

MEMORANDUM FOR THE RECORD

Subject: FINAL Minutes for the 13 November 2008 FPOM meeting.

The meeting was held at Pacific States Marine Fisheries Commission Conference Room 205 Spokane Street, Portland OR. In attendance:

Last	First	Agency	Office	Email
Bailey	John	USACE	509-527-7123	John.c.bailey@usace.army.mil
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Fredricks	Gary	NOAA	503-231-6855	Gary.fredricks@noaa.gov
Hausmann	Ben	USACE	541-374-4598	Ben.j.hausmann@usace.army.mil
Hevlin	Bill	NOAA	503-230-5415	Bill.hevlin@noaa.gov
Klatte	Bern	USACE	503-808-4318	Bernard.a.klatte@usace.army.mil
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Morrill	Charles	WDFW	360-902-2747	cfwdfw@aol.com
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Stephenson	Ann	WDFW	360-906-6769	stephaes@dfw.wa.gov
Tackley	Sean	FFU	541-374-8801	Sean.c.tackley@usace.army.mil
Tudor	Rosanna	WDFW	541-922-3630	Tudor1919@yahoo.com
Wills	Dave	USFWS	360-604-2500	David_wills@fws.gov
Zyndol	Miro	USACE	541-506-7860	Miroslaw.a.zyndol@usace.army.mil

Ben Hausmann called in.

1. Klatte opened the meeting. The agenda was reviewed. Fredricks added LGR trap to the agenda. October minutes were reviewed and approved, with the comments Fredricks sent to Mackey.
2. Action Items
 - 2.1. [long time ago] BON PH1 Grizzlies. **ACTION:** Hausmann will investigate options for modifying the PH1 draft tube drains. **STATUS:** Hausmann would like to schedule mods to the drains as the units come out of service. Sounds like drawings need to be confirmed, initial drain installation will determine anticipated costs and schedule.
 - 2.2. [long time ago] Switchgate seals at BON and JDA. **ACTION:** JDA will move forward with the airbladder seals. NOAA worries about fish being able to access areas under the gate. BON will continue moving forward with reducing leakage around and under the gate. **STATUS:** Turned over to Small Projects. Mike Adams is the POC. Project engineer, Dave MacIntosh, will be engaged in the project as well. Project is still moving forward. BON will follow JDA lead. Determined there is a greater need at BON than at JDA. Ballinger reported that shad are getting through the leakage through the upper switchgate. Fredricks would like BON to implement something this year if possible.
 - 2.3. [Nov 08] Switchgate seals at BON and JDA. **ACTION:** Zyndol to check on the progress with MacIntosh. Mackey to follow-up. Hausmann will check with JDA to see if the design could be

installed at BON this year. Cordie will take that to the Small Projects team and add BON to the scope of work. MacIntosh will need to contact a BON engineer.

- 2.4. [Sep 08] FPOM coordination. **ACTION:** Klatte will talk with Langeslay about coordination and coordination documentation. **STATUS:** *Klatte talked with Langeslay about the coordination form used for FPOM. The Fish Passage Team will start to use the same form for regional coordination.*
- 2.5. [Sep 08] Pinniped task group. **ACTION:** Lorz to send Bettin information about hazing.
- 2.6. [Sep 08] WDFW jack size memo. **ACTION:** Richards will send a copy of the memo to FPOM when he sends it to LeFleur. **STATUS:** *A response from TAC is attached to these minutes. TAC didn't want to change the protocols at this time.*
- 2.7. [Sep 03] SMP protocols. **ACTION:** Dykstra will mesh the FPP language so FPC and USACE protocols are more closely aligned. **STATUS:** *to be discussed at SMP metric meeting.*
- 2.8. [Oct 08] Blanket approval for certain maintenance issues. **ACTION:** FPOM will develop limitations to include in the 2009 FPP. Klatte will take the lead to develop acceptable criteria. **STATUS:** *Now a task group. The group will meet after the December FPOM meeting.*
- 2.9. [Oct 08] LGS orifice back-flushing. **ACTION:** Moody will contact Hevlin to set up a date. **STATUS:** *Discussed at NWW FFDRWG. NWW will look into past attempts to get automated orifice flushing and see if they can implement a system.*
- 2.10. [Oct 08] IHR ITS water pump. **ACTION:** Bailey will provide more details to FPOM. He will include the material the pump line will be made of and how the pumping will occur. **STATUS:** *Work is completed. Pump and hose were made of inert material.*
- 2.11. [Sep 08] TIES task group. **ACTION:** Klatte to set up a meeting to discuss the data. **STATUS:** *to meet after December FPOM meeting. Klatte would like to have a decision made by 1 February as to whether or not TIES are needed. The TIE crane is on schedule. Wills reminded everyone that TIES do not need to be installed until April since there is no March Spring Creek release. Fredricks said that TIES need to go in when the STSs go in. The TIES were not installed for Spring Creek; they were installed for the spring migrants. Bettin asked whether there would be a problem with the B2CC being open with TIES in.*
- 2.12. [Sep 08] WDFW fish viewing window light request. **ACTION:** Stephenson will inquire further as to the need for extra lights, then let Mackey know if further coordination is needed. **STATUS:** *to be discussed under item #5.*
- 2.13. [Oct 08] BON B2CC repairs. The District will inspect and draft recommendations for repairs. **ACTION:** Schwartz will get the report by next FPOM. **STATUS:** *agenda item #4*
- 2.14. [Sep 08] JDA smolt monitoring. **ACTION:** FPAC will provide a recommendation on Cordie's rationale. **STATUS:** *to be discussed under agenda item #7.*
- 2.15. [Nov 08] BON PH1 STSs. **ACTION:** NWP will write up a change form for the early removal of STSs. **STATUS:** *Coordination form sent on 28 November.*
- 2.16. [Nov 08] BON Spill response plan. **ACTION:** Mackey to send out BON emergency spill response plan to FPOM. **STATUS:** *sent out on 1 December.*
- 2.17. [Nov 08] BON Spill response plan. **ACTION:** Hausmann to discuss the plan at next FPOM.
- 2.18. [Nov 08] BON B2CC repairs. **ACTION:** Lee will provide a repair schedule.
- 2.19. [Nov 08] BON B2CC repairs. **ACTION:** Hausmann will talk with the maintenance crews to discuss what repairs could be made this winter.
- 2.20. [Nov 08] IHR Sacajawea sub-station transformer. **ACTION:** Bettin to draft the FPP change form detailing the unit operation needed to keep the system operating correctly.
- 2.21. [Nov 08] WDFW fish count lights. **ACTION:** Stephenson will draft a write-up detailing what the fish counters are seeing and what they are requesting. It should include what are they seeing, how improvements will be assessed, etc. Stansell offered assistance.
- 2.22. [Nov 08] MCN dewatering screen monitoring. **ACTION:** Mackey to call Swenson to find out status. Need to call during the AM since he is on jury duty.
- 2.23. [Nov 08] Screen removal for lamprey passage. **ACTION:** Clugston to look at the temporal passage, impacts to salmon if the screens are pulled, etc.
- 2.24. [Nov 08] Fishway entrance times by adult salmon. **ACTION:** Cordie will talk with Clugston about getting University of Idaho to do the analysis.

