



CENWP-OD

11 April 2013

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 11 April 2013 FPOM meeting.

The meeting was in the CRITFC Celilo Room, Portland, OR. In attendance:

| Last         | First   | Agency    | Office/Mobile | Email  |
|--------------|---------|-----------|---------------|--|
| Benner       | David   | FPC       | 503-230-7564  | <a href="mailto:dbenner@fpc.org">dbenner@fpc.org</a>   |
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| Conder       | Trevor  | NOAA      | 503-231-2306  | <a href="mailto:Trevor.conder@noaa.gov">Trevor.conder@noaa.gov</a>                           |
| Cordie       | Bob     | NWP-TDA   | 541-506-7800  | <a href="mailto:Robert.p.cordie@usace.army.mil">Robert.p.cordie@usace.army.mil</a>           |
| Dugger       | Carl    | NWW-MCN   |               | <a href="mailto:Carl.r.dugger@usace.army.mil">Carl.r.dugger@usace.army.mil</a>               |
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| Hausmann     | Ben     | NWP-BON   | 541-374-4598  | <a href="mailto:Ben.j.hausmann@usace.army.mil">Ben.j.hausmann@usace.army.mil</a>             |
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| Holowatz     | Josua   | WDFW      |               |  |
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| Mackey       | Tammy   | USACE-NWP | 503-961-5733  | <a href="mailto:Tammy.m.mackey@usace.army.mil">Tammy.m.mackey@usace.army.mil</a>             |
| McIlraith    | Brian   | CRITFC    |               |  |
| Mensik       | Fred    | PSMFC     |               | <a href="mailto:lgrsmolt@gmail.com">lgrsmolt@gmail.com</a>                                   |
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| Trachtenbarg | Dave    | USACE-NWW |               | <a href="mailto:David.A.Trachtenbarg@usace.army.mil">David.A.Trachtenbarg@usace.army.mil</a> |
| Trumbo       | Brad    | USACE-NWW |               | <a href="mailto:Bradly.a.trumbo@usace.army.mil">Bradly.a.trumbo@usace.army.mil</a>           |
| Whiteaker    | John    | CRITFC    |               |  |
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Dugger, Hockersmith , Mensik, Pinney, and Trumbo called in.

**April birthdays include Sweet, Walker, Medina, and Cordie- HAPPY BIRTHDAY!**

1. **Finalized results from this meeting.**
  - 1.1. March 2013 meeting minutes approved.

- 1.2. MCN headgate. Headgates in Unit 6 left in the lowered position due to the debris issues and getting the Project ready for the FGE study. Dugger also requested a couple additional days for getting screens installed. He said he felt fish would be better off if time and energy were redirected to address the debris issues instead of installing fish screens. **FPOM said MCN should focus on debris prior to installing fish screens.**
- 1.3. AFF modifications. Hausmann asked if the 1” gap in the baffle above the water surface is a concern. Meyer and Fredricks agreed there are concerns with that gap. Meyer would prefer to minimize surface disturbance and have a little bit more flow go under the baffle. **FPOM says close the gap and change the direction of the bolts so they are pointing upstream rather than downstream.** Hausmann said they can do that when they are in there next week.
- 1.4. Memos of Coordination.
  - 1.4.1. 13LMN- Unit 1 lubrication not occurring. Looking to change unit priority in the FPP. Bettin suggested last on/first off. Lorz and Fredricks do not believe Unit 2 is “just as good” as Unit 1 for attraction but concerns about oil may be more critical. **FPOM agreed it made more sense to base Unit 1 operation on unit priority without regard to flow. This would remain in effect until the unit is repaired in 2015.**
  - 1.4.2. 13LMN01 Hydrocannon repair. Lorz suggested going to pattern without the RSW during the operation or shutting off spill and going to a uniform spill the rest of the day to get closer to the day average. Kiefer favored going to the uniform pattern after the work is complete. **Do the spill change request, see if it is safe enough, if not, then shut spill down completely. Get the repairs done earlier rather than later, when there will be more fish impacted. Shut down the RSW and shift the flow to a uniform pattern. If that doesn’t work, shut off spill and then make it up after the work with a uniform patten AND the RSW until the volume is made up.**
- 1.5. 13TDA03 TDA-E outage. Would like to close the east entrance to prevent gravel being washed into tail log slots, which impede dewatering units. 29 April is the target date. **FPOM is ok with the closure starting at noon. They also requested looking at getting entrance passage data.** Fredricks and Lorz discussed adding this to the University of Idaho study objectives.
- 1.6. FPP change forms.
  - 1.6.1. 13JDA009 Remove ESBS Language. *Approved.*
  - 1.6.2. 14AppG001 BON update with new observation tanks. Comments noted on the change form. *Approved.*
  - 1.6.3. 14AppG002 IHR updated Adult Trapping Operations. Conder said there are more edits. He recommended following the BON and LWG temperature criteria. Conder also asked for a ladder temperature log when temperatures are between 70 – 72 degrees F. **ACTION: Pinney will update the change form after the FPOM discussion and send it to Fone for formal FPOM concurrence.** Conder said another change may be to slide the trap operations time to allow for full processing of fish in the trap. He recommends changing the time to allow four hours of trapping between the hours of 0600 – 1400 when temperatures are less than 65 degrees F. **FPOM generally agreed with the proposed changes.**

2. The following documents were provided or discussed. Documents may be found at <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/>

- 2.1. *Agenda, Fish Passage O&M Coordination Team.*

- 2.2. *Cooling Water Strainers Lamprey Counts.xls.*

- 2.3. *Coordination/Notification Forms (NWW/NWP)*

### 3. Action Items

#### 3.1. NWW Action Items

- 3.1.1. [Mar 13] MCN unit priority as per the FPP. Setter reported NWW is looking at the data. NWW is ok with the priority as written in the text. **ACTION:** Setter will draft a FPP change form to delete the line from the table. **STATUS: completed.**
- 3.1.2. [Apr 13] Bettin asked if MCN would be raking trash 8 – 11 July, so it coincides with the BPA RAS testing. **ACTION:** Dugger will talk with MCN and Bettin to see if that can be accommodated.
- 3.1.3. [Apr 13] LWG collection channel study. . **ACTION:** Trachtenbarg will work with Fone to develop a MOC for this study and operation.
- 3.1.4. [Apr 13] 13AppG002 IHR Updated Adult Trapping Operations. **ACTION:** Pinney will update the change form after the FPOM discussion and send it to Fone for formal FPOM concurrence.

