

CENWP-OD

10 January 2008

MEMORANDUM FOR THE RECORD

Subject: FINAL Minutes for the 10 January 2008 FPOM meeting.

The meeting was held in the Summit Room, Robert Duncan Plaza, Portland District. In attendance:

<b>Last</b>	<b>First</b>	<b>Agency</b>	<b>Office</b>	<b>Email</b>
Adams	Jim	USACE	503-808-3938	<a href="mailto:James.r.adams@usace.army.mil">James.r.adams@usace.army.mil</a>
Ayers	Dick	ACTIX		
Ayers	Evan	ACTIX		
Bailey	John	USACE	509-527-7123	<a href="mailto:John.c.bailey@usace.army.mil">John.c.bailey@usace.army.mil</a>
Benner	David	FPC	503-230-7564	<a href="mailto:dbenner@fpc.org">dbenner@fpc.org</a>
Bettin	Scott	BPA	503-230-4573	<a href="mailto:swbettin@bpa.gov">swbettin@bpa.gov</a>
Boyd	Scott	USACE	503-808-3995	<a href="mailto:Scott.w.boyd@usace.army.mil">Scott.w.boyd@usace.army.mil</a>
Fredricks	Gary	NOAA	503-231-6855	<a href="mailto:Gary.fredricks@noaa.gov">Gary.fredricks@noaa.gov</a>
Griffith	Dave	USACE	503-808-4773	<a href="mailto:David.w.griffith@usace.army.mil">David.w.griffith@usace.army.mil</a>
Hausmann	Ben	USACE	541-374-4598	<a href="mailto:Ben.j.hausmann@usace.army.mil">Ben.j.hausmann@usace.army.mil</a>
Hevlin	Bill	NOAA	503-230-5415	<a href="mailto:Bill.hevlin@noaa.gov">Bill.hevlin@noaa.gov</a>
Klatte	Bern	USACE	503-808-3943	<a href="mailto:Bernard.a.klatte@usace.army.mil">Bernard.a.klatte@usace.army.mil</a>
Kruger	Rick	ODFW	971-673-6012	<a href="mailto:Rick.kruger@state.or.us">Rick.kruger@state.or.us</a>
Lee	Randy	USACE	503-808-4876	<a href="mailto:Randall.t.lee@usace.army.mil">Randall.t.lee@usace.army.mil</a>
Mackey	Tammy	USACE	503-808-4305	<a href="mailto:Tammy.m.mackey@usace.army.mil">Tammy.m.mackey@usace.army.mil</a>
Martinson	Rick	PSMFC	541-296-8989	<a href="mailto:rickdm@gorge.net">rickdm@gorge.net</a>
Moody	Greg	USACE	509-527-7124	<a href="mailto:Gregory.p.moody@usace.army.mil">Gregory.p.moody@usace.army.mil</a>
Richards	Steven	WDFW	509-545-2050	<a href="mailto:richaspr@dfw.wa.gov">richaspr@dfw.wa.gov</a>
Stansell	Robert	USACE	541-374-8801	<a href="mailto:Robert.j.stansell@usace.army.mil">Robert.j.stansell@usace.army.mil</a>
Stephenson	Ann	WDFW	360-906-6769	<a href="mailto:stephaes@dfw.wa.gov">stephaes@dfw.wa.gov</a>
Swenson	Larry	NOAA	503-230-5448	<a href="mailto:Larry.swenson@noaa.gov">Larry.swenson@noaa.gov</a>
Wills	Dave	USFWS	360-604-2500	<a href="mailto:David_wills@fws.gov">David_wills@fws.gov</a>
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Ben Hausmann, Dick Ayers, and Evan Ayers called in.

1. November FPOM meeting minutes were approved.

**2. Action Items.**

- 2.1 [long time ago] Switch Gate Seal at BON: **ACTION:** JDA and BON will collaborate on new, possibly air bladder, seals. B. Hausmann needs more information regarding the continuous flushing flow request from NOAA Fisheries. **STATUS:** *Bonneville believes they have found a way to reduce leakage around the nose of the gate. They will be pursuing this during winter maintenance 07/08. This item will be carried over to future meetings while JDA continues to work on air bladder seals. NWW would like to see the final product to see if it is applicable at their projects.*
- 2.2 [Aug 07] Draft tube grizzly drains. **ACTION:** BON and TDA to work on a new grizzly design. **STATUS:** *B. Hausmann has drawings in hand. He recommends sending this project to the Small Projects group. G. Fredricks would like to see some regional overview and input. He recommended the Martin Ahmann, at least, be included.*
- 2.3 Discussion of JDA SMF future operations. **ACTION:** D. Schwartz will set up a meeting for all the necessary participants to really, thoroughly discuss the future monitoring needs at the JDA SMF. **STATUS:** *Waiting for FPAC to discuss. It was recommended a message be sent to Paul Wagner to get the discussion on the FPAC agenda.*

