

OFFICIAL COORDINATION REQUEST FOR NON-ROUTINE OPERATIONS AND MAINTENANCE

COORDINATION TITLE- 17 LMN 07 MOC Unit 6 Digital Governor Commissioning

COORDINATION DATE- 8/1/17

PROJECT- Lower Monumental Dam

RESPONSE DATE- 8/11/17

1. Description of the problem

Digital governor installation on Lower Monumental unit 6 is currently underway. The contractor is expecting to start commissioning the unit 14 August, 2017. This work was included in section 7.1.6 of Appendix A of the 2017 Fish Passage Plan.

Commissioning is required to validate proper orientation. This will require running unit 6 out of priority and also outside of the 1% peak efficiency range. The commissioning may also decrease spill when necessary to run the unit at the higher end as part of the process. The process is expected to take four (4) days to complete.

Below is section 7.1.6 out of Appendix A, 2017 Fish Passage Plan.

7.1.6 *April 2017–March 2018: Turbine Unit Digital Governor Installation. This contract is to replace the aging mechanical governors with new digital governors on all six turbine units. The new governors will make the units more reliable and efficient, with less required maintenance.*

2. Type of outage required – No specific outage required.

3. Impact on facility operation – Test operations will occur outside peak 1% operating efficiency for unit 6.

4. Impact on unit priority – This testing will reduce the amount of available water running through units 2 and 3 (priority units) and will result in running unit 6 out of unit priority. Unit 6 is currently the lowest priority unit for supporting adult passage at Lower Monumental

5. Impact on spill – During normal fish passage season summer operations, Lower Monumental is expected to spill a constant 17k cfs per Appendix E of the Fish Passage Plan. The amount of spill may be decreased at times during commissioning dependent on incoming river flows.

6. Dates of impacts/repairs – Unit 6 commissioning is scheduled to begin 14 August, 2017 and is expected to last 4 days.

7. Analysis of potential impacts to fish

Upstream adult passage and juvenile outmigration numbers are historically low during this time period. On 14 August, the 10 year average of adult fish passing Lower Monumental Dam daily is 77 Chinook salmon and 557 steelhead (Figure 1). Juvenile outmigration at this time will consist mainly of subyearling Chinook salmon. The 10 year average for 14 August is 668 smolts per day passing Lower Monumental. Figure 2 shows the daily subyearling chinook smolt index for Lower Monumental over the last 10 years.

Adult steelhead passage numbers in 2017 have been significantly lower than the 10 year average. Daily adult Chinook passage numbers have also been lower this season than the 10 year average. Adults attempting passage during the commissioning could experience delays due to a change in turbine unit priority, however, there are additional fish ladder entrances located adjacent to unit 6 in the south powerhouse area as well as adjacent to spill on the south shore.

Juvenile salmonids outmigrating during this time may be exposed to passage through a turbine that is being operated outside of 1% peak efficiency. However, the subyearling Chinook salmon numbers continue to decrease daily and will be very low during this commissioning.

8. Expected Impact Analysis

Expected impacts on juvenile and adult passage are low during this period of commissioning. Both adult and juvenile passage numbers are historically very low during this time period.

9. Comments from agencies

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

From: Bettin, Scott W (BPA) - EWP-4

[mailto:swbettin@bpa.gov]

Sent: Friday, August 04, 2017 6:55 AM

To: Hockersmith, Eric E CIV USARMY CENWW (US)

<Eric.E.Hockersmith@usace.army.mil>

Subject: [Non-DoD Source] Fwd: [EXTERNAL] Official
Coordination 17 LMN 07 MOC

The feedback I received from schedule planning below. Is testing going to occur on all hours or just during the day? There isn't enough water to run both units and spill the full amount. Is there a minimum spill level or do you want them to go to zero spill or shutdown unit 3? Is there a schedule for testing that might tell us what the discharge will be per hour?

Sent from my Verizon 4G LTE smartphone

----- Original message -----

From: "Bartlett, Kristine L (BPA) - PGSP-5"
<klbartlett@bpa.gov>
Date: 8/3/17 2:50 PM (GMT-06:00)
To: "Bettin, Scott W (BPA) - EWP-4" <swbettin@bpa.gov>
Cc: "Koski, Paul T (BPA) - PGSP-5" <ptkoski@bpa.gov>,
"Mosier, Shane W (BPA) - PGSP-5" <swmosier@bpa.gov>,
"McCoskery, John W (BPA) - PGSP-5" <jwmccoskery@bpa.gov>
Subject: FW: [EXTERNAL] Official Coordination 17 LMN 07 MOC

Scott, how is this going to work? There were not a lot of details in the attached document. Flows are forecasted to be around 30 kcfs so there isn't enough water to run the priority unit 3, spill the 17 kcfs and test unit 6. Are they going to turn off unit 3 and run unit 6 outside of priority and cut spill if necessary - the document mentions reducing the amount of available water running through unit 2 and 3 (unit 2 is no longer available as it was forced oos yesterday through Jan 2018) but doesn't mention shutting the priority unit(s) off completely. There is language in the FOP about testing units but it states that the testing "may consist of running the unit for up to a cumulative time of 30 minutes." This document indicates the testing will go on for four days. Given the low flow and limited flexibility in the forebay they are going to need to coordinate closely with the duty scheduler. Are we going to get a teletype?