#### 3.2. NWP Action Items

- 3.2.1. [Feb 13] BON AFF PIT tag detector. **ACTION:** Fryer will have detailed drawings, an operating plan, and monitoring plan for FPOM review in October.
- 3.2.2. [Mar 13] BPA updates. **ACTION:** Need to develop MOCs for those outages that take the Projects out of criteria (TDA Unit 18 and MCN).
- 3.2.3. [Mar 13] JMF and SMF condition sub-sampling data. **ACTION:** Mackey will outline the data that will be lost by stopping sub-sampling information.
- 3.2.4. [Apr 13] VBS task group and reinstallation criteria of STSs. **ACTION:** Fredricks and Hausmann will write up a change form to update the language for when screens will be re-installed.
- 3.2.5. [Apr 13] Sturgeon task group and wicket gate operation. **ACTION:** The task group will write up the change form and submit at the May FPOM.
- 3.2.6. [Apr 13] Hazing activities. **ACTION:** Include a hazing appendix to the FPP. Include sea lion hazing guidelines and avian hazing guidelines.
- 3.2.7. [Apr 13] BON VBS Task Group. **ACTION:** Fredricks and Hausmann will write up a change form to update the language for when screens will be re-installed.
- 3.2.8. [Apr 13] Sturgeon Task Group. **ACTION:** The task group will write up the change form and submit at the May FPOM.
- 3.2.9. [Apr 13] Kelt Video Counting. **ACTION:** Klatte will check with FFU to see when the video monitoring stopped.

3.3. Action Items completed or to be discussed later in the agenda.

### 4. Updates

#### 4.1. NWW Updates

- 4.1.1. MCN headgate. Headgates in Unit 6 left in the lowered position due to the debris issues and getting the Project ready for the FGE study. Dugger also

requested a couple additional days for getting screens installed. He said he felt fish would be better off if time and energy were redirected to address the debris issues instead of installing fish screens. **FPOM said MCN should focus on debris prior to installing fish screens.**

- 4.1.2. LGS spillway stop log testing (MOC 13LGS01) – future FPOM pending further discussions. Fone said they are looking at doing the work in September. Bettin asked if there would be spill. Fone said he didn't think it required spill.
- 4.1.3. LGS erosion inspection (MFR 13LGS05). MFR sent out. . Hevlin said we will have to figure out a way to fix the erosion at LGS. Fone elaborated a bit more on the erosion. He noted the erosion may be contributing to the adult delay issue.
- 4.1.4. IH unit 2 RTS testing (MOC 13IH04) – final results. Fone reported that the Project wanted to run Unit 2 out of priority as part of the return to service. The unit was operated for four hours in the evening but testing wasn't completed. Bettin asked why Unit 2 is so low on the priority. Hevlin said it may be due to the oil leak. There was further discussion about the leaking units at IHR. Setter suggested there are small amounts of oil leaking from most of the units; the oil is food grade oil.
- 4.1.5. LWG ESBSs. Setter reported that the JDA ESBS would only need to be installed in the C slot in Unit 6. Gatewell dipping would occur on a Thursday in May, when there are three bios on site, and target 100 fish per gatewell. The Project is considering a shallow dip to minimize collecting too many fish out of the gatewell. LWG has developed a protocol for using the JDA ESBSs in C-slots and any unit that has one in the C-slot will be added to the list of gatewell dipping and monitoring. Fredricks cautioned that the ESBSs were very carefully balanced due to harmonics and vibration. He said the supports were added so the screens would not break apart, which is what they were doing at JDA. FPOM expressed concerns and asked that LWG use caution when implementing the JDA screens. Setter said they are going to proceed with caution.
- 4.1.6. LWG powerhouse roof repair update MOC 13LWG03 updated with comments received and plan of action to occur. The outage would occur from 0930 – 2300. The units would be available at night for juvenile attraction and power production. Outages would be 5 August through 19 September. 15-16 July will require an outage as well to accommodate a moisture survey. Doble testing will also occur from 12 – 16 August. Bettin asked if the unit could be out for 24 hours during the Doble testing. After further discussion, FPOM wanted to know if time could be saved if the contractor was allowed to work 24 hours a day. Fone then noted that the contract is going to be finalized for solicitation tomorrow, so there isn't time to adjust the scope of work. Fone also noted they would watch the adult passage and may bring in-season coordination to change the spill pattern to reduce delay.
- 4.1.7. LWG ADCP data collection - MOC 13LWG01. Still have to get 75kcfs with and without spill and 120kcfs with and without spill.
- 4.1.8. LWG gatewell overflow weir / enlarged orifice biological evaluation update. Setter reported Halter was being asked to go from a 1% sample rate to a 25% sample rate. This raised some red flags. Trachtenberg said the study design was with the hopes that fish would be there, but he will work with the SMP samplers to develop a more realistic sample rate. They will get fish from Doug Marsh, when his study starts up as well. Hevlin said not to increase the

sample rate until the steelhead are available, otherwise they will exceed their permit restrictions too soon. Blue Leaf/Biomark's research request was for 375 clipped yearling chinook and 375 clipped steelhead daily from the sample, not 125. The 125 of each species are the fish being photographed and collected in the SBC tanks for re-evaluation. The balance of these two groups is used for residency timing purposes. The early concern about sample rates and collecting 750 target fish from the sample (375/species group) was that the steelhead were not present, that increasing the sample rate to obtain 375 clipped steelhead impacted too many fish.

**4.1.9.** LWG testing. Trachtenbarg brought up additional study issues. Appendix A has a unit priority they would like to keep for seven days a week instead of six days a week. **FPOM agreed to that change. Wright will send the teletype this week.**

**4.1.10.** LWG orifices and collection channel operation. Trachtenbarg noted that in the past the collection channel was kept at a higher water elevation, but now that the 14" orifice is available for operation, the jet hits the walkway (Fone showed photos and video). He proposes maintaining a lower water elevation but balancing the channel with the 10" and 14" orifices is tricky. Eventually the entire collection channel will be widened to 9', but until then a modified operation is needed. Setter asked if the channel would go to orifice flow after the study concludes. Trachtenbarg suggested waiting until after the study results come in. This will be an update in May with more study results presented in June. Hevlin said he would also like to see a more detailed discussion at NWW FFDRWG at the end of the month. Mensik asked for a definition of "channel full". He said the channel is operated two feet lower than it has in the past. **ACTION: Trachtenbarg will work with Fone to develop a MOC for this study and operation.**

**4.1.11.** Current JFF operations. All is well.

**4.1.12.** Dworshak Fish Hatchery- juvenile steelhead releases to occur.

#### **4.2. NWP Updates**

**4.2.1.** BON A-Branch/ FV3-7 leak investigation. Next step is to isolate the domestic water line, bleed out all the HVAC water and pressure test the line. Hausmann reported an outside person has been hired to test the water. Still investigating the issue. No pressure loss seen in the domestic water.