## FINAL 10 January 2008 FPOM MINUTES

- 2.4 [Oct 07] Water Management Plan altered operations for navigation. **ACTION:** B. Hevlin, J. Bailey and J. Adams will discuss appropriate language for inclusion in the FPP. **STATUS:** *This issue will be handled by TMT through in-season planning protocols. Further discussion occurred regarding the need to get the tug boat operators down to ERDC to look at the proposed patterns.*
- 2.5 [Jan 08] Altered spill operations for navigation. **ACTION:** B. Klatte will contact R. Wertheimer, K. Hanson, A. Setter and L. Ebner to discuss getting the tug operators down to ERDC during the 28 Jan-1 Feb trip.
- 2.6 [Nov 07] TDA stub weir removal. **ACTION:** D. Clugston to provide cost estimates and the Schlenker analysis. **STATUS:** **Currently on hold, but will be kept in Action Items for now.**
- 2.7 [Nov 07] JDA FOG testing procedure. **ACTION:** B. Cordie will incorporate test results in an FPP change request form. **STATUS:** *D Benner reported that the test has been completed. There are two options: close two FOGs or reduce gate opening criteria from eight feet to six feet. M. Zyndol provided a handout with the details of the tests. Velocities were not measured during all days of testing. G. Fredricks indicated velocity was less critical than the head differential. FPOM discussed whether it is better to close FOGs or raise entrance gates. Closed FOGs would remain closed but the entrance could be modified when necessary. On the other hand, an entrance change may have a more significant impact than closing the FOGs. A couple new actions came from this discussion.*
- 2.8 [Jan 08] JDA FOG/entrance closure during fish pump outages. **ACTION:** D. Clugston will find the Peery/UI report that can answer some of the questions about which option (closing FOGs or adjusting entrance gates) would be better for fish. B. Klatte will get the report from Clugston and send it to FPOM. **STATUS:** *D. Clugston sent the report on 22 January. It was sent to FPOM that same day.*
- 2.9 [Jan 08] JDA FOG/entrance closure during fish pump outages. **ACTION:** R. Lee will talk with the Project Fisheries about running HELCRABS with the two options. Results will be presented at FPOM.
- 2.10 [Jan 08] Fish counter check in and out procedures. **ACTION:** Mackey and Bailey will collect proper protocols for check in and out for each Project. This information will be sent to G. Moody. **STATUS:** *Generic language is best for the contract. Each Project will ensure that the check-in procedures are detailed at annual safety talks.*
- 2.11 [Jan 08] Late season counting ended around 20 December at Lower Granite. **ACTION:** WDFW will send counts to Moody, who will then let FPOM know when the counts are posted.
- 2.12 [Jan 08] Sea lion deterrent presentation by ACTIX. **ACTION:** Gary will take information to Garth (NOAA).
- 2.13 [Jan 08] Sea lion task group. **ACTION:** S. Bettin is the chairperson with Fredricks (and other appropriate NOAA rep), Stephenson, Stansell, S. Richards, R. Kruger, D. Wills, B. Hausmann, and D. Benner as group members. First task is to do a literature search for the sensitivities of our native fishes.
- 2.14 [Jan 08] B2CC closing date. **ACTION:** B. Hausmann to compile the cost of a rigging crew to come in and close the B2CC on 31 August. **STATUS:** *Estimated cost for a rigging crew on Labor Day weekend runs around \$700-\$1000.*
- 2.15 [Jan 08] Avian lethal take. **ACTION:** Cordie will take the lead in further pursuit of filing the application and working towards lethal take.
- 2.16 [Jan 08] FPP hard copies. **ACTION:** Everyone will get their hard copy numbers to S. Boyd by the next FPOM meeting.
- 2.17 [Jan 08] Fish release site at BON. **ACTION:** Mackey to contact E. Hall for an update. She will send information to FPOM. **STATUS:** *E. Hall indicated she should receive 100% drawings by 11 January. Once the 100% drawings are received and approved, it should only take about 10-15 days to complete the project.*
- 2.18 [Jan 08] Fish release site at BON. **ACTION:** Bettin will coordinate with Bailey to get one big trailer by 10 March from NWW. **STATUS:** *Bettin initiated coordination on 14 January.*
- 2.19 [Jan 08] FPOM meeting minutes. **ACTION:** Mackey will find a digital recorder that can transfer files to a PC for storage and future retrieval. **STATUS:** *Mackey found a new recorder. The order request was submitted on 17 January.*

