

MEMORANDUM FOR THE RECORD - 14 LWG 21 Early shut down of juvenile fish bypass for freeze protection.

SUBJECT: MFR Early shut down of juvenile fish bypass for freeze protection, November 10 – 12, 2014.

Description of the problem – The Lower Granite staff is extremely concerned about the extreme cold weather front moving into the area. Temperatures are expected to drop into the "teens" with snow forecasted Wednesday through Friday. The extended forecast calls for continued low temperatures until at least Sunday, November 16. The Lower Granite juvenile fish facility is especially vulnerable to freeze damage because it is in secondary bypass. Continued operation under such weather conditions may result in serious damage to water supply pipes, flush lines, drains and other components necessary for proper facility functions.

Action being taken – The project staff plans to pull the ESBSs from 1 to 2 units today, with the rest of the screens to be pulled by mid-day Wednesday, November 12. The screens in units 1 and 5 are already raised as these units are currently out of service for maintenance. The juvenile bypass will be unwatered by the close of business on Wednesday (November 12). No screens will be pulled on Tuesday, since November 11 is a federal holiday. Only screened turbine units will be operated until the bypass system is removed from service.

Expected impacts on fish passage – Because of the current configuration of the Lower Granite juvenile bypass system, the JFF cannot be operated in primary bypass without risking fish loss being impinged on the separator incline screen causing mortalities. Secondary bypass operations involve an extensive amount/distance of piping, valves and gates, much of which cannot be protected from freezing conditions. Failure of any of these systems while in secondary bypass could result in mortalities.

Comments from agencies

-----Original Message-----

From: Bailey, John C NWW

Sent: Monday, November 10, 2014 10:51 AM

To: 'Trevor Conder'; 'gary.fredricks@noaa.gov'; 'Bill Hevlin'

Cc: Setter, Ann L NWW; Moody, Gregory P NWW; Brooks, Francis C NWW

Subject: Lower Granite JFF Cold Weather Shutdown

Importance: High

Bill, Trevor & Gary:

The Lower Granite staff is extremely concerned about the extreme cold weather front moving into the area. Temperatures are expected to drop into the "teens" with snow forecasted Wednesday through Friday. The extended forecast calls for continued low temperatures until at least Sunday. Lower Granite is especially vulnerable to freeze damage because it is in secondary bypass. The project plans to pull screens from 1 to 2 units today, with the rest of the screens to be pulled by Wednesday around noon or so. The juvenile bypass

will be unwatered by the close of business on Wednesday. No screen pulling will take place on Tuesday since November 11 is a federal holiday. During that time (on Tuesday), the bypass and 2 screened units will remain in service. I will be sending a general FPOM notice out today.

-----Original Message-----

From: Trevor Conder - NOAA Federal [mailto:trevor.conder@noaa.gov]

Sent: Monday, November 10, 2014 11:47 AM

To: Bailey, John C NWW

Cc: gary.fredricks@noaa.gov; Bill Hevlin; Setter, Ann L NWW; Moody, Gregory P NWW; Brooks, Francis C NWW

Subject: [EXTERNAL] Re: Lower Granite JFF Cold Weather Shutdown

John,

I'm not sure if Bill will be in today, but providing he has no last minute concerns with this, we can support taking the screens out early to avoid the impacts that would likely occur from an iced up bypass system.

Final results

Please email or call with questions or concerns.

Thank you,

Sincerely,

Francis "Ches" Brooks

Fisheries Biologist

Lower Granite Dam

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