**4.2.2.** BON B2CC leak. Hausmann reported the smaller leak was sealed from the outside. The seals appear to work.

**4.2.3.** BON Updated Dewatering Plans. Klatt said he would like to get the BON dewatering plans updated to reflect the new structures and methods for dewatering.

**4.2.4.** BON Fish counts between WS and BI. Why aren't the Spring Chinook using the WS? FPOM discussed the possible impediments to adult salmon passage at WS. The lamprey flume may be vibrating, smell, or create issues we are unaware of. Not much FPOM can do at this time but watch it over the season and document observations.

**4.2.5.** BON spillway hoists. Fredricks asked for an update on the spillway hoist. Hausmann said he thought everything is good. Now that spill has started, the Project was able to conduct final testing, running the gate up and down.

**4.2.6.** TDA Unit 18 OOS for overhaul from 3 March – mid April. Completed. However, there will be another outage 22 - 24 April. The ITS gate opening will be moved to Unit 19. Fredricks asked if we have the switch to an adjacent unit captured in the FPP. Cordie said it is in there. Bettin asked

how long a unit has to be out to warrant the switch to an adjacent bay. Cordie said the switch doesn't take long. Fredricks said an outage of 1 hour isn't work the effort but more than that, it would be.

4.2.7. TDA spillbays. Bay 9 v Bays 10/11. No new updates.

4.3. Critical Spare parts lists. Fone provided a background on why we need the spare parts lists. The goal is to have a uniform template for all projects. FPOM appreciated the effort. The spreadsheet appears to capture those aspects FPOM was looking for. Fone said he is also working on getting the spare parts list in FEM. Fredricks recommended having a more extensive list that may be pared down later.

4.4. Research/FFDRWG updates. Approval letters, permits, etc located at [www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html](http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html)

4.4.1. BON TRD. Rerecich reported successful TRD installation. Velocity testing completed on 4 April. Data is not yet fully processed. There has been no indication of any red flags, or unexpected results. Lorz asked if a change was seen. Rerecich received information that TRDs slightly streamlined gatewell flow but not enough information to comment on a change to turbulence in the gatewell. 8 April began the biological testing. Gilbreath is releasing and collecting fish. A teletype has been issued and the test schedule will meet the constraints. Fredricks noted that the use of river run fish is still in question. Rerecich said we will have to discuss the results before moving forward with that testing, which doesn't begin until mid-May. Wills thanked Rerecich, Bettin, Hausmann, and Gilbreath for accommodating changes in schedules.

4.4.2. AFF modifications. Modifications are continuing. The Task Group met on 2 April for a discussion between the researchers and the Region. A change form came from discussions at that 2 April meeting. Hausmann provided photos of the new baffle in the exit pool, just outside the brail pool. He reported there is plating on the floor and a piece on the brail will be installed next week. Testing, even without the brail plate, showed velocities decreased. Also, due to the baffle, the flow is going the wrong direction through the brail pool. Hausmann asked if the 1" gap in the baffle above the water surface is a concern. Meyer and Fredricks agreed there are concerns with that gap. Meyer would prefer to minimize surface disturbance and have a little bit more flow go under the baffle. **FPOM says close the gap and change the direction of the bolts so they are pointing upstream rather than downstream.** Hausmann said they can do that when they are in there next week.

4.5. RCC update.

| Project | Previous day average (kcfs) | 5 day forecast (kcfs) | 10 day forecast (kcfs) |
|---------|-----------------------------|-----------------------|------------------------|
| LWG     | 63                          | 60                    | 50                     |
| MCN     | 265                         | 252                   | 218 – 230              |
| BON     | 287                         | 262                   | 233                    |

4.6. Pinniped update. Zorich provided the update. Average Stellar numbers and lower California sea lions. Predation is increasing. Sea lions partially sank an ODFW research boat earlier this week. Active trapping to begin next week. They also hope to trap the one at TDA. Critter Cams will be attached to sea lions this year, in conjunction with National Geographic. May be able to get more information about what happens underwater.

- 4.6.1. Forebay pinnipeds. Fredricks asked that the sightings be noted, as available. Cordie said they have been documenting what they see at TDA as well. Cordie said the policy is in place that sea lions should not be locked through.
- 4.6.2. Pinniped hazing at BON. Fredricks brought to FPOM's attention the shooting of shells into the water and the distance of the boat from the fishway. Klatte will get the Pinniped Task Group on the agenda for May. Whiteaker explained the photo. Fredricks expressed concern about hazing activities close to the fishway, recognizing hazing isn't all that effective.

**4.7. Lamprey updates.**

- 4.7.1. BON WS lamprey structure. Rerecich reported the LPS pumps are scheduled for 7 May. A MOC will be coming out soon. The pumps will be screened. FPOM asked for more details. Rerecich said it will be in the MOC.
- 4.7.2. BON CI LPS mods. Hausmann reported the exit has been completed by FV5-9. The section over the stairs still need to be raised and should be completed by the end of April.
- 4.7.3. Tribal Translocation Collections. McIlraith provided an update on Tribal collection activities. He provided three handouts; 2013 collection Allocation; 2013 Collection Estimates; CRITFC Tribal Translocation Guidelines.
- 4.7.4. JDA Lamprey collection protocols. Still working on the hoist; should be installed by the end of April. No protocol in place yet, but FPOM would like to have an opportunity to look at the hoist in operation to help craft those protocols. Still need to work out: (1) All parties need to agree on time of day and frequency of operation. It is anticipated the tribes will be operating the trap daily from July – August and maybe into September. (2) Need to make sure that any and all operators of the jib crane/hoist are properly trained and that appropriate safety requirements are met. (3) How and where should JDAS trap ops be included in the 2013 FPP?

**4.8. Avian.**

- 4.8.1. Status update on lethal take of gulls at NWW dams. Fone reported NWW is using the USDA EA and doing a FONSI. This is for lethal take of gulls only. LMN opted out of the lethal take option for this year. Spurgeon believes the hazing activity is effective and adequate.
- 4.8.2. LWG bird wire installation. The previously disconnected wires were repaired.
- 4.8.3. LMN hydrocannon repair. Discussed under coordination forms.



