Adult Fish Passage Facilities – 2017-2018 Winter Maintenance Schedule

U. S. Army Corps of Engineers
Walla Walla District

MCNARY DAM[1] - Washington Shore Fishway

1. **Monday, January 1:** Place ladder on orifice flow. Wasco PUD will shut down.
2. **Tuesday, January 2:** Place exit and conduit stoplogs; Wasco PUD shuts down bypass flow; project dewaters the WA fish ladder down to the tailwater level.
3. **Wednesday, 3 January**, Dewater entrance pool and salvage fish. Grating inspection.
4. **Thursday, 4 January**, Make repairs of diffuser grating if needed.
5. **January 2 to January 31** GM for maintenance. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1. At exit, COE works on Oil Accountability Program by rebuilding six tilting weirs. Clean out exit sensor wells. Work with PSMFC and University of Idaho to get clearance to examine PIT tag equipment.
6. Resume normal operation of the ladder and small hydro/auxiliary water system by **Wednesday, January 31.**

MCNARY DAM[1] - Oregon Shore Fishway

1. **Thursday, February 1 (or as soon as Washington Ladder is back in operation):** Shut down AWS Fish Pumps then place the ladder on orifice flow.
2. **Friday, February 2:** Use ladder crane to install the exit logs and juvenile passage stop logs. Close tainter valve. Perform physical inspection of ladder to tailwater.
3. **Saturday February 3 to February 5:** install stoplogs to isolate south entrance pool for dewatering. Pump down entrance area. Clean out exit sensor wells. Replace count station staff gauges.
4. **February 5 to February 26:** Return ladder to tailwater level. 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.
5. Resume normal ladder flow and pump operation by close of business **Tuesday, February 27.**

ICE HARBOR DAM[1] - North Shore Fishway

1. Shut down the AWS pumps on the morning of **February 4.**
2. Dewater the fish ladder from **February 5 – February 28.**
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. Maintain adult PIT tag system as required. Coordinate with PSMFC.
8. Maintain half-duplex PIT (lamprey) antennas. Coordinate with University of Idaho.
9. Resume normal operation of the AWS pumps on **February 28.**

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

ICE HARBOR DAM[1] - South Shore Fishway

1. Shut down the AWS pumps on the morning of **January 1**.
2. Dewater the fish ladder from **January 3 – February 3** for maintenance.
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]
5. Perform maintenance on the AWS pumps.
6. Install pipes to house and protect temperature probes, as needed.
7. Contract installation of trolley/fish release pipes in tail race between each main unit and at south shore AWS pump intake.
8. Maintain adult PIT tag system as required. Coordinate with PSMFC.
9. Maintain half-duplex PIT (lamprey) antennas. Coordinate with University of Idaho.
10. Install Okum in leaking ladder joints.
11. Resume normal operation of the AWS pumps on **February 3**

LOWER MONUMENTAL DAM[1] - North Shore Fishway

1. Shut down the AWS pumps on the morning of **January 1**.
2. Dewater the fish ladder from **January 3 – January 31** 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. Resume normal operation of the AWS pumps on **January 31**.

LOWER MONUMENTAL DAM[1] - South Shore Fishway

1. Dewater the fish ladder from **February 1 – February 28** 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.

LITTLE GOOSE DAM[1]

1. Shut down the AWS pumps on the morning of **January 2, 2018**.
2. Dewater the fish ladder from **January 2** through **February 16, 2018** for maintenance.
3. Close fish entrance weirs after fish ladder dewatered, **January 2, 2018**.
4. Dewater collection channel from **January 2 – February 16, 2018** for inspection and maintenance.
5. Inspect and replace Lost Fall out Fence sections.
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. Survey adult fishway entrance elevations.
11. Replace seals on fish channel bulkheads.
12. Install adult window cleaning brushes **January 2-Febuary 16, 2018**.

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

13. Complete winter maintenance according to the Fish Passage Plan, Section 2.3.2.1.
14. Resume normal operation of the AWS pumps on **February 17, 2018**.

LOWER GRANITE DAM[1]

1. Shut down the AWS pumps on the morning of **January 1, 2018**.
2. Dewater the fish ladder from **January 3, 2018 – February 28, 2018**.
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. Install water supply pipe to adult trap (part of Phase 1).
9. JFF bypass commissioning **Jan 1-Feb 28**-primary dewaterer ladder auxiliary (phase 1a).
10. Permanently close NPE 3 and NSE 3 **Jan 15-Feb 22**.
11. Inspect/upgrade upper fish ladder PIT tag arrays.
12. Install PIT tag antennas at adult trap return loop exit gate.
13. Resume normal operation of the AWS pumps no later than **February 28, 2018**.

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

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
MCN WA Shore	Camera / Inspected	Camera/ Inspection	Diver/ Inspection	Camera/ Inspection	Camera/ Inspection	Diver/ Inspection	Dewater
MCN OR Shore	Camera/ Inspection	Diver/ Inspection	Camera/ Inspection	Camera/ Inspection	Camera/ Inspection	Diver/ Inspection	Dewater / Camera
IHR North Shore	Dewatering	ROV	ROV	Dewatering	ROV	ROV	Dewater
IHR South Shore	ROV and diver	ROV	ROV	Diver	Dewatering	ROV	ROV
LMO North Shore	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater
LMO South Shore	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater
LGS	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater
LWG	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewatering	Dewater

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