MEMORANDUM FOR THE RECORD

SUBJECT: *15JDA01 MFR* – Three Adult Steelhead Mortalities during Dewatering of JDA South Fishway, SE Entrance Diffuser Area.

- **23 January 2015 -** JDA-S Collection Channel was successfully dewatered and inspected by JDA Fisheries crew.
- **13 February 2015 -** The fishway had to be watered up for the spare SE 1 weir installation (there is no bulkhead at that entrance and the closed weir serves that function).
- 17 February 2015 The Collection Channel had to be dewatered again for additional maintenance inspections. There were no stranded fish found by Fisheries in the collection channel. The SE Entrance Diffuser area did not drain completely before COB on that day. Fisheries contacted Operations to close the drain and postpone draining until the following morning.
- **18 February 2015 -** Operations restarted draining around 0530, prior to Fisheries' arrival at the Project. The area was dry before Fisheries was on-site.
 - **A.** Species 3 Adult Steelhead
 - **B.** Origin 2 unclipped, 1 clipped
 - C. Length 2 Steelhead at 26" and 1 at 23"
 - **D.** Marks and tags 2 Clipped Adipose Fins
 - E. Marks and Injuries found on carcass none
 - **F.** Cause and Time of Death Based on previous experience with the drain for SE-1, Operators opened the drain valve before Fisheries personnel were on-site. In the past, the area had drained very slowly so there was the belief that draining would take at least a couple of hours. These fish died due to lack of water. The SE1 diffuser area was dry before Fisheries could be on-site and ready for fish salvage activities. Fisheries personnel were on-site by 0700 on 18 February.
 - **G. Future and Preventative Measures** JDA Policy requires that Fisheries personnel is at work/ available to monitor water levels before the draining of fishways channels can commence, but occasionally, and due to very slow draining rates, Operations starts the draining process a few hours before 0700 hrs to save time. To prevent this from occurring again, Fisheries has updated dewatering SOPs to better reflect the requirement to have Fisheries personnel on-site and ready to salvage fish prior to dewatering fishways. A copy of the updated SOP is attached to this MOC. In addition, JDA is exploring options of having Fisheries take clearances for fish related structures. This would provide an additional layer of protection so areas may not be accidentally dewatered without Fisheries' knowledge. The JDA OPM has also had conversations with Project personnel stressing the importance of following dewatering protocols and not putting the Project in the position of drying up fishways without Fisheries personnel on-site to salvage fish. JDA recognizes the seriousness of this incident and acknowledges that is likely could have been avoided. The Project is committed to doing all they can to make sure mortalities of this nature are not repeated in the future.



Sincerely, JDA Fisheries

Comments:

12 March 2015 FPOM meeting.

15JDA01 MFR SE-1 fish mortalities. Fredricks said he is looking for more assurances that there will not be fish mortalities during fishway dewaterings. Fredricks asked about Project Fisheries holding clearances for all fishway dewaterings. Setter said NWW is working on this issue at their Projects.

JDA has updated their SOP to have Project Fisheries as the clearance holders. Fredricks stressed that these mortalities are not part of the BiOp. Cordie noted that dewatering sometimes has to be started before Fisheries is on-site or else dewatering would not be completed in a day. Fredricks said that is fine when large volumes of water need to be moved but if it is expected to be dry in a couple of hours then Fisheries needs to be on-site and ready. Grosvenor said JDA Fisheries has been working to get more control of the clearance process during dewatering activities. In this instance, the new Weir 1 bulkhead does not leak like the old one and the section dewatered much quicker than anticipated. In the future, Fisheries will be onsite and watching during dewaterings of this nature. Fredricks would like to see this issue addressed system-wide and not just at each project as fish mortality incidents occurs. ACTION: Project Biologists will send their dewatering SOPs to FPOM for review.