- 4.8.4. TDA bent avian line pole. Cordie reported that the wimpy pole has reached a point of failure. The

Project Tech Staff will design a new pole and get it installed this year. The lines are leashed so if the pole breaks, the lines won't be lost.

- 4.8.5.** JDA avian lines. One line is missing. No O&M manuals at this time, but the Project is working toward getting trained on repairing and replacing lines. The missing line is in the middle of the grid and the failure spot appears to be at the connection point on the Washington Shore. Lorz asked if the other lines have been inspected for wear and tear to avoid the loss of more lines. Zyndol said they have been but the concern is not so much wear as stretch. Without winches to tighten the wires in the winter, it is likely they will stretch and break faster than anticipated.

**4.9.** BPA updates.

- 4.9.1.** Bettin asked if MCN would be cleaning screens 8 – 11 July, so it coincides with the BPA RAS testing. **ACTION: Dugger will talk with Bettin and see if that can be accommodated.**

**5. Coordination/Notification forms (need concurrence).**

- 5.1. 13TDA03** TDA-E outage. Would like to close the east entrance to prevent gravel being washed into tail log slots, which impede dewatering units. 29 April is the target date. **FPOM is ok with the closure starting at noon. They also requested looking at getting entrance passage data.** Fredricks and Lorz discussed adding this to the University of Idaho study objectives.
- 5.2. 13IHR05** Temporary unit priority change.
- 5.3. 13LMN01** Hydrocannon repair. Lorz suggested going to pattern without the RSW during the operation or shutting off spill and going to a uniform spill the rest of the day to get closer to the day average. Kiefer favored going to the uniform pattern after the work is complete. **Do the spill change request, see if it is safe enough, if not, then shut spill down completely. Get the repairs done earlier rather than later, when there will be more fish impacted. Shut down the RSW and shift the flow to a uniform pattern. If that doesn't work, shut off spill and then make it up after the work with a uniform patten AND the RSW until the volume is made up.** Fredricks is still wondering if this is worth the impacts to passage
- 5.4. 13LMN-** Unit 1 lubrication not occurring. Looking to change unit priority in the FPP. Bettin suggested last on/first off. Lorz and Fredricks do not believe Unit 2 is "just as good" as Unit 1 for attraction but concerns about oil may be more critical. **FPOM agreed it made more sense to base Unit 1 operation on unit priority without regard to river flow. This will remain in effect until the unit is repaired in 2015.** Kiefer added that IDFG is also doing a study and he wants to make sure FPOM is aware of that study in regards to unit operation. Setter said, based on past experience, she doesn't feel there will be a problem with adult passage based on this change, but if there is evidence on that, then more coordination will need to occur.

- 6. 2013 FPP:** Final 2013 FPP has been posted to the website: <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/2013/index.html>. The 2013 FOP was filed with the court on March 28, and has been posted to the website. This year's FOP was not finalized in time to be printed for inclusion in the 2013 FPP hard copies. There will be no significant changes from the previous year's FOP.

- 6.1.** Outstanding change forms. Find the most current change forms and their status: <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/2013/changes/index.html>

**6.1.1. 13JDA009** Remove ESBS Language. *Approved.*

**6.1.2. 14BON001**

- 6.1.3. **14AppG001** BON update with new observation tanks. Comments noted on the change form. *Approved.*
- 6.1.4. **14AppG002** IHR updated Adult Trapping Operations. Conder said there are more edits. He recommended following the BON and LWG temperature criteria. Conder also asked for a ladder temperature log when temperatures are between 70 – 72 degrees F. **ACTION: Pinney will update the change form after the FPOM discussion and send it to Fone for formal FPOM concurrence.** Conder said another change may be to slide the trap operations time to allow for full processing of fish in the trap. He recommends changing the time to allow four hours of trapping between the hours of 0600 – 1400 when temperatures are less than 65 degrees F. **FPOM generally agreed with the proposed changes.**

## 7. Task Group Updates.

7.1. AFF mods (Rerecich). Rerecich reported that the project is on schedule.

7.1.1. Near-term projects:

- A. Install a new floor in the recovery pool area to hold up a new two stage recovery tank. Extend the exit section of this new tank well upstream of the drain grizzly.
- B. Evaluate potential to improve drain grizzly hydraulics to even out flow distribution.
- C. Extend the return to ladder flume pipes out of the existing building (perhaps with another 90 degree bend around corner of the building).

7.2. BON unit operating range (Lorz). Team members include Baus, Benner, Bettin, Chockley, Conder, Cooper, Fredricks, Hausmann, Hevlin, Lorz, Mackey, Meyer, Tackley, Rerecich, Wills. Next meeting is scheduled for 1430 on 19 March 2013.

7.2.1. **29 January Task Group meeting at 1330 in CRITFC.** Attendees included Kruger, Baus, Wills, Wright, Chockley, Lorz, McCann, Fredricks, and Mackey.

♣**ACTION:** USACE needs to confirm they can operate at the mid-point in local for the season and if this is operationally possible then additional coordination will occur prior to this operation being implemented. . This may be established via teletype or by modifying the GDACS settings to target the mid-range. **STATUS: yes, we can operate in local. GDACS setting changes may occur as soon as this fall and likely by the end of the calendar year.**

♣**ACTION:** Need mid-point table for PH2. Update on PNNL data mining. Understand the juvenile number used in the ratios. Look at day/night operation. **STATUS: mid point range added to BON Table 16. See DRAFT FPP change form 14BON001.**

7.2.2. **12 February 2013 Task Group meeting at 0930 in the CRITFC Sockeye Rm.** In attendance: Baus, Bettin, Conder, Ford, Fredricks, Hausmann, Kruger, Lorz, Mackey, Rerecich, Wills.

♣**ACTION:** Ford will find out how much the governors drift. Mackey will draft a mid-range table for PH2 and draft a change form with the Task Group's proposed operation. **STATUS: midpoint range added to BON Table 16. See DRAFT FPP change form 14BON001.** Rerecich

recommends a specific flow range at all heads rather than having it change as head changes.