Shane and John, I have included you on this email since Paul and I are out next week and it looks like this is scheduled to start on the 14th. We will need to figure out how this is going to work and probably get a teletype.

10. Final coordination results

Approved at August 10, 2017 FPOM. Project is coordinated directly with BPA to address their concerns.

11. After Action update

Figure 1. 10 year average of adult Chinook and steelhead passage.

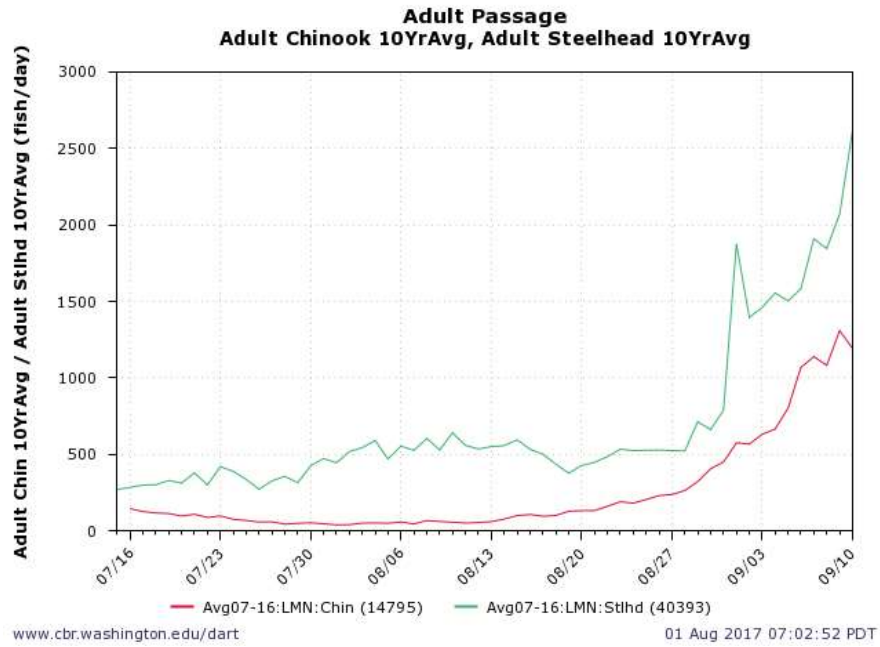
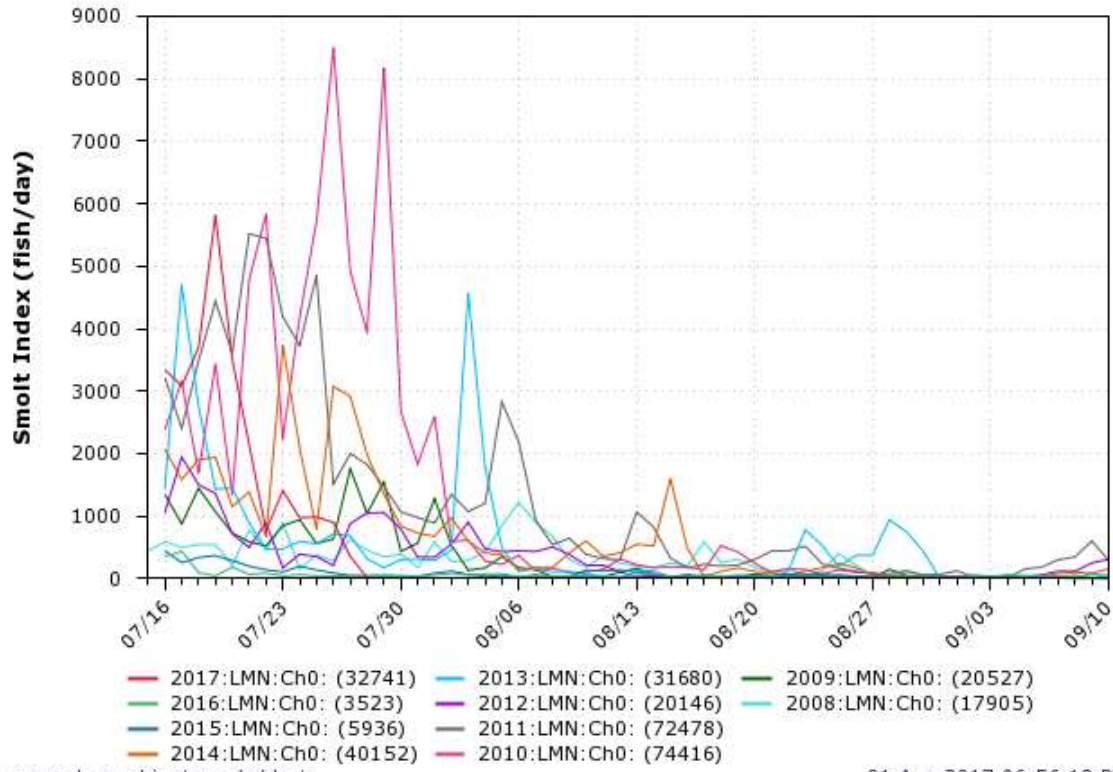


Figure 2. Smolt index for affected time period over last 10 years.

Smolt Index



Please email or call with questions or concerns.
Thank you,

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