CENWP-OD 19 October 2016

MEMORANDUM FOR THE RECORD

Subject: DRAFT minutes for the 19 October 2016 HMT meeting.

The meeting was held at the ODFW Adair Office in the large conference room. In attendance:

Last	First	Agency	Email
Couture	Ryan	ODFW	ryan.b.Couture@state.or.us
Dalgliesh	Jane	NWP	Jane.M.Dalgliesh@usace.army.mil
Garletts	Doug	NWP-OD-V	Douglas.F.Garletts@usace.army.mil
Graham-Hudson	Bernadette	ODFW	Bernadette.n.graham-hudson@state.or.us
Grenbemer	Greg	ODFW	Greg.A.Grenbemer@state.or.us
Helms	Chad	NWP-OD-V	Chad.K.Helms@usace.army.mil
Kovalchuk	Erin	NWP-OD-TF	Erin.H.Kovalchuk@usace.army.mil
Kremers	Kurt	ODFW	kurt.kremers@state.or.us
Sharpe	Cameron	ODFW	Cameron.sharpe@oregonstate.edu
Traylor	Andrew	NWP-OD-TF	Andrew.W.Traylor@usace.army.mil

On the phone: Grenbemer, Graham-Hudson and Kremers.

1. **Final results from this meeting.**
   1.1. August minutes were approved.

2. The following documents were provided or discussed. Documents may be found at: http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/Willamette_Coordination/
   2.1. 161019 Agenda (Traylor)

3. **Action Items**
   3.1. [Oct 16] Marion Forks/Minto – ACTION: Grenbemer will send out a summary of the power outage. *STATUS: Walker sent out an MFR.*
   3.2. [Oct 16] Marion Forks/Minto – ACTION: Traylor will look into a remedy for hoist breaker.
   3.3. [Oct 16] Detroit – ACTION: Traylor will follow up on any further actions for the Detroit project to take on the power problems.
   3.4. [Oct 16] Biosecurity for Marion Forks - ACTION: Grenbemer/Couture will get a cost estimate for biosecurity enhancements to Marion Forks.
   3.5. [August 17] Funding for Cougar 2016 Genetic Samples. Traylor will follow up with Rich Piaskowski on funding for analysis of 2016 genetic samples from adults returning to Cougar. ***Status: Complete***
   3.6. [August 17] Foster Ladder Attraction. Couture will follow up with Brett Boyd. Sharpe will follow up with Chris Caudill to daylight any potential conflicts with current monitoring and studies being conducted by the University of Idaho. ***Status: This topic is discussed below.***
4. **Updates.**
   4.1. Marion Forks/Minto (Grenbemer) – There was no major damage from storm and the weir was pulled in advance. The pathology report cited very few cases of BKD indicating that the early medicated treatment has worked. Smolts will be transferred down to Minto on November 7. At Minto, pump 4 returned to service after swapping the communication card from pump 1. All CT

cards for the VFDs were replaced this week after discovering that they had been recalled. It was thought that the VFD had blown and a contract was awarded on September 30 to purchase two more VFDS. Pump 4 is using the old VFD with the new communication and CT cards. The two new VFDs will be spares. Pump 1 should return to service this week and the bearing will be replaced on pumps 2 and 3. All 5 pumps should be ready for fish on November 7th. There have been several brown and black outages due to high winds during the storm. Minto always had at least one pump running and could maintain about 8.5 CFS, enough to keep half the ladder running. All the issues during the storm were pre-CT card exchanged so Grenbemer is not expecting further problems. The project would like to extend JFR pipe before juveniles come especially since it is not in use right now. The engineer has already sent Traylor plans but Traylor needs to check with Mackey, Peterson and Willamette Valley engineers first. Couture stressed that the work window is small right now and otherwise the work will not get done until after the smolts are released in April. Grenbemer estimated that the work would take less than a day if they use prefab supports, forms and the extension on the pipe should be standard as well. A contractor would do the installation. Any fall protection requirements would be in the contract. Couture asked if an MFR should be written for Saturday's pump problems and power outage. Traylor compared the situation to the protocol used on the Columbia River dams. The ladder was out of criteria but there was no loss of fish. The Columbia River dam projects would cite this circumstances in their weekly report not an MFR. The maintenance work was scheduled during the time that there was a minimal risk to fish but the faults of the drives of the other pumps were unexpected.[RC1] ACTION: Grenbemer will send out a summary of the power outage. Engineers have looked into moving the hoist breaker on the crane but it is more complicated than first thought. The next step is unknown. ACTION: Traylor will to look into moving breaker on crane. Foster has a similar situation. The breaker is on the hoist itself and not in a fixed location. On the issue when the generator did not kick on during a power outage, Tim Ernster had sent out an email outlining the details of the situation. It was explained that everything functioned as it was supposed to so there isn't an easy solution. There was a breaker sensitivity that was set too high and a power analyzer has been installed. [RC2] ACTION: Traylor will follow up on any further actions for the Detroit project to take on the generator problem. Traylor suggested doing weekly and daily inspection reporting to document issues that occur.