- 7.3. BON VBS task group. (Hausmann). Team members include Baus, Bettin, Fredricks, Hausmann, Lorz, Mackey, Rerecich, and Wills. Fredricks said the main purpose it to better clarify the FPP criteria for re-installing screens and how to keep screens in throughout the year.
    - 7.3.1. Next meeting after the April FPOM.
    - 7.3.2. VBS backer screen required bus line clearance.
    - 7.3.3. Hausmann said he has taken a closer look at the reinstallation criteria. In the field, the actually reinstallation was close to the recommended installation criteria.
    - 7.3.4. **ACTION:** Fredricks and Hausmann will write up a change form to update the language for when screens will be re-installed. Fredricks would like the final re-installation decision be left up to the Project. This decision would be based on some data and professional judgment.
  - 7.4. Sturgeon task group (Van der Leeuw or Hausmann). Cordie explained that TDA has protocols for testing the wicket gates and opening them for five minutes to complete that test. He wanted to know if there are any criteria for how long wicket gates should be allowed to be open to allow for testing, maintenance, etc. Fredricks suggested the Task Group should write up the criteria into a change form and get it approved for the FPP.  
**ACTION:** The task group will write up the change form and submit at the May FPOM.
  - 7.5. Fish counting task group (Setter). Team members include Fredricks, Klatte, Mackey, Setter, Tackley, and Wills.
8. Calendar items/ next FPOM agenda items. (Check the CY13 on the website)
    - 8.1. Wills will check on meeting room availability at his office for July.
  9. Kelt counting. Fredricks said he heard the kelt counting stopped once the B2CC was open.  
**ACTION:** Klatte will check with FFU to see when the video monitoring stopped.

**Memorandums of Coordination**



**COORDINATION TITLE- 13TDA03 Unit 18 OOS**

**COORDINATION DATE- 21 Feb 2013**

**PROJECT- The Dalles Lock and Dam**

**RESPONSE DATE- 28 Feb 2013**

**Description of the problem-** Unit 18 is a fish priority unit due to its open sluiceways. Attempts were made to schedule it during the non fish passage season for overhaul maintenance, however due to various schedule complications it is now scheduled for Mar 3 to approx Apr 15 to accomplish necessary workload. Technically this is adhering to what the FPP states, however, we felt FPOM should still be notified of the change in operation.

**Type of outage required-** Unit 18 and associated sluiceways.

**Impact on facility operation-**Change to unit 19 as priority operating unit.

**Length of time for repairs-** 5-6 weeks

**Expected impacts on fish passage-** Minimal impacts expected. Per consultation with Fenton Khan and reviewing data, making unit 19 the replacement priority unit and opening its sluiceways, the same passage efficiency is expected.

**Comments from agencies**

**Final results**



**COORDINATION TITLE- 13 IHR 05 Ice Harbor Temporary Unit Priority Change**

**COORDINATION DATE- 28 March 2013**

**PROJECT- Ice Harbor Dam**

**RESPONSE DATE- Responses are requested ASAP**

**Description of the problem-** Main Turbine Unit #6 continued operation (based on recent oil analysis) is unreliable and will eventually trip off line due to governor issues associated with the oil. On January 17, 2013 Main Unit #6 was put in service because of the trips on other units. The unit has been being used to supplement generation and avoid spilling water over the spillway since 1/17/13. The unit was out of service prior to 1/17/13 to determine the issue with the oil in the governor system. Now that Units 2 and 3 are starting to be returned to service, it is the desire of the Project as to prevent further damage to unit 6, to run this unit last in priority until after spring run-off when the unit can be taken out of service. This will avoid elevated gas levels in the river during spring runoff.

**Type of outage required-** It is requested that Main Turbine Unit 6 be operated last on in Turbine Priority.

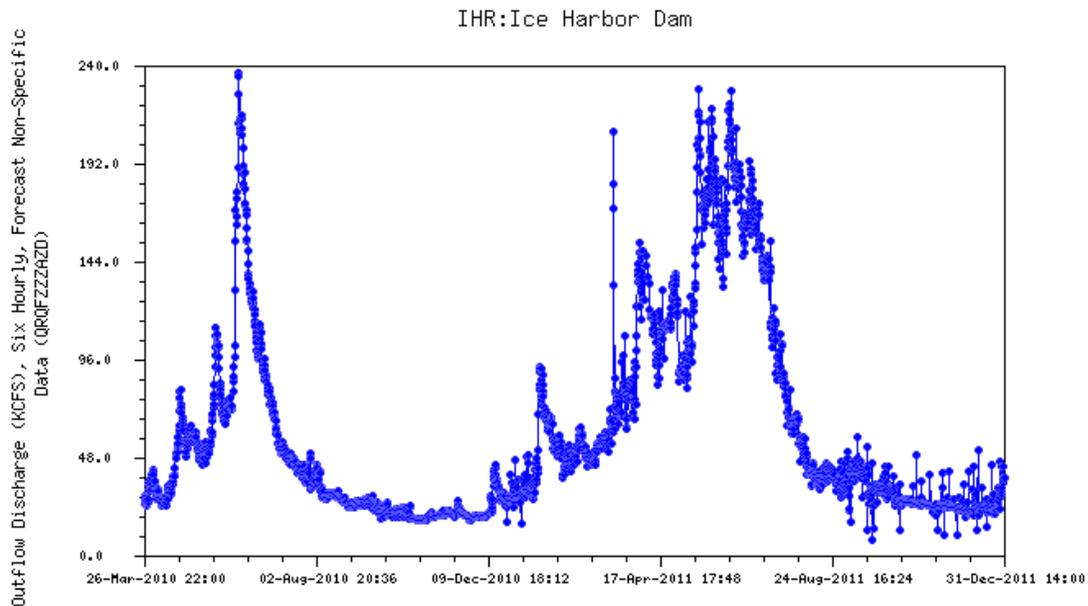
**Impact on facility operation-** This work expected to begin between June 1 – July 30. Unit #6 will be operated last on until repairs can be made. The current main unit priority is 1,3,6,4,2,5 and the proposed main unit priority is 1,3,4,2,5, and 6.

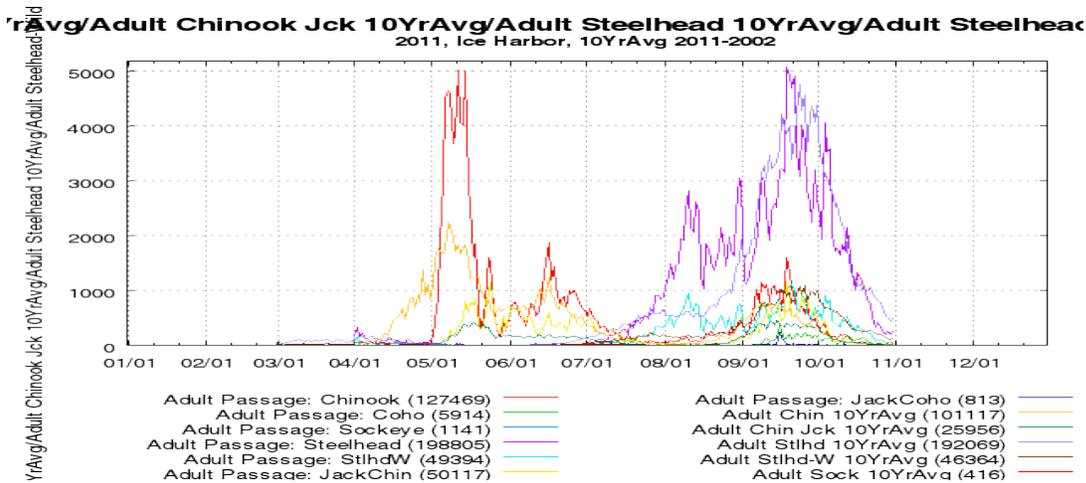
**Dates of impacts/repairs-** Repairs are to be made when river flows reduce as to not requiring Main Turbine Unit 6 operation for lowering dissolved gases as opposed to increased spill due to exceeding Powerhouse capacity of 96 kcfs.