- 2.25. [Nov 08] PH2 VBS Task Group. **ACTION:** Klatter/Hausmann to draft memo for next FPOM.
- 2.26. [Nov 08] LWG jack bars. **ACTION:** NWW bio to draft FPP change form for the new bars.

3. Updates. (Klatte/Dykstra)

- 3.1. Galvanized grates- water sample update. Cordie reported that an additional sample has been added. Once those results are in, a report will be generated and distributed.
- 3.2. BON FOG lifting beam. Hausmann reported that the beam has become irritating. The Project has yet to receive the plans. A request has been made to get draft details so parts could be ordered. Kranda was the PM, now Erickson. Fredricks asked if pressure needs to be put on so this task can be completed before fish passage season. **Hausmann should call Fredricks if he needs any assistance in explaining the need to complete this task before 1 March.**
- 3.3. BON PH1 STS removal- 1 December. Hausmann explained that the screens need to come out early so the riggers can prepare the ITS for mods and to best utilize time since there is a lot of winter maintenance. **ACTION: NWP will draft a change form for the early removal of STSs.**
- 3.4. BON emergency spill response plan. FPOM may provide comments or suggestions to include on the response plan. Fredricks does have issues regarding the order of closing fishways when there is a potential impact from oil. **ACTION: Mackey to send out the BON emergency spill response plan to FPOM.** This will be discussed at the December FPOM as well. **ACTION: Hausmann will talk through the plan at the December FPOM.**
- 3.5. TDA ITS update. Battelle equipment installed; everything's working and ready for the study.
- 3.6. IHR fish pump repairs. Dykstra handed out a sheet detailing the fish pump repairs. Fish pump #2 has been out for a year. It is expected to be installed by 1 December with all three pumps back in service by 1 March. Pump #3 should be installed and tested on 26 February.
- 3.7. IHR CO2. A couple of priority units were going to be out of service during fish passage season to facilitate the CO2 installation. Dykstra reported that, after reviewing the schedule and discussing limiting outages during fish passage season, it appears the work can be done within the winter maintenance period.
- 3.8. MCN fish pumps. Dykstra updated FPOM on the anticipated dive. Divers were expected on 12-13 November. They did not dive due to this being a penetration dive. Divers did not have the proper gear, so the dive has been pushed back to early December. Fredricks said it is now during winter maintenance so no further coordination is needed, as far as NOAA is concerned.
- 3.9. IHR Sacajawea sub-station transformer. Dykstra explained that work proceeded. Hevlin had requested a breakdown on the impacts to fish movement due to using units 5 and 6 instead of units 3 and 4. Looking at the numbers, which were emailed, there doesn't appear to be a significant difference in fish movement. Work occurred on 28-30 October. Bettin said they discovered they couldn't run Unit 1 or Unit 2 on the transformer. He suggested a change form be submitted for the FPP. There were more questions about the way that works. **ACTION: Bettin to draft the FPP change form.**
- 3.10. LWG holding tanks. Discussed at FFDRWG. At MOP, only two holding tanks are operational, if the ladder is to remain in criteria. To operate all six holding tanks, need to be at MOP +1.3' to keep the ladder in criteria. This allows for six complete water changes per hour for each tank. Fisheries found the engineer calculations may not be what are seen in the field.
- 3.10.1. The first problem appears to be a valve that was installed without any position indicator. An indicator will be installed. Wills asked if this was the mystery valve referenced last year when a valve was opened and some tanks were filled with water. Dykstra responded that he has had a hard time getting concrete answers.
- 3.10.2. The second problem is what appears to be a leak. This will be investigated and repaired as well. Fredricks said the issue for FPOM is getting water in the holding tanks and repairing the leak. Bettin asked about the MOP and about hauling fish off sooner. These were said to not be FPOM issues. Benner asked if once the repairs are made, what's the next step; operate at MOP +1.3'? An update should be provided at the December FPOM. Bailey asked if it would be possible to fill the upstream projects first, then move downstream. Bettin had a reply, but the recorder didn't pick it up very well.

4. **B2CC inspection report.** (Lee/ Schwartz) A report has been generated and distributed to FPOM. Lee discussed the damage seen. He referenced photos in the report. He pointed out the erosion areas that have grown over the years. Lee commented that the epoxy has stayed so well because it was applied in the summer, when the channel was dry and the weather was dry and warm. Fredricks suggested using heat lamps. Repairs will be paid for by CRFM. **ACTION: Lee will provide a repair schedule.** Bailey asked if the level of erosion is typical for this kind of construction. There was discussion about potential repairs and expected lifespan of those repairs. Fredricks asked that this be on the NWP FFDRWG agenda since more of these types of channels may be built in the future. Hausmann said the Project could probably caulk the joints but the concrete repairs probably wouldn't be done by the Project. **ACTION: Hausmann will talk with the maintenance crews to discuss what repairs could be made this winter.**
5. **WDFW fish count window lighting.** (Stephenson) Stephenson repeated the request to turn the lights on upstream of the fish count windows to provide more light. She asked what the reason for keeping the upstream lights off might be. Stansell responded that fish were turning into the windows instead of moving upstream. Stephenson asked if it would be possible to turn the lights on as a trial during this time of year. Stansell wanted to know if it would be just during the winter. He seemed willing to consider a floating rule of allowing the lights to be on until they start hitting the windows. Bettin asked if a study with the lights on and off would be useful. Fredricks asked for clarification of the issue. Stephenson said a fish counter was seeing fallback, more back and forth movement and she requested adding lights to try to get the fish to move through. Fredricks asked for a more formal write-up. He expressed concern about changing things without having more detail and information to evaluate. Richards said they are seeing similar issues with steelhead upstream. The numbers of fish in the window could compromise the accuracy of the counts. **ACTION: Stephenson will draft a write-up detailing what the fish counters are seeing and what they are requesting. It should include what are they seeing, how will they assess whether the lights are an improvement, etc. Stansell offered to assist.**
6. **CRITFC's review of PIT tag data for travel time from the AFF to BO3.** (Lorz) Move to December.
7. **JDA STS inspection schedule/ screen removal.** (Cordie/Zyndol) The screens are scheduled to be inspected at the end of November. The Project would like to forgo the inspection since the screens will be pulled two weeks later, there have been no issues with the screens the last couple of inspections and debris loading is non-existent. Cordie explained that since it is a monthly inspection, but there are only two more weeks left in the last month. Next year, the extra two weeks will be absorbed into the schedule so this won't be an issue. **FPOM says ok.**
8. **JDA smolt monitoring.** FPAC recommendation for JDA smolt monitoring. (McCann/ Cordie) McCann said FPAC will discuss and provide a memo at the next meeting.
9. **Kaplan study update.** (Fredricks/Wittinger) No updates for November. Bailey said comments for the next draft will be needed by 27 November. Currently at the 75%.
10. **WDFW update of the jack size.** (Richards) Discussed under Action Items 2.6.
11. **MCN dewatering screen monitoring.** (Swenson) **ACTION: Mackey to call Swenson to find out status. Need to call during the AM since he is on jury duty.**
12. **Screen removal during peak juvenile lamprey, especially at MCN.** (Clugston) If not discussed in November, plan for December discussion. No one had yet heard of this so there was not a lot of discussion. There are a couple of options at this time; re-design the screens (due to porosity issues with the perf plate and lamprey), or pull them. Bettin said you may not want to install screens in March, maybe wait until April. That would give lamprey some time to get by. There were lots of