4.2. South Santiam/Foster (Boyd) – Spawning wrapped up a few weeks ago and low occurrences of BKD. Due to handling problems because of the bulkhead and the fishlock, there was low fecundity and eggs were being dropped all over the facility. The goal for egg take is still on track for the South Santiam, but egg survival was low as well. The project is trying to repair the fishlock and bulkhead so that it is in useable condition by December. The engineer is working on a redesign of the lift systems for a permanent fix. After a design and cost estimate are made then funding sources will be sought. The J-seal on the bulkhead has gone bad causing torqueing problems. The lift can't pull out the bulkhead once it has twisted. The temporary fix is to remove the J-seal and hope that water can help seal around the bulkhead. A temporary electrical hoist is being used for lifting. Outplanting above Foster went fine but low numbers. Attraction was an issue – fish were present that were not collected. Gordon Road site is fine but the River Bend outplanting site has had major erosion. Dalgliesh will help with this issue.

4.3. McKenzie (Kremers) – There were two minor power outages during the storm and high water but no problems to report. Spawning finished and the trap was closed on Oct 7th ended fish with very few cases of BKD. There were 475 fish were outplanted above Cougar at Frissell Bridge; 324 were females. Surveys immediately followed. Crews did not see any mortalities but lots of redds in the tributaries. A new chiller will be installed this week and then otolith marking will start.

4.4. Cougar Trap (Helms) – The facility was shut down on October 13th. A total of 373 fish returned - 75 ad clipped, 298 non-clipped. The 298 were recycled downstream and 174 came back a second time. Helms will update the floy tag data and send out soon. There were also

seven bull trout and four summer steelhead. For maintenance issues, one pump is being rebuilt and a spare pump is on order.

4.5. Fall Creek (Garletts) – Operations will be extended till the end of month. Flows are double the typical CFS at about 400. Many summer steelhead have returned and the first smallmouth bass captured at the facility. There were 424 non-marked Chinook, all of which were hauled, plus 88 ad-clipped. No lamprey due to high flows and the turbulence caused by the RO. The lamprey ramp was blown out by the high flows. Any new traps or ramps need to be either in the ladder or where the flows are gentler. There were 129 summer steelhead and 8 winter steelhead. The seven year average for hauling is 407 so this year is above average. There were more naturally produced jacks this year and some "zombie" Chinook non-marked, mostly males returning to the facility in October. The new facility will have adult and juvenile holding ponds but the completion date is tentatively scheduled for 2018. The contract has been awarded again. The new water valves have been replaced.

4.6. Willamette/Dexter (Peck) – Spawning is finished with low occurrence rates of BKD. There was higher pre-spawn mortality coupled with low fecundity so it is projected that there will be a significant shortage of eggs. Couture stresses that brood stock holding is still an issue and a holding pond would help alleviate many of the issues. Traylor has talked with Mackey about funding and suggested tying the intake and pond together into one contract. This will be looked at in the future. Final outplanting numbers for north fork and middle fork were 675 fish. This year, Hills Creek targeted lower number outplanting numbers than in years past. A summary of all outplanting numbers will be available for the next meeting.

4.7. Leaburg (Withalm) – The facility captured 240 summer steelhead after the rain events of the last couple of weeks for a total of 441. In a USACE federal safety inspection, Leaburg had 5 stars with only minor infractions. At McKenzie, the inspection found high CO2 levels in the breakroom. USACE will fund the improvements for more venting and fall protection safety issues. Starting January 1, OSHA has some changes to the fall protection requirements that will need to be addressed at the hatcheries. Guidance on safety regulations is based on OR OSHA.

