AGENDA (Draft)

Fish Passage O&M Coordination (FPOM) Team
NOAA Fisheries Office 1201 NE Lloyd Blvd (Lloyd Center MAX stop)
St. Helens Room (10TH Floor)- check in on the 11th floor
November 13, 2007 (0930-1300)
Call in # 503-808-5199**, passcode** 2580

1. Introductions

2. Review/Approve Agenda and Minutes (B. Klatte)

3. Action Items (B. Klatte)

1. J. Adams requested some discussion on the Water Management Plan so altered operations for navigation can occur quickly. **ACTION:** J. Adams will develop FPP language.
2. Dam Angling and Hazing program plans. **ACTION:** D. Wills will send an example of a lethal take permit application to Klatte, Cordie and Mackey.
3. Draft tube grizzly drains. **ACTION:** BON and TDA to work on a design for new grizzly grates.
4. Switch Gate Seal at BON: **ACTION**: TDA and BON will collaborate on new, possibly air bladder, seals. B. Hausmann needs more information regarding the continuous flushing flow request from NOAA Fisheries.
5. The Dalles Stub weir removal. **ACTION:** Find out why the stub weirs are there. No one seems to know why, though it is speculated they are there to make sure the bulkhead sill stays clear.

6. BON PH2 VBS differential information. **ACTION:** D. Schwartz will send technical data including velocity profile criteria to FPOM. **ACTION:** D. Schwartz will pull together the cleaning criteria information for FPOM. ***STATUS:*** *To be discussed under agenda item #6.*

7. JDA Floating Orifice closure. **ACTION:** B. Cordie to develop language, for inclusion in the FPP, which outlines when and how the FOGs should be closed. **STATUS:** B. Cordie developed a test plan for Agency review. **ACTION:** FPOM will review the procedures and provide comment by the November FPOM meeting. ***STATUS:*** *To be discussed under agenda item #12.*

8. The use of galvanized steel in fishways. **ACTION:** Corps to find the leaching rate of zinc. ***STATUS:*** *To be discussed under agenda item #13.* **ACTION:** G. Fredricks also indicated he send his memo to B. Klatte and T. Mackey for FPOM distribution. ***STATUS:*** *G. Fredricks sent his memo on 11 October.*

9. Additional spill for fish passage. **ACTION:** B. Hevlin to draft language for the FPP. ***STATUS:*** *B. Hevlin sent out draft language. To be discussed under agenda item #14.*

10. Bonneville PH2 TIES. S. Bettin said SCT is looking at new TIES. G. Fredricks said to look at permanent TIES. He suggested looking at old TIES studies and coordinate an ad-hoc meeting. **ACTION:** T. Mackey to find out TIES life expectancy. S. Bettin will get this as an SCT line item. ***STATUS:*** *TIES life expectancy is 20-30 years.*
11. 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:*** *Mackey talked with Lorz about a meeting. Lorz indicated he would meet with other FPAC members first to discuss smolt monitoring needs. Mackey is waiting to hear back.*

4. Updates. (B. Klatte)

1. Pinnipeds return to Bonneville. Harbor seal, California and Stellar sea lions seen.
2. New Bonneville winter maintenance schedule will be emailed with the minutes. BI dewatering delayed two weeks.
3. BON FOG sea lion bars- meeting scheduled for 19 November to discuss mods.

5. Adult fish counting services. (G. Moody)

6. BON spillway erosion repairs and survival information. (D. Schwartz)

7. BON PH2 VBS cleaning criteria discussion. (D. Schwartz)

8. TIE crane. (B. Klatte)

9. BPA pikeminnow program. (J. Skidmore)

10. TDA/JDA dam angling and gull hazing. (B. Cordie)

11. TDA stub weir removal. (B. Cordie)

12. TDA fish lock test. (B. Cordie)

13. JDA FOG testing procedure. Comments or concerns? (B. Cordie)

14. Use of galvanized steel in the fishways. Leaching rate of zinc. Corps recommendations. (D. Clugston is unavailable. His comments are below). A fact sheet is attached to the agenda.

1. The recommendation is to not use galvanized in-water. Engineers are looking at new grate design and materials. They are evaluating fiberglass, stainless steel, and aluminum. The final product needs to meet loading requirements and be lamprey/salmon friendly.
2. If TDA can hold off replacing grates, that is the preferred option. If there are critical areas, those grates should be replaced this winter.
3. Unused grating might be considered for use in non-submerged walkways. Is there any concern about galvanized steel being used in that manner?

15. FPP Comments

16. FPOM Calendar

17. River Flow Forecast (RCC)

18. Other

19. 1300-1600 Shad task group meeting. **Call in #** 503-808-5199, **passcode** 2580

GALVANIZATION and FISH PASSAGE

Literature Information

- Rainbow trout avoidance limit 0.0001mg/l Fish do eventually acclimate and lose avoidance behavior. (Acta Zoologica Lituanica Hydrobologia ’99 Vol 9).
- Leaching rate 5mg/cm2/day. (WES tech note ZMR-2-15, Crump) Zebra mussel anti-fouling.
- Galvanized grating likely results in concentration above rainbow trout avoidance threshold (Clugston)
- The Dalles new grating has approx 2.7mm galvanize coating (per contractor spec)
- 3mm coating provides approx 20yr corrosion protection (www.gtiengr.com)
- Zinc concentration in sea water = 0.6ppb (www.lenntech.com)
- Zinc concentration in rivers = 5-10ppb (www.lenntech.com)
- Zinc solubility depends on pH. More soluble with increased acidity (www.lenntech.com)

Questions that need to be answered

- What do salmon and steelhead avoid?
- What is Columbia river pH?
- What is the concentration in a flowing fish ladder with new grating?
- Does aging the grating on the deck reduce leaching rate when installed?
- What is background concentration in the river?
- What is the acclimation rate?
- What are alternatives to galvanized grating?
- Do alternatives leach detrimental compounds? (fiberglass resins, aluminum)
- What is the cost difference for alternatives?
- Is there a simple test (lab or field) we can conduct to determine if we have a galvanization avoidance problem?
- Two sections of galvanized grating were installed last winter. Can we determine avoidance from UofI radiotelemetry?
- If galvanization prevents zebra mussel colonization, should we take this into account?
- Can we conduct a water quality test immediately downstream of installed galvanized grating to confirm concentration levels?