questions, such as what percentage of lamprey are impacted by the screens? Hevlin commented that fyke net studies were done in the 80's and 90's, what sort of data do they show? **ACTION: Clugston to look at the temporal passage, impacts to salmon if the screens are pulled, etc.** Wills thought there were studies out there, maybe by University of Idaho? Kovalchuk commented on anecdotal evidence but juvenile lamprey are difficult to study. Tudor commented that the tribes have told her smolt monitoring may be seeing more wash out than voluntary migration in the spring. Bettin said it is something FPOM should look at since it is possible the screens could have a big impact and there may be ways to mitigate those impacts by leaving screens out as long as possible.

13. LGS orifice backflushing. (Hevlin) Discussed under Action Items 2.9.

14. BPA-TBL transmission line coordination. Bettin explained some of the upcoming transmission line outages. The schedule is attached to the minutes. Bettin explained that TBL stands for Transmission Business Line and that BPA is truly a two part agency, not one. There is the power side, commonly known as BPA and the Transmission side which is referred to as TBL. He expects a smoother transfer of information between the two sides regarding transmission line outages and coordination with FPOM.

15. Discussion of passage times at JDA and TDA. (Zyndol) This discussion is to better clarify the time of day fish tend to enter the fishways. TDA/JDA Fisheries have graphs that show fish numbers passing the count station and the time of day. They would like clarification so future outage requests could be planned at a more appropriate time of day. Cordie explained that the recent fishway outages have been planned to avoid first light. The information Fisheries has seen, with counts, has shown passage a little later in the day. Fredricks referenced studies from the past that showed fish entered the ladder at first light. The fish then take a bit of time to get to the fish window, so outages need to be planned around the time when fish enter the ladder, not when they pass. If FPOM were to change the generally accepted times, there will need to be an analysis to better pinpoint when fish enter the ladder. Fredricks recommended NWP ask Peery and University of Idaho mine the existing data to see if they can find the timing of adults entering the fishway. **ACTION: Cordie will talk with Clugston about getting University of Idaho to do the analysis.**

16. Task Group updates

16.1. Blanket outage language. (*Chair- Klatte, Benner, Dykstra, Fredricks, Lorz, Wills*) **To meet after December FPOM.**

16.2. Fishway velocity (*Chair-Cordie, Fredricks, Lorz, Meyer, Mackey*). **To meet after December FPOM.**

16.3. Lamprey (*Chair-Cordie, Clugston, Dykstra, Lorz, Mackey, Meyer, Moody, Moser, Caudill, Rerecich, Zyndol*)

16.4. PH2 VBSs (*Chair- Hausmann, Benner, Fredricks, Klatte, Lorz, Mackey, Meyer, Schwartz, Wills*). Hausmann asked for clarification as to what needed to be done after the last meeting. Bettin asked if this was pertaining to the studies for the VBS mods. Fredricks recalled the monitoring plan and the long and short term plans that had been originally drafted. **Update-At the last task group meeting, Hausmann was tasked with writing up the plan for monitoring, pulling, and re-installing STSs and VBSs, in the event of a high debris load. The original memo for the record, written last spring, needed to be fleshed out with the long term plan and the short term plan the Project anticipates implementing, if needed. ACTION: Klatte will work with Hausmann to get a memo written for the next FPOM. Meet after December FPOM.**

16.5. Pinnipeds (*Chair-Stansell, Bettin, Benner, Brown, Fredricks, Hausmann, Kruger, Stephenson, Richards, Wills*) Smith-Root will have a presentation on 28 January. Bettin mentioned that BPA is trying to work with other groups so everyone will know what has been done, what is being done and what is planned for the future. The states have begun their coordination with BON Project for access. A court decision should be made by the end of the month.

- 16.6. TIES (*Chair-Klatte, Bettin, Benner, Fredricks, Kruger, Mackey, Schwartz, Wills*). To meet after December FPOM.** Fredricks clarified that this is to determine whether TIES will be installed or not. He would like data to look at so a good decision could be made. He would like to view that before the meeting.
- 16.7. Water Quality (*Chair- Klatte*)** Waiting on the samples.
- 16.8. SMP condition metrics. Meeting immediately after FPOM and on 14 November.**
- 17. FPP proposed changes.** FPOM would like numbers on the change forms. Fredricks would like a meeting to discuss the FPP changes. The January FPOM will be dedicated to discussing the FPP. The meeting will be held at NOAA Fisheries in the St. Helens room.
- 17.1.** 08overview001 OV 1.10.2.1 FPOM Coordination- reference/copy of Coordination Form.
- 17.2.** 08BON003 BON sturgeon language. (incorporates changes from May 2008 mtg)
1. Discuss difficulty in slow rolling PH1 units.
- 17.3.** 08BON004 BON 2.4.2.2.n.1 relocation.
- 17.4.** 08BON005 BON shad passage mode criteria.
- 17.5.** 08BON006 BON 2.1.2- include preference for mid to upper 1% turbine operations during split flows.
- 17.6.** 08BON007 BON 1.2.1.1, BON 2.4.1.2.f, BON 2.5.3.f, BON 2.5.3.f.1- change date of PH1 fish screen installation.
- 17.7.** 08BON008 Table BON-11- include split flow unit priority row to the table.
- 17.8.** 08JDA002 JDA Table 5
- 17.9.** 08JDA003 TDA and JDA velocity measurement language.
- 17.10.** 08JDA004 JDA 2.5.1.2.b.1- remove language.
- 17.11.** 08AppG004 Appendix G- BON protocols for holding lamprey.
- 17.12.** 08AppG005 Appendix G- BON valve numbering correction.
- 17.13.**
- 18. Other- LWG separator.** New bars were installed to separate juveniles from jacks. They are working great. Kudos to Mike Halter for getting the bars in. **ACTION:** NWW bio to draft a FPP change form to get the new bars into the 2009 FPP.
- 19. Next Meeting-** December 4th, 2008 at TDA Administration conference room, 0900-1600.
- 20. FPP approved/rejected changes from March 2008- present.**
- 20.1.** 08LGS001 LGS spill pattern. **Approved** at the April FPOM.
- 20.2.** 08LMN001 LMN spill pattern. **Approved** at the April FPOM.
- 20.3.** 08MCN001 MCN unit priority. **Approved** at the April FPOM.
- 20.4.** 08MCN002 MCN spill pattern. **Approved** at the April FPOM.
- 20.5.** 08TDA001 TDA ITS closure. **Approved** at the April FPOM
- 20.6.** 08BON002 BON 50K dates. **Approved** at the April FPOM.
- 20.7.** 08JDA002 JDA turbine unit 5. **Approved w/changes** at the May FPOM.
- 20.8.** 08JDA001 JDA SMF PIT tag shutdown date. **Approved** at the May FPOM. Changed at the August FPOM, back to the original language.
- 20.9.** NO CHANGE FORM. Voluntary v involuntary spill definitions. RCC recommended against including these definitions in the FPP at the June FPOM.
- 20.10.** 08IHR001 IHR 1% tables. **Approved** at the June FPOM.
- 20.11.** 08TDA002 TDA spill pattern change. **Approved** at the June FPOM.
- 20.12.** 08AppG002 App. G- BON protocols section 4.2. **Approved w/ changes** at the July FPOM.
- 20.13.** 08AppG003 App. G-BON picket lead operations at high temps. **Rejected** at 16 July meeting.
- 20.14.** 08AppG001 App. G- BON protocols for trapping lamprey at water temps of 70°-72°F. **Approved** via e-mail coordination in early August.
- 20.15.** 08BON001 BON 2.1.2- include jacks in salmonids counts for splitting flows. **Approved** at Sep. FPOM.