4.8. Fish counts at Bennett and Leaburg (Sharpe/Friesen) - Nothing unusual to report. For the last few years, some strange chinook come back in October that appear to be late spawning spring chinook and are not included in the surveys. On the Rogue, they are called spralls. Sharpe would like to see if they are back again this year and get some DNA analysis. The generator at Bennet is problematic and this is a critical piece of equipment that runs the PIT tag detectors and video monitoring. The estimated cost for replacement is $8-10k. At Leaburg, there were 1600 unclipped fish but 38% pHOS - much higher than anticipated. The late ladder operation at McKenzie likely contributes to this. The Leaburg barrier only works if there is a place that the hatchery fish can be taken out of the system. The ladder started running on May 10 but despite plenty of flow, no fish were entering the ladder until the juveniles were returned to McKenzie from Leaburg. Several other hatcheries have noticed this relationship between the presence of juveniles and the cue for adult fish to move. Due to concerns that NMFS had with handling wild fish in the trap, the current protocol is to stop operations if the majority of the fish are wild. To improve the number of hatchery fish caught, ODFW will rewrite the protocol and see if NMFS will approve. The Leaburg Dam roll gates are fixed right now but there are always issues with them.

5. Outplanting in the North Santiam and biosecurity for Marion Forks- The project has been considering outplanting winter steelhead but there are concerns about putting the spring Chinook at Marion Forks at risk due to pathogens. Traylor needs to follow up with Craig Banner who looked at IHN prevalence at Minto. Comparing other hatcheries that have similar situations will help evaluate the risks to outplanting above Marion Forks. At Minto, infected fish above the intake have occasionally caused an IHN increase. Foster has a giant reservoir and should minimize the risk. The permanent weir

structure, water treatment structure and an electric weir on Marion Creek has not been looked into beyond HMT and WFPOM. Sharpe asked if these topics should be elevated. Traylor said he prefers to invest in UV filtration and enhanced biosecurity versus creating a barrier. Well water may be a feasible alternative. Trying to look at long term goals for the Willamette, hatcheries might be making less of a contribution and wild stocks make up more of the run. Marion Forks Hatchery could be one of the more useful and viable hatcheries in later years. Leaburg recently added a recirculation and UV filter for about $1.2 million. ACTION: Grenbemer will get a cost estimate for biosecurity enhancements to Marion Forks. Traylor needs two years to get a specific line item into the budget. Sharpe said that he wants to put steelhead out this year. Traylor asked if there is the possibility of using naïve fish that would not be attracted to the hatchery. Wild Steelhead reared at the OHRC and released at Dry Creek might work. Any juvenile released in 2017 would not come back until 2019. It is conceivable to release in the Breitenbush and not Dry Creek (North Santiam). There is an important paired release study ongoing that might determine the location of the release. Sharpe will follow up on releasing at Breitenbush. Adults released into the North Fork of Breitenbush will have less risk than the Dry Creek site[RC3]. Late outplanting usually means spawning near the release location even though there is more pre-spawn mortality. Creating artificial redds and egg planting is also an option. There is a contractor that has an egg planting contraption for purchase. The artificial redds would lessens competition with bull trout and would have less fallback that contributes to pHOS. The artificial redds are in lieu of outplanting 60 pairs of adult fish. [RC4]

6. Foster ladder attraction. Lessons learned from 2016- To figure out the best flows for attraction water, Caudill and Brett Boyd tried adjusting the entrance gate elevations. The report has not been sent out but the results were inconclusive so far. One thousand redds were constructed below Foster this year. The return numbers were low but instead of entering the ladder, the fish appeared to have spawned down below. The redd numbers were so high that fish were even spawning in 6-8 inches of water, in angular rocks, and on top of each other. To help fish find the ladder, Sharpe likes the idea of olfactory signal from a juvenile release to help. Fish are consistently moving between 10pm-1 am and if they add water to the ladder at that point, it may trigger fish to enter the ladder. Preliminary video has shown that fish appear to be entering the ladder but backing out. One theory was that there was a temperature differential between the pre-sort and the auxiliary water. If fish are entering the ladder then the temperature may not the problem. The new ladder supply water intake was much higher than the old water intake meaning that warmer water was entering the system. A defective valve didn't allow the deeper intake to be used. After it was fixed, there still was no noticeable change in ladder attraction. Water chemistry will be analyzed this year by Caudill's group. It is unknown if there is a difference between summer steelhead and spring Chinook ladder attraction. The answer might be coming after the spawning survey this winter. In order to move forward with ladder attraction improvements, we need the report from Caudill to find out details about ladder entrance rejection and see if any of their entrance gate tests worked. There might be ladder entrance rejection rate differences between hatchery and natural origin fish that could explain why Foster has a problem that other facilities/hatcheries do not. [RC5]

[RC6]