**3. Updates. (B. Klatte)**

- 3.1 Pinnipeds return to Bonneville. States started hazing Steller sea lions in December. Large numbers of sturgeon were found in the Bradford Is. fishway so seal bomb use was curtailed in the BRZ until the ladder was dewatered. Seal bomb use resumed 20-31 December. It ended a couple of days prior to the placement of the B-Branch entrance pool bulkheads and will resume once those bulkheads are placed on 2 January. Hazing is currently underway three times a week. Full time hazing will occur from March- May. Sea lions were observed taking 13 sturgeon. FFU will be utilizing volunteer observers from PSU this year. Observers will be all the way down to Hamilton Creek.
- 3.2 No sturgeon, or any fish as all, were found in the B-Branch entrance during dewatering on 7 January. The Project used diffuser flow to encourage any fish to leave. As a rule, seal bombs will no longer be allowed just prior to dewatering activities. We don't know why we saw more sturgeon this year, but we will take all precautions to reduce the potential repeat of 100's of sturgeon accumulating in the fishways prior to dewatering.
  - 3.2.1 It was suggested that maybe the sturgeon were in the ladder due to a food source coming in through the diffuser grates. Biologists did not find any abnormal accumulation of dead fish or live fish under the diffuser grates.
- 3.3 There was a change in the lamprey distribution policy. The Umatilla and Nez Perce tribes will each be collecting 500 lamprey from JDA and TDA dewaterings. Any lamprey salvaged, after the tribes have collected their fish, will be returned to the river. This policy change occurred on 3 December.
- 3.4 TDA galvanized steel. The junction pool grates look good so no need to install new ones this winter. The grates are currently stored along side the ladders. With the rain, zinc may leach into the ladders. **FPOM says it would be best to find a place to store grates away from the fishways.**
- 3.5 JDA optimization study. Work is being done to prep for the spring study. There will be a request for some spill on 16 January and possibly on 17 January. Exact timing/ amount still unknown but RCC will be coordinating the teletype as soon as those details are worked out.
- 3.6 Ice Harbor dewatering. South Ladder unwatered to tailrace elevation January 9 for winter maintenance.
- 3.7 Lower Monumental dewatering. Juvenile collection channel unwatered and taken out of service January 2. The upper section of north ladder was unwatered January 7, followed by the lower section on January 9. The south ladder is to be unwatered in February.
- 3.8 Little Goose dewatering. Ladder dewatered January 3 for winter maintenance. One juvenile steelhead and one juvenile Chinook were salvaged and released.
- 3.9 Little Goose cormorant take. Research involving limited take of cormorants to determine species composition and degree of fish consumption commenced October 4. The final fourth and final "take" took place December 28. Results of the researcher will be provided at future FPOM meetings.
- 3.10 Lower Granite. On 2 January, Lower Granite project personnel dewatered the juvenile bypass AND the adult fish ladder from the exit to a few weirs above the junction pool. Fish salvaged from the ladder included 5 adult steelhead, 1 juvenile steelhead and 3 shad. On January 9, the powerhouse section of the collection channel was unwatered in the morning, followed by the dewatering of the spillway section of the collection channel in the afternoon. Fish salvaged included 2 adult steelhead and 5-6 juvenile steelhead.
- 3.11 An emergency navigation lock outage prevented powerhouse crews from raising the remaining deployed ESBS until December 31. The collection channel and JBS was unwatered January 2.

**4. WDFW fish counting. A review of the plan for the 2008 counting season. (Stephenson)**

- 4.1. A. Stephenson received a request for verification of early arriving chum. Video counting, for verification of counts, is not currently a contractual obligation.