**Length of time for repairs-** Repairs to the unit governor are scheduled to occur while this unit is taken out of service for annual maintenance and possible blade cracking repairs. Estimated time frame is 4 months.

**Expected impacts on fish passage:**

Reduced flow by the North Powerhouse Adult Fish Ladder should have minimal adult fish attraction effect due to the Project spilling for juvenile fish passage during this time period providing additional flow. A change in the eddy at the juvenile fish bypass outfall (observed in the past) that is formed by spill and generation causes the outflow to travel upriver toward the powerhouse may affect juvenile fish resident time. See below graphs for historical water discharge and fish passage during the proposed time period of the event.





**Comments from agencies**

**Final results**



**COORDINATION TITLE-** *(filled in by NWP or NWW OD Bio)*

**COORDINATION DATE-** April 9, 2013

**PROJECT-** Lower Monumental Dam

**RESPONSE DATE-**

**Description of the problem**

As you are probably aware the suction line of the new bypass outfall bird sprinklers at LoMo has been freeze damaged. I have been in contact with Shawn Nelson (the PM for the construction of the outfall last year) and money for replacement parts can be accessed through them but with pipes requiring shaping that is not likely to be real quick. We have purchased PVC pipe and couplings that (hopefully) will work to get us through the season until we can deal with this in mid-June after bird numbers drop. This work brings into play a notable problem...spill.

**Type of outage required**

This work must be largely done from a boat. The tailrace during spill is anything but a stable work platform. For safety sake, we will need the spill to be off while this work is done. We believe that this work will take less than one work day. We would like to do this work early next week before flows get too high which may prevent being able to have all spillways closed. The proposed day for this work is Tuesday April 16.

**Impact on facility operation**

Eight hours of not meeting spill criteria. Greater numbers of units operating to pass the river flow.

We have contracted for double shifts of bird hazing to run May 6 through June 2 (2 x 8 hour shifts approximately dawn to dusk) so if not doing this work is the desired alternative, hazing is covered throughout the historical juvenile fish peak passage period.

Once collection for transport begins, far fewer fish will be exposed at this location and those exposed will largely be PIT tagged in river passage groups.

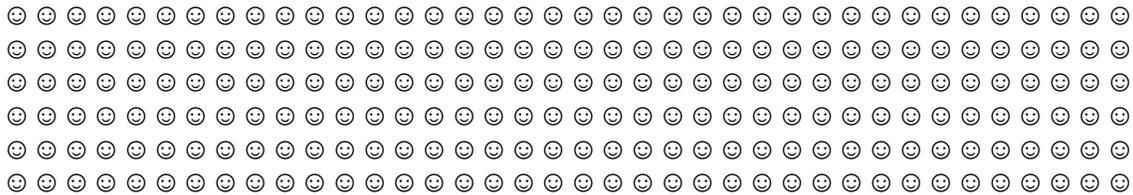
**Dates of impacts/repairs-** April 16, 2013.

**Length of time for repairs-** Approximately one work day (9 hours).

**Expected impacts on fish passage-** The result of not doing this work would be increased fish mortality in typical hazing areas as the hazing effort was shifted to this area of far greater fish vulnerability. As collection for transport begins, far fewer fish will be using the outfall and bird numbers will likely fall at this location. Total bird related mortality for the season would be higher than normal as the bypass outfall is far down river from the rest of the hazing areas making covering all zones far less effective.

### Comments from agencies

#### Final results



FPP Change Forms



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**Change Request Number & Title:** 13JDA009 Remove ESBS Language

**Date Submitted:** 04/02/2013

**Project:** JDA

**Requester Name, Agency:** COE-NWP

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**Location of Change - FPP Project and Section:**

JDA Section 2.4.1.3.a. Juvenile Fish Passage Facilities –Winter Maintenance Period

JDA Table JDA-6. Turbine Operating Ranges within 1% of Peak Efficiency at John Day Dam.

JDA Table JDA-7. Turbine Operating Ranges within 1% with No Screens Installed

**Proposed Changes (in track changes to existing section):**

Remove all references to ESBSs at JDA, since they are no longer in use at the project.

See **Tables JDA-6** and **JDA-7** on following pages with proposed changes.

- **Table JDA-6** – deleted “With ESBSs Installed” values, and replaced with “No STSs Installed” values as provided in Table JDA-7 (combined Tables JDA-6 and JDA-7).
- **Table JDA-7** – deleted table and inserted values into Table JDA-6.

**2.4.1.3. December 1 through March 31 (Winter Maintenance Period).**

**a.** Screens (STS, ~~ESBS~~) will remain in place through December 15 to prevent adult salmonids from falling back through turbine units, thereby shortening some aspects of the winter maintenance period by two weeks. To reduce adult fallback mortality, the juvenile bypass system (JBS) channel will operate from November 30 through December 15. Priority units will be left screened during this period to the extent practicable (barring operational failure), and screens from non-priority units will only be removed when necessary to begin maintenance. After December 15, all STSs may be removed.

Table JDA-6 – deleted “With ESBSs Installed” values, and replaced with “No STSs Installed” values as provided in Table JDA-7 (combined Tables JDA-6 and JDA-7).