21. Finalized results from this meeting.

21.1. JDA STS inspection. FPOM says ok to not inspecting the screens for November since they will be pulled two weeks later.

22. The following documents were provided or discussed.

22.1. *Agenda, Fish Passage O&M Coordination Team.*

22.2. *TAC report on jack size. page 8*

22.3. *2008-09 Transmission Outages that have potential to limit generation (Dec-Jan). page 9*

22.4. *Preliminary summary of the Bonneville adult trap operation on ladder passage times page 10*

22.5. *Diel behavior (adult salmonids).doc page 11*

22.6. *Diel distributions spck JD dam.doc page 12*

22.7. *Final SMP Metrics October 9 2008 Meeting minutes. Pages 13-14*

22.8. *FPP change forms. Pages 15-18*

22.9. *Fisheries Calendar Nov-Feb. pages 19-22*

22.10. *NWW O&M report. Page 23*

Draft *U.S. v Oregon* Technical Advisory Committee (TAC) Report on Counting Jacks at Mainstem and Snake River Dams

November 10, 2008

TAC discussed a proposal from Steve Richards (WDFW) to modify the way Chinook jacks are counted at dams. Table 1 shows the current classifications used.

TAC utilizes dam counts as an index of historic fish passage. TAC recognizes that there is variation in size at age for Chinook and some jacks will be adult sized and some adults will be jack sized. Some stocks often have a significant portion of large jacks such as Spring Creek tules. Size at age may also vary with factors such as ocean conditions (good ocean conditions may lead to higher growth rates). It may vary to some degree by population or for hatchery and wild fish. For instance, spring Chinook jacks may be somewhat smaller than fall Chinook jacks. TAC believes it may be difficult to find the “perfect” jack measurement that will always minimize any error associated with counting adults and jacks.

Changing the jack measurement would make it difficult to compare future with historic jack/adult counts. Jack counts are significant when developing forecasts based on cohort analysis. Managers have the ability to use age class data from some facilities to confirm/adjust jack counts as needed for forecasting purposes.

TAC does not feel there is enough compelling information at this time to recommend changes to the 22” jack measurement. TAC would support recommending that Grant PUD implement a 12-22” criteria to exclude mini-jacks from their counts.

Table 1. Adult and Jack Salmon Length Classifications for Columbia And Snake River Dams’ Fish Counts

Entity	Jack Chinook Length Used	Adult Chinook Length Used	Jack Coho Length Used	Adult Coho Length Used
USACE –	12” – 22”	>22”	12” – 18”	>18”
Grant PUD –	<22”	≥22”	<20”	≥20”
Chelan PUD –	12-24”	≥24”	<20”	≥20”
Douglas PUD	12” – 22”	>22”	not assessed	any coho

2008-09 Transmission Outages that have potential to limit generation (Dec-Jan)

Equipment Outage	Date(s)	Hours	Impacted Generation	Notes
November				
Sacajawea 500/115kV transformer 1	11/22/06-5/31/09	Continuous	<u>Ice Harbor generation requirements</u> : Heavy Load Hours (0600-2200) minimum of 1 unit. Light Load Hours (2200-0600) no minimum requirement unless Tri-Cities import > 600 MW. If only one unit on-line, it should not be unit 1 or 2 due to their connection to	Bank failure. Ice Harbor gen requirements updated 11/1/08 and unit priority information added. Modifications to the Fish Passage plan are needed to capture this need of not running units one or two alone.
Lower Monumental PH-Lower Monumental 1 500kV line	10/25/08-11/11/08	Continuous	Forces out units 1-6	COE replacing T1 disconnect (work was completed on 11/9)
Big Eddy 230/115kV transformer 1	11/17/08-11/21/08	Continuous	The Dalles 115kV generation (units 1-4 & F1-2) limited to 367 MW per DSO 327	Tap changer service
December				
The Dalles PH-Big Eddy 1 115kV line	12/8/08-12/11/08	Continuous	Forces out units 1-2 and F1-2	PH maintenance on ZWT-A
The Dalles PH-Big Eddy 1 115kV line	12/15/08-12/18/08	Continuous	Forces out units 1-2 and F1-2	PH maintenance on ZWT-A
January				
The Dalles PH-Big Eddy 2 115kV line	1/26/09-1/28/09	Continuous	Forces out units 3-4	PH maintenance on ZWT-2

12 October 2007

To: David Clugston

From: Matt Keefer & Chris Peery

Re: Preliminary summary of the Bonneville adult trap operation on ladder passage times

Notes:

- This summary was put together by querying the PTAGIS database for BO3 records in 2004.
- 'In-trap' fish had records downstream from the trap diversion (coils 11-18), in the trap (coils 20-38) and upstream from the trap (coils 1-10 and 0A-0F); some may have passed undetected.
- 'Not in trap' fish had records downstream and upstream of the trap but not in the trap.
- No adjustment was made for time of day, or for which interrogator coil had the first records.
- Radio-tagged fish were removed from the in-trap sample, because most were released downstream.
- The spring-summer Chinook results suggest a passage 'delay' of 1.1-1.6 hours, on median (Fig. 1).
- The steelhead results suggest a passage 'delay' of 2.2-3.3 hours, on median (Fig. 1).

