage structure at SSE-2.
9. Maintain adult PIT tag system as required. Coordinate with PSMFC.
10. Maintain half-duplex PIT (lamprey) antennas. Coordinate with University of Idaho.
11. Install Okum in leaking ladder joints.
12. **8 February:** Resume normal operation of the AWS pumps.

LOWER MONUMENTAL DAM¹ - North Shore Fishway

1. **1 January:** Shut down the AWS pumps.
2. **3-31 January:** Dewater the fish ladder for maintenance.
3. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
4. Inspect the collection channel by dewatering.
5. Perform maintenance on the AWS pumps.
6. **31 January:** Resume normal operation of the AWS pumps on.

LOWER MONUMENTAL DAM¹ - South Shore Fishway

1. **1-28 February:** Dewater the fish ladder for maintenance.
2. Complete some grout replacement in channel.
3. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
4. Inspect the collection channel by dewatering.
5. **28 February:** Return fishway to operation.

LITTLE GOOSE DAM¹

1. **7 January:** Shut down the AWS pumps.
2. **2 January – 28 February:** Dewater the fish ladder for maintenance.
3. Close fish entrance weirs after fish ladder dewatered.
4. Dewater collection channel for inspection and maintenance.
5. Inspect and replace lost fall-out fence sections.

¹ Methods used in the past for inspecting collection channels at all five dams are shown in Table 1.

6. Replace the adult fish Channel Grating.
7. Repair Ladder Joint seals.
8. Repair North Shore Entrance Slack Cable Switches.
9. Calibrate adult fishway system.
10. Calibrate adult fishway.
11. Replace seals on fish channel bulkheads.
12. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
13. **28 February:** Resume normal operation of the AWS pumps.

LOWER GRANITE DAM¹

1. **1 January:** Shut down the AWS pumps.
2. **2 January – 21 February:** Dewater the fish ladder.
3. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
4. Inspect the collection channel by dewatering.
5. Perform maintenance on the AWS pumps.
6. Inspect the adult fallout fence and repair as needed.
7. Routine maintenance of adult trap.
8. Commission water supply pipe to adult trap (part of phase 1).
9. JFF bypass construction, programing, cleanup primary dewaterer (phase 1a).
10. Inspect fish ladder PIT tag arrays.
11. Relocate/ upgrade/repair/ north powerhouse collection channel, south shore tailrace, and Northshore tailrace staff gauges.
12. Install spillway 1 PIT tag antenna conduit and spillgate 1 seal repair.
13. **No later than 28 February:** Resume normal operation of the AWS pumps.

Table 1. Methods used to inspect adult fishway collection channels during past winter maintenance periods, compared to the upcoming winter period.

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
MCN WA Shore	Camera/ Inspection	Diver/ Inspection	Camera/ Inspection	Camera/ Inspection	Diver/ Inspection	Dewater	Dewater
MCN OR Shore	Diver/ Inspection	Camera/ Inspection	Camera/ Inspection	Camera/ Inspection	Diver/ Inspection	Dewater / Camera	Dewater / Camera
IHR North Shore	ROV	ROV	Dewatering	ROV	ROV	Dewater	Dewater
IHR South Shore	ROV	ROV	Diver	Dewatering	ROV	ROV	ROV
LMO North Shore	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater	Dewater
LMO South Shore	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater	Dewater
LGS	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater	Dewater
LWG	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater	Dewater

¹ Methods used in the past for inspecting collection channels at all five dams are shown in Table 1.