**Table JDA-6. Turbine Operating Ranges Within 1% of Peak efficiency at John Day Dam.**

| Head<br>(feet) | <u>With STSs Installed *</u> |        |                |        | <u>With ESBSs Installed **</u> |        |                |        |
|----------------|------------------------------|--------|----------------|--------|--------------------------------|--------|----------------|--------|
|                | 1% Lower Limit               |        | 1% Upper Limit |        | 1% Lower Limit                 |        | 1% Upper Limit |        |
|                | (MW)                         | (cfs)  | (MW)           | (cfs)  | (MW)                           | (cfs)  | (MW)           | (cfs)  |
| 80             | 65.4                         | 11,338 | 118.0          | 20,472 |                                |        |                |        |
| 81             | 66.7                         | 11,416 | 120.8          | 20,671 |                                |        |                |        |
| 82             | 68.1                         | 11,492 | 123.6          | 20,864 |                                |        |                |        |
| 83             | 69.4                         | 11,566 | 126.4          | 21,052 |                                |        |                |        |
| 84             | 70.8                         | 11,638 | 129.1          | 21,234 |                                |        |                |        |
| 85             | 72.1                         | 11,707 | 131.9          | 21,411 | 69.6                           | 11,396 | 111.5          | 18,269 |
| 86             | 72.9                         | 11,692 | 134.7          | 21,593 | 70.3                           | 11,381 | 113.7          | 18,402 |
| 87             | 73.7                         | 11,676 | 137.5          | 21,770 | 71.1                           | 11,366 | 115.9          | 18,531 |
| 88             | 74.5                         | 11,661 | 140.2          | 21,942 | 71.9                           | 11,351 | 118.1          | 18,657 |
| 89             | 75.3                         | 11,646 | 143.0          | 22,110 | 72.6                           | 11,336 | 120.3          | 18,779 |
| 90             | 76.1                         | 11,632 | 145.8          | 22,274 | 73.4                           | 11,322 | 122.5          | 18,898 |
| 91             | 77.0                         | 11,622 | 146.9          | 22,164 | 74.3                           | 11,313 | 122.9          | 18,717 |
| 92             | 77.9                         | 11,613 | 148.0          | 22,057 | 75.1                           | 11,304 | 123.2          | 18,540 |
| 93             | 78.8                         | 11,604 | 149.1          | 21,951 | 76.0                           | 11,295 | 123.6          | 18,367 |
| 94             | 79.7                         | 11,595 | 150.2          | 21,848 | 76.9                           | 11,285 | 123.9          | 18,197 |
| 95             | 80.6                         | 11,585 | 151.3          | 21,746 | 77.7                           | 11,276 | 124.3          | 18,031 |
| 96             | 81.7                         | 11,604 | 151.6          | 21,532 | 78.8                           | 11,294 | 124.4          | 17,841 |
| 97             | 82.8                         | 11,623 | 151.8          | 21,323 | 79.8                           | 11,312 | 124.6          | 17,654 |
| 98             | 83.8                         | 11,640 | 152.1          | 21,118 | 80.9                           | 11,329 | 124.7          | 17,472 |
| 99             | 84.9                         | 11,657 | 152.4          | 20,917 | 81.9                           | 11,346 | 124.8          | 17,293 |
| 100            | 86.0                         | 11,674 | 152.7          | 20,720 | 82.9                           | 11,361 | 125.0          | 17,117 |
| 101            | 86.9                         | 11,675 | 154.9          | 20,800 | 83.8                           | 11,363 | 126.6          | 17,163 |
| 102            | 87.9                         | 11,677 | 155.2          | 20,613 | 84.7                           | 11,364 | 128.3          | 17,207 |
| 103            | 88.8                         | 11,678 | 155.2          | 20,378 | 85.6                           | 11,365 | 129.9          | 17,250 |
| 104            | 89.7                         | 11,679 | 155.2          | 20,149 | 86.5                           | 11,367 | 131.6          | 17,293 |
| 105            | 90.6                         | 11,680 | 155.2          | 19,923 | 87.4                           | 11,367 | 133.2          | 17,334 |
| 106            | 91.4                         | 11,658 | 155.2          | 19,711 |                                |        |                |        |
| 107            | 92.1                         | 11,637 | 155.2          | 19,503 |                                |        |                |        |
| 108            | 92.8                         | 11,615 | 155.2          | 19,299 |                                |        |                |        |
| 109            | 93.6                         | 11,594 | 155.2          | 19,098 |                                |        |                |        |
| 110            | 94.3                         | 11,574 | 155.2          | 18,901 |                                |        |                |        |

\* The turbine efficiency table was revised to reflect information using a 2001 Unit 9 NS index test and a 1962 model test with STS adjustment Factor (Table JDA-6 revised 2005). Table prepared by HDC dated November 2002.

~~\*\*John Day Dam turbine efficiency tables are being revised to reflect new data. This table is based on data from Little Goose Dam (LGS-5).~~

Table JDA-7 – deleted table and inserted values into Table JDA-6.

**Table JDA-7. Turbine Operating Ranges Within 1% of Peak Efficiency with No Screens Installed at John Day Dam.**

| Head<br>(Feet) | 1% Lower Limit (No Screens) |        | 1% Upper Limit (No Screens) |        |
|----------------|-----------------------------|--------|-----------------------------|--------|
|                | (MW)                        | (cfs)  | (MW)                        | (cfs)  |
| 80             | 71.7                        | 12,305 | 122.8                       | 21,074 |
| 81             | 73.2                        | 12,391 | 125.7                       | 21,290 |
| 82             | 74.7                        | 12,473 | 128.7                       | 21,500 |
| 83             | 76.1                        | 12,554 | 131.6                       | 21,703 |
| 84             | 77.6                        | 12,631 | 134.6                       | 21,901 |
| 85             | 79.1                        | 12,707 | 137.5                       | 22,093 |
| 86             | 80.0                        | 12,690 | 140.1                       | 22,223 |
| 87             | 80.9                        | 12,674 | 142.6                       | 22,349 |
| 88             | 81.7                        | 12,657 | 145.1                       | 22,471 |
| 89             | 82.6                        | 12,641 | 147.6                       | 22,591 |
| 90             | 83.5                        | 12,625 | 150.2                       | 22,707 |
| 91             | 84.5                        | 12,616 | 151.7                       | 22,656 |
| 92             | 85.5                        | 12,606 | 153.2                       | 22,606 |
| 93             | 86.4                        | 12,596 | 154.8                       | 22,556 |
| 94             | 87.4                        | 12,586 | 155.1                       | 22,321 |
| 95             | 88.4                        | 12,576 | 155.2                       | 22,062 |
| 96             | 89.6                        | 12,597 | 155.2                       | 21,797 |
| 97             | 90.8                        | 12,617 | 155.2                       | 21,538 |
| 98             | 92.0                        | 12,636 | 155.2                       | 21,284 |
| 99             | 93.1                        | 12,655 | 155.2                       | 21,035 |
| 100            | 94.3                        | 12,673 | 155.2                       | 20,792 |
| 101            | 95.3                        | 12,675 | 155.2                       | 20,554 |
| 102            | 96.4                        | 12,676 | 155.2                       | 20,321 |
| 103            | 97.4                        | 12,678 | 155.2                       | 20,092 |
| 104            | 98.4                        | 12,679 | 155.2                       | 19,868 |
| 105            | 99.4                        | 12,680 | 155.2                       | 19,649 |
| 106            | 100.2                       | 12,656 | 155.2                       | 19,442 |
| 107            | 101.0                       | 12,633 | 155.2                       | 19,239 |
| 108            | 101.8                       | 12,610 | 155.2                       | 19,040 |
| 109            | 102.6                       | 12,587 | 155.2                       | 18,845 |
| 110            | 103.5                       | 12,565 | 155.2                       | 18,653 |