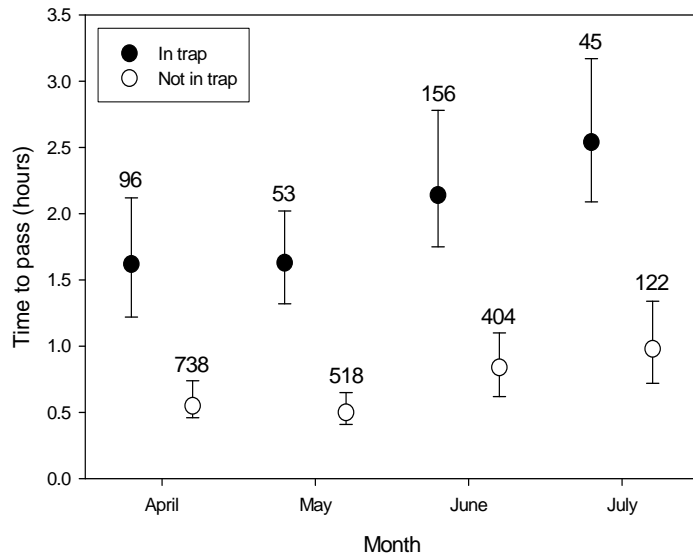


Figure 1. Median and quartile passage times for PIT-tagged spring-summer Chinook salmon in the Bonneville WA-shore ladder, by month in 2004. Start time was the first record at any PIT interrogation site in the ladder downstream from the adult trap diversion (coils 11-18); end time was at the first record at any interrogation site in the ladder upstream from the trap (coils 1-10 and 0A-0F).

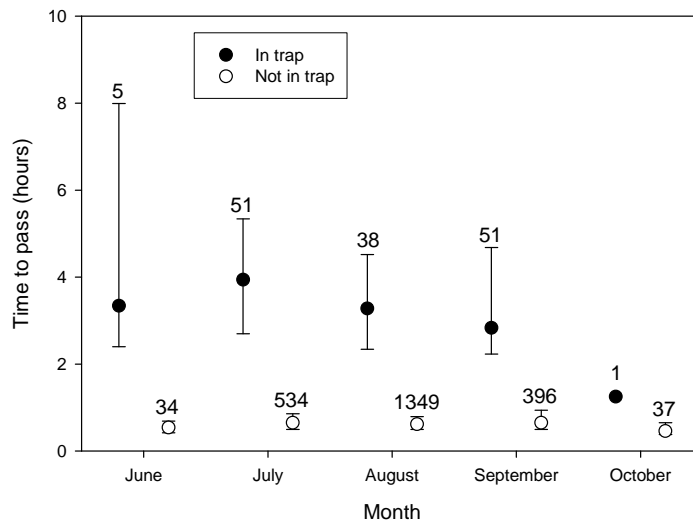


Figure 2. Median and quartile passage times for PIT-tagged steelhead in the Bonneville WA-shore ladder, by month in 2004. Start time was the first record at any PIT interrogation site in the ladder downstream from the adult trap diversion (coils 11-18); end time was at the first record at any interrogation site in the ladder upstream from the trap (coils 1-10 and 0A-0F).

Figure 1. Mean annual percentages of adult spring–summer Chinook salmon and steelhead that were recorded entering migration segments at night (defined by sunrise and sunset). Figure summarized from several telemetry study years.

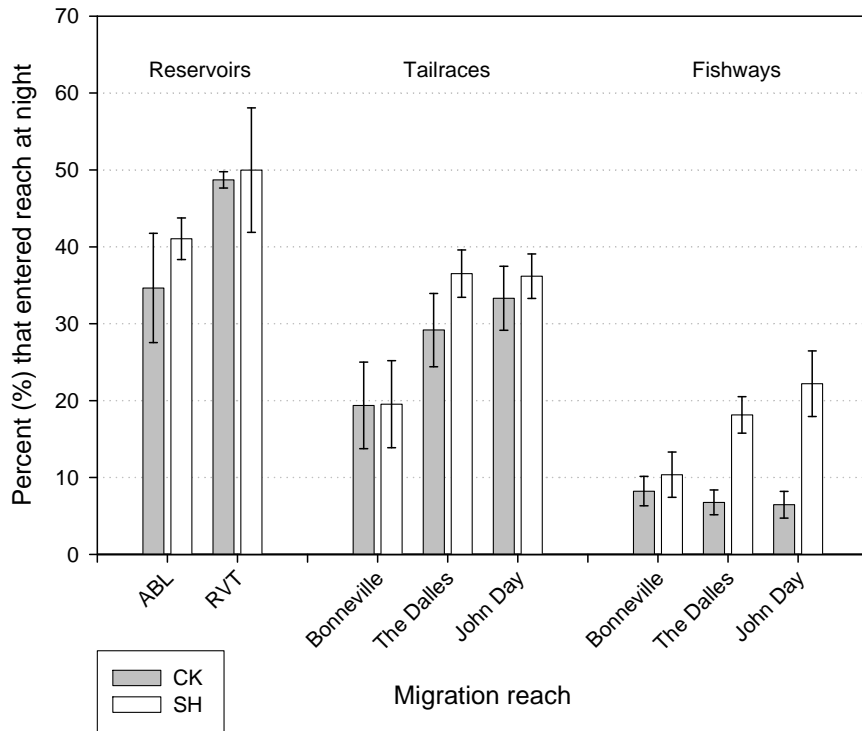


Figure 2. Adult spring–summer Chinook and steelhead passage times from fishway entry to exit from the top of a ladder at Bonneville (BO), The Dalles (TD), and John Day (JD) dams, by time of fishway entry.