- 4.2. Shad counts end 8/31- why? Perhaps a note could be put on the website indicating the end of shad counting. Another suggestion was to use NC instead of 0 for those species not counted. There was a bit of discussion about the need to count shad and what sudden changes in shad numbers might mean as far as operations. Stephenson said that even if shad numbers were not officially recorded, any unusual changes would still cause the counters to call Project Fisheries.
- 4.3. Lamprey counts are difficult due to the dark floor. Is there some way to make the floor lighter and keep the window clean so lamprey could be counted easier? The lower section of the window is manually cleaned at some projects. The problem tends to be the round window cleaner brush and the square corners of the count windows and floors. There is always a gap that doesn't get clean.
- 4.4. There was some discussion about the contract. A. Stephenson pointed out that the contract details specific check in and out protocols which are outdated. **ACTION:** Mackey and Bailey will collect proper protocols for check in and out for each Project. This information will be sent to G. Moody.
- 4.5. Late season counting ended around 20 December at Lower Granite. **ACTION:** WDFW will send counts to Moody. Moody will let FPOM know when the corrected counts are posted.

**5. Sea lion hazing methods. BPA would like FPOM to review specs for the [sea lion deterrent device \(SLDD\)](#) and [ACTIX's proposal](#). ACTIX called in at 0945.**

**5.1.** ACTIX approached BPA (S. Bettin) regarding their technology. Evan Ayers provided the following history. The technology was developed in response to serious attacks by sea lions on the sports fishing industry in San Diego, California. Our technology, originally developed for military applications, develops a tremendous shock wave that travels omni-directional in the water without the tremendous energy release into the ocean environment that explosives cause. We arranged a test in 1995 with the Sportsfishing Association of California on a fishing charter outside of San Diego bay with our own demonstration test unit. We were able to stand off all sea lion attacks while the fishing was able to continue. Additionally, we were able to scare away two other sea lions from another vessel at over 50 yards distance and by the end of the day the sea lions did not return to the area. Based upon the successful results of our test in 1995, we received a contract in 1997 to build a portable device to be operated from San Diego sportsfishing vessels. Initial test data for the pressure levels and waveforms were captured and recorded by Greeneridge Services, Inc. and testing against sea lions was to be started in late 1998. However, due to the threat of a lawsuit brought by the Humane Society, all further testing was halted. In the following year the California Coastal Commission denied a permit to deploy the technology. In 2000, a comprehensive study was conducted by the U.S. Navy's SPAWAR facility at Point Loma, which showed the device did not permanently harm two sea lions subjected to several hundred shots from the device. The publication of this data did not change any decision by the California Coastal Commission and no further work was done. Given the political climate in California, where any means to effectively deal with the sea lion problem is considered inhumane, we did not pursue the program any further. Our technology is able to more effectively couple the shock wave energy when compared to conventional explosives and offers the ability to adjust the power levels when needed, making it difficult for sea lions to acclimate to the pulses. Most recently in 2004, in tests on human divers at the U.S. Navy's Naval Underwater Weapons Center (NUWC) at Dodge Pond, Connecticut, our technology developed sufficient sound pressure to force the diver out of the water at over 120 yards. We believe this system can be deployed at fixed locations such as a buoy mooring and set to fire at either a random pattern to keep the sea lions from congregating in the area or set to go off when they arrive at a specific distance. The device is also compact enough to be mounted on a boat to provide mobile enforcement. We also have copies of all independent reports from Greeneridge Services, Inc. and the U.S. Navy verifying the sound pressure and waveform measurements. One major point I would like to make is that our system is not the same as the "sparker" technology developed by

EG&G in the early 1950s. Our technology releases all of its energy in the microsecond domain versus the sparker technology in the millisecond domain. The faster energy release greatly increases the strength of the shock wave and produces no air bubble. We do not saturate the area with sound, unlike low frequency active sonar devices. Another point is in 2001, ACTIX became the successor to all the technology developed by Pulse Power Technology, Inc. (PPTI).