**NOTE:** The turbine efficiency table was revised to reflect information using a 2001 Unit-9 NS index test and a 1962 model test (Table JDA-8 revised, 2006). Table prepared by HDC dated November 2002.

Proposed updated Table JDA-6 (combines Tables JDA-6 and JDA-7) – deleted “ESBS” values and replaced with “No STSs” values.

**Table JDA-6. John Day Dam Turbine Unit Output (MW) and Discharge (cfs) at the Upper and Lower Limits of the 1% of Peak Efficiency Operating Range With and Without Submersible Traveling Screens (STSs) Installed.**

| Head<br>(feet) | With STSs Installed * |        |                |        | No STSs Installed * |        |                |        |
|----------------|-----------------------|--------|----------------|--------|---------------------|--------|----------------|--------|
|                | 1% Lower Limit        |        | 1% Upper Limit |        | 1% Lower Limit      |        | 1% Upper Limit |        |
|                | (MW)                  | (cfs)  | (MW)           | (cfs)  | (MW)                | (cfs)  | (MW)           | (cfs)  |
| 80             | 65.4                  | 11,338 | 118.0          | 20,472 | 71.7                | 12,305 | 122.8          | 21,074 |
| 81             | 66.7                  | 11,416 | 120.8          | 20,671 | 73.2                | 12,391 | 125.7          | 21,290 |
| 82             | 68.1                  | 11,492 | 123.6          | 20,864 | 74.7                | 12,473 | 128.7          | 21,500 |
| 83             | 69.4                  | 11,566 | 126.4          | 21,052 | 76.1                | 12,554 | 131.6          | 21,703 |
| 84             | 70.8                  | 11,638 | 129.1          | 21,234 | 77.6                | 12,631 | 134.6          | 21,901 |
| 85             | 72.1                  | 11,707 | 131.9          | 21,411 | 79.1                | 12,707 | 137.5          | 22,093 |
| 86             | 72.9                  | 11,692 | 134.7          | 21,593 | 80.0                | 12,690 | 140.1          | 22,223 |
| 87             | 73.7                  | 11,676 | 137.5          | 21,770 | 80.9                | 12,674 | 142.6          | 22,349 |
| 88             | 74.5                  | 11,661 | 140.2          | 21,942 | 81.7                | 12,657 | 145.1          | 22,471 |
| 89             | 75.3                  | 11,646 | 143.0          | 22,110 | 82.6                | 12,641 | 147.6          | 22,591 |
| 90             | 76.1                  | 11,632 | 145.8          | 22,274 | 83.5                | 12,625 | 150.2          | 22,707 |
| 91             | 77.0                  | 11,622 | 146.9          | 22,164 | 84.5                | 12,616 | 151.7          | 22,656 |
| 92             | 77.9                  | 11,613 | 148.0          | 22,057 | 85.5                | 12,606 | 153.2          | 22,606 |
| 93             | 78.8                  | 11,604 | 149.1          | 21,951 | 86.4                | 12,596 | 154.8          | 22,556 |
| 94             | 79.7                  | 11,595 | 150.2          | 21,848 | 87.4                | 12,586 | 155.1          | 22,321 |
| 95             | 80.6                  | 11,585 | 151.3          | 21,746 | 88.4                | 12,576 | 155.2          | 22,062 |
| 96             | 81.7                  | 11,604 | 151.6          | 21,532 | 89.6                | 12,597 | 155.2          | 21,797 |
| 97             | 82.8                  | 11,623 | 151.8          | 21,323 | 90.8                | 12,617 | 155.2          | 21,538 |
| 98             | 83.8                  | 11,640 | 152.1          | 21,118 | 92.0                | 12,636 | 155.2          | 21,284 |
| 99             | 84.9                  | 11,657 | 152.4          | 20,917 | 93.1                | 12,655 | 155.2          | 21,035 |
| 100            | 86.0                  | 11,674 | 152.7          | 20,720 | 94.3                | 12,673 | 155.2          | 20,792 |
| 101            | 86.9                  | 11,675 | 154.9          | 20,800 | 95.3                | 12,675 | 155.2          | 20,554 |
| 102            | 87.9                  | 11,677 | 155.2          | 20,613 | 96.4                | 12,676 | 155.2          | 20,321 |
| 103            | 88.8                  | 11,678 | 155.2          | 20,378 | 97.4                | 12,678 | 155.2          | 20,092 |
| 104            | 89.7                  | 11,679 | 155.2          | 20,149 | 98.4                | 12,679 | 155.2          | 19,868 |
| 105            | 90.6                  | 11,680 | 155.2          | 19,923 | 99.4                | 12,680 | 155.2          | 19,649 |
| 106            | 91.4                  | 11,658 | 155.2          | 19,711 | 100.2               | 12,656 | 155.2          | 19,442 |
| 107            | 92.1                  | 11,637 | 155.2          | 19,503 | 101.0               | 12,633 | 155.2          | 19,239 |
| 108            | 92.8                  | 11,615 | 155.2          | 19,299 | 101.8               | 12,610 | 155.2          | 19,040 |
| 109            | 93.6                  | 11,594 | 155.2          | 19,098 | 102.6               | 12,587 | 155.2          | 18,845 |
| 110            | 94.3                  | 11,574 | 155.2          | 18,901 | 103.5               | 12,565 | 155.2          | 18,653 |

\* The turbine efficiency table was revised to reflect information using a 2001 Unit 9 NS index test and a 1962 model test with STS adjustment Factor (Table JDA-6 revised 2005). Table prepared by HDC dated November 2002.

**Justification for Change:**

The three JDA ESBS prototypes were transferred to LGS in February 2013 and are no longer at JDA.

**Comments from others:**

**Record of Final Action:**