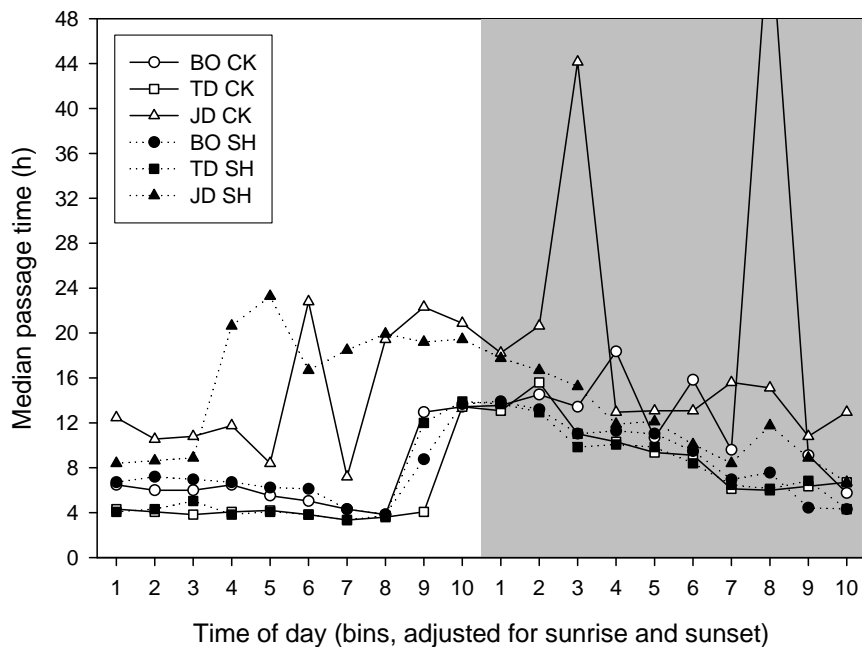


Figure 1. Time of day distributions for adult spring–summer Chinook salmon approaches to fishway entrances at John Day Dam in 2000-2001 ($n = 18087$ in 2000, 20679 in 2001).

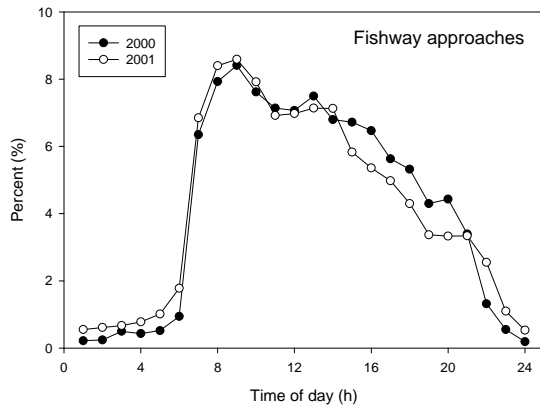


Figure 2. Time of day distributions for adult spring–summer Chinook salmon entries into fishways at John Day Dam in 2000-2001 ($n = 4429$ in 2000, 6290 in 2001).

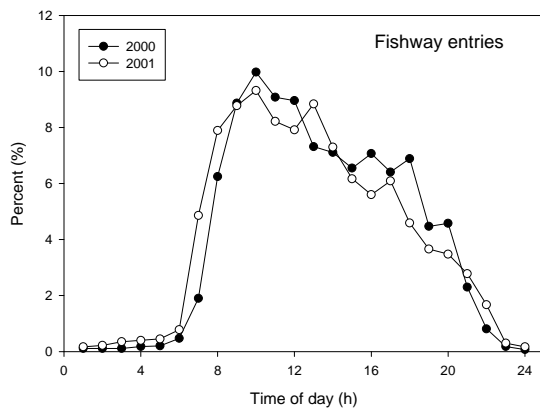
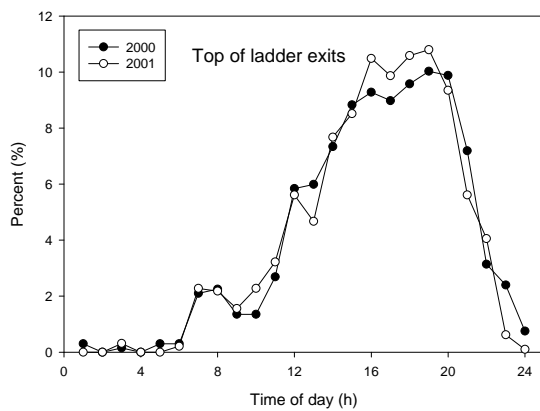


Figure 3. Time of day distributions for adult spring–summer Chinook salmon when they exited fishways into the forebay at John Day Dam in 2000-2001 ($n = 668$ in 2000, 963 in 2001).



**October 9, 2008 Fish Condition Meeting –
The Columbia Gorge Discovery Center, The Dalles, OR**

Attendees:

<u>Name</u>	<u>Agency</u>	<u>Phone Number</u>
John Bailey	COE – Walla Walla	(509) 527-7123
Dean Ballinger	PSMFC – Bonneville	(509) 427-2725
David Benner	FPC	(503) 230-7564
Ian Chane	COE – Portland	(503) 808-4305
Tim Dykstra	COE - Walla Walla	(509) 527-7125
Brad Eby	COE – McNary	(541) 922-2263
Gary Fredericks	NOAA	(503) 231-6855
Bernie Klatte	COE – Portland	(503) 808-4318
Les Layng	WDFW – McNary	(541) 922-3630
Rick Martinson	PSMFC – The Dalles	(541) 296-8989
Jerry McCann	FPC	(503) 230-4291
Fred Mensik	WDFW – Lower Granite	(509) 843-3084
Greg Moody	COE – Walla Walla	(509) 527-7124
Charles Morrill	WDFW	(360) 902-2747
Ed Myer	NOAA	(503) 230-5411
Bill Spurgeon	COE – Lower Monumental	(509) 282-7211
Rosanna Tudor	WDFW – McNary	(541) 922-3630
David Wills	USFWS	(360) 604-2500

Meeting Notes:

Tim Dykstra led off the meeting with a review of what transpired at the post transport/ fish condition meeting at Walla Walla District on September 3. Participants were provided with a handout listing the minimum but essential data that the Corps projects need to properly operate their facilities. The handout also included a list of fish condition metrics.

Jerry McCann followed with a list of injury definitions which was also handed out to participants. This list will go into the revised smolt monitoring program handbook. A second handout of a sample prototype touch screen was also provided. The illustration gave participants an idea of future touch screen button arrangements.

The task group then focused on revising the fish injury definitions provided by Jerry McCann. The intent was to isolate the effects of hydro-system related injuries from non-related fish conditions. There was much discussion whether to classify operculum abnormalities as an injury or a deformity. This issue was not completely resolved. Popeye with signs of BKD was removed from head injuries and reclassified as BKD in the disease category. A button will be placed under the “other – non-injury” category for popeye. Body and fin injuries were clarified as conditions resulting from mechanical or physical injury. Fungal body and fungal fin conditions were moved to the disease category. The majority of participants concluded that only bloody or torn fins were considered serious enough to be included in the “injury” category. There was some difficulty in defining what is considered a “major injury”, and a general guideline on what is considered an “injury” is needed. “Pink” fin and “hemorrhaged” fin will be classified separately and not be considered an injury. “Split” fin was eliminated as a category. Pictures of fin conditions will be presented at the next meeting and various fin conditions will be

classified. Some agreement on descaling classifications was achieved. There was general agreement that descaling greater than 20% needed to be recorded, as well as partial descaling less than 20%; and greater than 20% descaling caused by predators. Disagreement centered on the minimum amount of scale loss needed to be recorded for a fish to be recorded as “partially” descaled.

