**Draft 1**

**JOHN DAY DAM FISHWAYS’ ANNUAL MAINTENANCE SCHEDULE**

**WINTER 2020/2021**

**North Fish Ladder, upper – Dewater Dec. 02, ’20**

• PM count station and exit weirs - JDM & E

• Update light fixtures and install emergency lights at the Counting Station – JD Electrical

• Adjust window/crowder brush to get closer to the CS window in Auto

North Entrance

• LPS – pull and inspect water supply piping and pumps.

• AWS pumps inspection & annual maintenance (year round) JDM & E

• Entrance Computer System & sensors PM – JDE

• Fix dewatering pump # 7- JDM

• Fix and reinstall pump 4 - JDM

• Leaking Butterfly Valves (AWS Pumps) repair (3 @ $ 10K) – JDM

• Inspect and service two AWS pump

• PMs of entrance sluice gates 1-8 – JDM

• Variable width weir front plating replacement

**SMF - Dewater Dec. 1, ‘20 – Feb.22,’21**

 (Dewater earlier in case of an inclement/winter weather forecast)

• Design a better bottom seal/ boot on the Switch Gate (last winter’s work didn’t succeed): to minimize water leaks and potential for small fish getting stuck underneath – Engineering and Mechanical (TR has been already submitted.)

• Complete the multi-year SCADA PLC updates to have all alarms and functions working properly – JD Electrical and Engineering.

• PMs and cleanup including Screen Cleaner and calibrate weirs– JDM & E

• Seal leaking expansion joints inside of the Elevated Chute – optional since they don’t leak a lot.

* Replace blown plug under grating on W end of PDS

**JBS Collection Channel - Dewater Jan. 22 – Feb.22, ‘21**

• Install STSs at MUs 1-4 by February28 and the remaining ones by March 30.

• First joint downstream of the TG needs the redesigned cover plates and recessed concrete to fit them properly within the wall – JD Mechanical, TR has been already submitted.

• Inspect CC conduit’s spalling & structural integrity – JD Eng. & Structural

• Inspect all orifices/ hardware – JD Mechanical

• 16 B orifice air leak.

• Search for all metal strips/brackets to assure their structural integrity- JD Fish

• PM JBS Tainter gate –JDM & JDE

**South Turbine Bulkhead Install - ROV if necessary Jan. 12, ‘21**

• AWS turbines 2/3 inspections

• Inspect inside of AWS Turbines’ penstock? – JDM and JD Engineering

**South Fish Ladder, upper - Dewater Jan 11 – Feb. 25, ‘21**

• PM counting station equipment and exit sills (JDM,JDE)

• Fix leaking expansion joints – JD Mechanical or contract by JD Engineering

• Count station Lamprey trap modifications (tentative)

**South Entrance, Collection channel - Dewater Jan. 12, ‘21**

• Inspect all gratings and fix deficiencies if found. A few grating segments on the south end of CC showed some wear from the man lifts used there in 2013; JD Structural inspected/scoped in 2014- JD Structural

• 90 degrees bend wall erosion – needs to be fixed before we have a landslide into Fishway’s channel – repair contract by JD Engineering!

• Inspect new SE1 weir; check guides for wear from the stainless steel wheels (TD had bad/costly experience with theirs!) – JD Structural

* Floating orifices

• PM SE1, NE1/2 entrance weirs –JDM&E

• Relocate SE1 tailrace sensor (TW)

• Inspect diffuser valves/sluice gates on open diffusers only (ask Fisheries for details)- JDM

• Two lowest, unneeded overflow weirs need to be removed (Optional) –

• Demob and remove Wing Gates hardware from Collection Channel MU 9 (Optional)

**South AWS conduit – Dewater or NOT? Jan. 13, ’21**

• Inspect and remove accumulated mussel shells if necessary

**South fish turbine intake trashrack install and water up Feb. 25, ‘21**

• Install trashracks and picketed leads at count stations.

**JD Tailrace BRZ Avian Lines Grid –**

• Reinstall avian line from spill bay 7

• Cut trees on OR shore

**Guidelines:**

• Adult winter maintenance (outage) season is Dec 1 through Feb 28.

• Juvenile winter maintenance (outage) season is Dec 1 through February 28.

 -STS pulled after 15 December

• One adult ladder in regular service at all times when the second one is OOS for winter maintenance. Any overlapping outages (two ladders OOS at the same time are required to be coordinated in advance with FPOM.