- 5.2. FPOM wanted to know what the discharge does to fish. ACTIX says nothing. It was used with the sport fishermen to chase off sea lion while fishing continues. The lack of effect on fish may be due to the ear structure.
- 5.3. What is the device firing time? The system is flexible. It can discharge every second or longer.
- 5.4. FPOM had a concern about the quantitative result on migrating salmonids. Has ACTIX talked with NOAA Fisheries? No, but a letter was sent to Guy Norman with WDFW. **ACTION:** Gary will take information to Garth (NOAA).
- 5.5. How does this technology compare to pile driving? ACTIX is utilizing short, sonic bursts which extend 800 meters. There are no bubbles nor is it a hammering action.
- 5.6. How does it compare to dynamite? The burst is equivalent to roughly 1 gram of TNT. No bubbles and it doesn't alter the environment. This has been tested in naval base areas with no complaints about radio or radar interference.
- 5.7. Why was the 1998 test denied? No reason was given. The initial denial was due to the Humane Society actions. Public opinion was already against further testing so that may have been why.
- 5.8. The study was a joint effort between the Navy and NOAA. Fredricks requested some information about what NOAA thought about the study results. California Fish and Game was also involved with the initial study.
- 5.9. Currently the sonar system has already been developed for divers and is in use in port protection. Bettin explained that we are trying to get the sonar married up with the sonic technology.
- 5.10. There was more discussion as to the need for such technology and what role the sea lion task force might play. Stansell commented that there will always be a need for non-lethal deterrent methods for sea lions. There was general acceptance that the technology would work for sea lions, the only concern was what the impact would be on migrating salmonids and other native fishes. It was agreed that this technology be pursued and brought to the attention of the sea lion task force. **FPOM recommends a literature search on the sensitivities of salmon, sturgeon and lamprey. A task group should be formed. S. Bettin is the chairperson with Fredricks (and other appropriate NOAA rep), Stephenson, Stansell, S. Richards, R. Kruger, D. Wills, B. Hausmann, and D. Benner as group members.**

6. **SLED installation dates. (Hausmann).** Due to the fact that the SLEDs go in the bulkhead slot, they can not be installed in B-Branch until the ladder is ready to return to service. The FPP requires SLEDs to be installed by 1 February. In an effort to rent the crane only once, the Project requests permission to delay installation of SLEDs in Cascades Island and B-Branch by a few days, until B-Branch returns to service the week of 4 February. A 65 ton crane is needed for SLED install and removal on the main dam due to length needed for booming out to the slot. **FPOM says rent the crane once if the timing makes it possible.** If B-Branch cannot be returned to service by the week of 4 February, the Project will rent a crane to get the SLEDs in at Cascades Island then rent a crane later to get the SLEDs in at B-Branch.
7. **BON B2CC opening/closing date. (Hausmann).** Due to the opening and closing of the B2CC falling on a weekend or a holiday, the Project requests a reconsideration of the opening/closing dates so that the rigging crew can do the work during normal work hours. **FPOM agreed to delay opening the B2CC until 3 March. ACTION:** Hausmann will find out how much it would cost to bring in riggers on overtime to install the B2CC bulkhead on 31 August (Sunday). There was more discussion regarding the closing of the B2CC after the end of spill. BPA requested a hoist for the B2CC, SCT will discuss a hoist at the meeting next week.

8. **Avian hazing/lethal take. (Klatte).** Moved to the February agenda.
  - 8.1. BPA has maintenance issues with cormorants in the transformers.
  - 8.2. TDA/JDA Project Fisheries has expressed interest in exploring the option of avian lethal take in addition to the non-lethal hazing activities. Fredricks doesn't think taking cormorants for fish issues will be useful, but lethal take of gulls would be effective. **ACTION:** Cordie will take the lead in further pursuit of filing the application and working towards lethal take.
  
9. **JDA south end unit overhaul. (Zyndol)**
  - 9.1. JDA has fallen behind on 6yr O/H on units 1,3,4,5. Project would like to take the units out, two at a time, in July/Aug 08. Each O/H takes three weeks. FPP JDA-20 says units 1, 2, 5 should not be scheduled OOS during fish passage season. Project Fisheries recommends scheduling U1 OOS ONLY if U2 can remain in service with no 100MW soft constraint. This appears to be allowable based on FPP JDA-22 "U2 will replace U1 when not operating". If the units come out in pairs, it is recommended that U1 and U4 occur in Aug (lowest passage) and U3 and U5 occur any other time.
  - 9.2. G. Fredricks recommends looking at the unit operation at ERDC. Need to look at unit priority with the TSW operation. These test operations should get into the FOP. **FPOM recommends the Project keep five units running and take one unit out at a time starting in August.**
  
10. **JDA Unit 16 update. (Zyndol).** The unit is scheduled to service at the end of February.
  
11. **McNary fishway entrances update. (Moody).** G. Moody provided a handout on the Washington shore fish ladder repair activities. Everything is expected to be completed by 14 February.
  