Next meeting was set for November 13 following the main FPOM session at the PSMFC office, 205 SE Spokane St., Portland, OR. Participants were to review parasite and disease conditions and prototype touch screen button locations prior to the next meeting. Topics to be covered at the next meeting will include the classification of sample fish pictures, applying the new rules and categories, and a discussion of new touch screen button locations. Jerry McCann will email participants a picture of a prototype touch screen with button locations.

FPP Change Forms

Change Request Number: 08overview001

Date: 10/31/2008

Proposed by: FPOM

Location of Change: Overview 1.10.2.1 FPOM Coordination

Proposed Change: Add wording to include the use of the Coordination Form. Insert a copy of the Coordination Form.

“The District biologist will then provide essential information to the fish agencies, tribes, and other affected interests as appropriate, preferably by *the use of the Coordination Form (below), and, if necessary,* by telephone call with an e-mail follow-up. Information for planned activities should be provided at least two weeks in advance to FPOM representatives for review. For unanticipated but non-emergency activities such as equipment failures, information should be provided at least three workdays in advance. Emergency coordination may be performed immediately prior to or subsequent to the required action (see section 1.2). Information provided to affected interests will include a summary of the problem, location, date and time, analyses of potential impacts to salmon stocks, and potential alternative actions. The affected interests should in turn respond *by email, in person, or by phone. The response will be documented on the Coordination Form, sent to FPOM and filed for future reference.* A District biologist will forward the decision to project personnel, and in some cases, RCC will issue a teletype to the project for approved activities.”

Reason for Change: To provide a Coordination Form for interested parties and to formalize the use of the form for coordination issues.

Comments from others:

Record of Final Action:

Change Request Number: 08BON003

Date: April 16, 2008

Proposed by: Bonneville Project

Location of Change- BON 5.4.6-5.4.7 and BON 6.5.1-6.5.2 (sections re-numbered as required)

Proposed Change:

- 5.4.6. *From 1 December through 30 April, non-priority turbine units will not be voluntarily scheduled for extended outages. Priority units are 1, 10, 11, and 18.*
- 5.4.7. *From 1 December through 30 April, turbines which have been idle/out of service for more than 12 hours will be started by slow rolling the unit after manually tipping turbine blades from flat to steep back to flat.*

After including the two sections above as 6.5.1 and 6.5.2-

The current 6.5.2 will be re-numbered to 6.5.4. Add “*bottom tail logs should be placed first.*”

The current 6.5.3 will be re-numbered to 6.5.5. Add “*It is recommended adjacent units be operated to flush fish prior to placing tail logs in the unit to be OOS. It is also recommended that units located adjacent to OOS units not be voluntarily taken out of service until the adjacent units return to service.*”

Reason for Change: To better protect sturgeon in the draft tube and turbine environment.

Comments from others: FPOM doesn't want priority units OOS during fish passage season.

Change Request Number: 08BON004

Date: 6/4/2008

Proposed by: Project Fisheries

Location of Change: BON-18 2.4.2.2.n.1

Proposed Change:

2.4.2.2.n.1 says “coordinate gatewell cleaning with smolt monitoring personnel operating the downstream juvenile sampling facilities”. It should be moved to 2.4.2.2.m.3, which is the section on what to do when cleaning gatewells.

Reason for Change:

2.4.2.2.n.1 is in the wrong location.

Comments from others:

Record of Final Action:

Change Request Number: 08BON005

Date:8/6/08. Update don 10/31/08

Proposed by: BON Project Fisheries

Location of Change: BON Section 2.5.1.2.a

Maintain the water depth over fish ladder weirs at 1’ +/- 0.1’ during non-shad passage season (August 16 through May 14) and 1.3’ +/- 0.1’ during the shad passage season (May 15 through August 15).

Proposed Change: Remove the dates and adjust to shad passage mode based on the numbers of shad passing.

Maintain the water depth over fish ladder weirs at 1’ +/- 0.1’ during non-shad passage season (<5,000 shad per day/per ladder) and 1.3’ +/- 0.1’ during the shad passage season (> or = to 5,000 shad per day/per ladder).

Reason for Change: It makes more sense to base shad passage mode on shad numbers passing. It also makes BON criteria consistent with TDA shad criteria.

Comments from others: Add *per ladder* to be consistent with TDA.

Change Request Number: 08BON006

Date: 9/11/08

Proposed by: FPOM

Location of Change: BON 2.1.2

Proposed Change: Include, at the end of the paragraph, “Turbine units should be operated at the mid or upper 1% range whenever possible, during the split flows operation.”

Reason for Change: Without this guidance, the Control Room will allow GDACS to run the units, which may result in some units operating at the lower end of the 1% band.

Comments from others:

Record of Final Action:

Change Request Number: 08BON007

Date: 9/11/08

Proposed by: FPOM

Location of Change: BON 1.2.1.1 , BON 2.4.1.2.f, BON 2.5.3.f, and BON 2.5.3.f.1

Proposed Change: To include language that states the PH1 fish screens would be installed as soon as possible, after spill ends.

BON 1.2.1.1 (original)- “The downstream migration channel (DSM) is also used for adult passage from September 15 through December 15.” **to**

BON 1.2.1.1 (new)- “The downstream migration channel (DSM) is also used for adult passage from *early September, as soon as fish screens are installed*, through December 15.”

BON 2.4.1.2.f (original)- “All gatewell orifices should be opened and DSM1 ran south from September 15 through December 15.” **to**

BON 2.4.1.2.f (new)- “All gatewell orifices should be opened and the DSM1 ran south from *early September, as soon as fish screens are installed*, through December 15.”

BON 2.5.3.f (original)- “STSs and VBSs will be installed in two PH1 priority units on September 15.” **to**

BON 2.5.3.f (new)- “STSs and VBSs will be installed in two PH1 priority units *as soon as possible after spill ends*.”

BON 2.5.3.f.1 (original)- “The Powerhouse One DSM will be watered up on September 15, with water flow to the south.” **to**

BON 2.5.3.f.1 (new)- The Powerhouse One DSM will be watered up *as soon as screens are installed*, with water flow to the south.”

Reason for Change: This change provides for getting the fish screens installed and providing adult fallback protection earlier in September. This will also provide protection for when flows are split prior to September 15th.

Comments from others:

Record of Final Action:

Change Request Number: 08BON008

Date: 9/11/2008

Proposed by: FPOM

Location of Change: Table BON-11

Proposed Change: Include a row for unit priority, by powerhouse, when splitting flows.

Table BON-11. Turbine unit operating priorities, Bonneville Powerhouses One and Two.

PERIOD	PRIORITY
Year-round; adult fish ladders are in service	11,18,15,12,17,14,13,16, 3,1,4,6,2,5,7,10,9,8
First Powerhouse Adult Fish Ladder out of service	11,18,15,12,17,14,13,16, 3,1,4,6,2,5,7,10,9,8
Second Powerhouse Adult Fish Ladder out of service	3,1,4,6,2,5,7,10,9,8 11,18,15,12,17,14,13,16
Priority for each powerhouse when flows are split due to fish numbers.	PH1- 3,1,4,6,2,5,7,10,9,8 PH2- 11,18,15,12,17,14,13,16

Reason for Change: This clearly lays out the priority for each powerhouse when flows are split.

Comments from others:

Record of Final Action:

Change Request Number: 08JDA003

Date: 5/27/2008

Proposed by: The Dalles John Day Project

Location of Change: TDA 2.5.1.2.4 and JDA 2.5.1.2.a.4

Proposed Change:

Omit from TD - ‘Water velocities will be measured at one location directly and monitored during fishway inspections to verify channels are operating within velocity criteria’.

Add to TD and JD – ‘Water velocities will be monitored weekly during as part of the fishway inspection program. Project biologist will determine method. Results will be provided in weekly status report. (JD did not have the same wording as TD)

Reason for Change:

Discussion and resolution determined through FPOM velocity task group

Comments from others:

Record of Final Action:

Change Request Number: 08JDA004

Date: 8/13/2008

Proposed by: JDA Project Fisheries

Location of Change- JDA 2.5.1.2.b.1

Proposed Change: Remove the following language “Testing will be conducted to determine if the use of one entrance at greater than 8’ depth allows better passage conditions. (Study plan will be developed through the AFEP Studies Review Work Group.)”

Reason for Change:

Remnant information from previous years FPPs. Decision was made through FPOM to operate 1 entrance weir at >8’

Comments from others:

Record of Final Action:

Change Request Number: 08AppG004

Date: 7/22/2008

Proposed by: Jon Rerecich

Location of Change- Appendix G BON AFF trapping protocols 2.3.

Anytime lamprey are held overnight in the AFF, researchers will notify Project Fisheries and the Control Room.

Proposed Change:

Restrict holding times for lamprey to 48 hours.

Lamprey may be held up to 48 hours in the AFF. Researchers will notify Project Fisheries and the Control Room whenever lamprey are held.

Reason for Change:

To minimize holding lamprey too long. In 2008 there was a mortality due to holding over a weekend.

Comments from others:

Record of Final Action:

Change Request Number: 08AppG005

Date: 091108

Proposed by: Bonneville Project Fisheries

Location of Change Appendix G section 1.12




Proposed Change: App. G section 1.12 currently reads: “Users will be permitted to operate valves 10 and 11” but it should read “Users will be permitted to operate valves 9 and 10”

Reason for Change: Corrects erroneous valve info.





Comments from others:

Record of Final Action:





November 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30						1
2	3	4	5	6 TDA spillwall call	7	8
9	10	11 Veteran's Day	12	13 FPOM Meeting SMP metric meeting Draft FPP input due.	14 AFEP proposal review- NWW	15
16	17 ERDC model trip- JDA & MCN	18 ERDC model trip- JDA & MCN Happy Birthday	19 ERDC model trip- JDA & MCN	20 ERDC model trip- JDA & MCN TDA spillwall call	21 ERDC model trip- JDA & MCN	22
23	24 Happy Birthday	25	26	27 Happy Thanksgiving	28 Draft FPP Due in NWD	29

December 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 BON BI to orifice flow BON F1 OOS	2 TDA-E dewater Chum workshop	3 JDA-N dewater BON BI dewater	4 FPOM at TDA JDA-N ent dewater TDA spillwall tour	5	6
7	8 AFEP Research review- NWP	9 AFEP Research review- NWP	10 AFEP Research review- NWP	11 AFEP Research review- NWP	12	13
14	15 Adult fish counting ends LWG. STS removal begins	16	17 JDA SMF dewater	18 TDA spillwall call BON DSM2 dewater	19	20
21 Happy Hanukkah	22 BON AFF dewater	23 BON two-mile pipe	24	25 Merry Christmas	26 Happy Kwanzaa	27
28	29	30	31			

January 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Happy New Year TDA spillwall call	2 NWW adult fish facility begins	3
4	5 JDA south turbine ROV	6 JDA-S dewater	7 NWP FFDRWG	8 FPOM Meeting- NOAA O&M budget review by FPOM FPP meeting	9 BON CI pickets pulled. BON north blkhd installed.	10 BON WS to orifice flow BON F2 OOS
11	12 BON WS dewater	13 TDA-N dewater	14 TDA-N ent dewater BON ROV inspection	15 AFEP- brief on funded proposals TDA spillwall call	16	17 BON CI to orifice flow
18	19 HOLIDAY	20 BON CI dewater	21	22	23	24
25	26	27	28	29 TDA spillwall call	30	31

February 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 SLEDs installed	3	4	5	6	7
8	9	10	11	12 FPOM- NOAA TDA spillwall call	13 Revised Draft FPP Due to NWD	14
15	16 HOLIDAY	17	18 TDA PUD ROV	19	20	21
22	23	24	25 JDA south turbine trashrack ROV	26 TDA spillwall call	27	28 Annual FPP Issued Adult fish facility maintenance ends

FISH PASSAGE O&M COORDINATION TEAM
Adult and Juvenile Fish Facilities Status Report
U.S. Army Corps of Engineers, Walla Walla District
November 13, 2008

Construction

McNary:

- Turbine unit 6 remains out of service for 9 year overhaul.

Ice Harbor:

- Turbine unit 1: taken out of service October 7 for annual overhaul.

Lower Granite:

- Turbine unit 2 remains out of service for rewind and 6-year overhaul. Expected return to service date is now January 29.
- Turbine unit 3 remains out of service for 6 year overhaul.

Operations and Maintenance - Juvenile Fish Facilities

McNary:

- Facility in bypass mode.

Ice Harbor:

- Facility currently in bypass mode.

Little Goose:

- Collection for transport ended November 1.

Lower Granite:

- Collection for transport ended November 1.
- VBS inspections on October 16 revealed a 3"x4" tear in the VBS in slot 1A and a 2"x2" tear in the VBS in slot 5B. Repairs will take place during the winter maintenance period.

Operations and Maintenance - Adult Fish Facilities

McNary:

- Fish pump #3 (Oregon Ladder): Fish Pump #3 remains out of service for oil leak repair. Repairs cannot be initiated until bulkheads can be sealed properly. System is currently in 2 pump operation. Dive scheduled November 12 and 13 (details in special operations request).

Ice Harbor:

- North Shore Fish pump #2 gearbox remains out of service for manufacturer warranty repairs.

Lower Monumental:

- Fish Pump #3 remains out of service due to problem with the diffuser assembly and bearing housing. Fish pump 3 is "bulkheaded off" to improve efficiency of 2 pump operation.

Research

Little Goose:

- USGS currently radio-tracking adults through the tailrace.

Lower Granite:

- Adult fish trap in operation.