12. **FPP. How shall the draft be distributed? (Boyd).** The official letter will be sent next week. No CDs or hard copies for the draft. The draft is already available on the web.
  - 12.1. How many hard copies are needed? 75 copies were printed last year at a cost of \$22/ copy. Why couldn't everyone print out their own? It was decided it would be more costly to have everyone print out their own. Boyd would appreciate it if we could reduce the number of hard copies needed. **ACTION:** Everyone will get their hard copy numbers to S. Boyd by the next FPOM meeting. NWW gives everyone in their district the entire FPP, thus they need 26 copies. BON tends to get one copy, and then photocopy the BON section for everyone on project who needs a copy.
  
13. **Water forecast (RCC).** Handouts provided by S. Boyd.
  - 13.1. Current forecasts are predicting an average water year in most areas but the upper Snake is still a little low.
  - 13.2. The next TMT meeting will have the full forecast presentation/discussion.
  
14. **Fish release site at BON.** The fish release site needs to be completed by 3 March to accommodate the proposed Spring Creek test. The contractors are currently working. The gravel and driveway portions are complete. **ACTION:** Mackey to contact E. Hall for an update. She will send information to FPOM. **ACTION:** Bettin will coordinate with Bailey to get one big trailer by 10 March from NWW.
  
15. **Meeting minutes detail. FPOM would like to see more detail and a library of the digital recordings.** The current recorder does not download to a computer. B. Klatte says he will get us one that can transfer files to the computer. Bettin offered the use of a BPA recorder as well. **ACTION:** Mackey will find a digital recorder that can transfer files to a PC for storage and future retrieval.

**16. Other.**

- 16.1. Tim Dykstra will be replacing Dave Hurson. He will co-chair FPOM starting in March.
- 16.2. Eric Volksman is the new bio at Little Goose. He has been in his position since before Thanksgiving.
- 16.3. Lower Monumental want to change smolt monitoring to look at avian predation. This change from three to five days a week will require a research take permit. More conversation occurred between Hevlin, Moody and Bailey after the FPOM meeting adjourned.
- 16.4. Next meeting is 14 February at NOAA Fisheries.

**17. TIES meeting following FPOM in the 8<sup>th</sup> floor Ops conference room (follow Bern).**

- 17.1. It was decided any movement forward will depend on results of the BGS study and the ability to get FGE for each unit or at least the north end of the powerhouse. The study will be discussed more at the SRWG on 16 Jan. **ACTION:** D. Schwartz will get a fact sheet together including FGE w/TIES in. He will make sure the study gets specific FGE for units 15-18. The fact sheet will include CFD models as well.

**18. Finalized results from this meeting.**

- 18.1. **FPOM says it would be best to find a place to store grates away from the fishways at TDA.**
- 18.2. S. Bettin will chair a sea lion task group consisting of Fredricks (and other appropriate NOAA rep), Stephenson, Stansell, S. Richards, R. Kruger, D. Wills, B. Hausmann, and D. Benner
- 18.3. Main dam SLED installation delay until the first week in February. **FPOM says rent the 65 ton crane once if the timing makes it possible.**
- 18.4. **FPOM agreed to delay opening the B2CC until 3 March.**
- 18.5. **FPOM recommends JDA take units 1, 3, 4, 5 out at a time for a six year overhaul starting in August.**

**19. The following information was distributed, or emailed prior to, the FPOM meeting:**

- 19.1. Agenda, Fish Passage O&M Coordination Team. Provided by B. Klatte.
- 19.2. [FPOM Calendar](#). Emailed prior to the meeting.

# January 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Happy New Year	2 NWW adult fish facility begins	3	4	5
6	7	8	9BON entrance lamprey mtg.	10 FPOM Meeting TIES meeting after FPOM	11 FFDRWG NWP	12
13	14	15	16	17	18	19
20	21 MLK OBSERVED	22	23	24 FFDRWG- NWW  Lamprey meeting at Bonneville.	25 FPP Review Meeting- TDA	26
27	28	29	30	31		

# February 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 SLEDS installed	2
3	4 Main dam SLED installation begins	5	6	7	8 Revised Draft FPP Due to NWD	9
10	11	12 TDAN dewater  BON ROV inspect.	13 TDAN dewater  BON U11 ROV inspect.	14 FPOM Meeting- NOAA Fisheries	15	16
17	18 PRESIDENT'S DAY	19 BON MD erosion FFDRWG JDAN dewater	20 JDAN dewater	21	22	23
24	25	26	27	28 FFDRWG- NWP TDAN FFDRWG	29 FPP Issued  Winter maint. ends	