

**OFFICIAL COORDINATION REQUEST FOR
NON-ROUTINE OPERATIONS AND MAINTENANCE**

COORDINATION TITLE- 20 LMN 02 - Unit Priority Change after Return of Unit 2

COORDINATION DATE- 6 May 2020

PROJECT- Lower Monumental Dam

RESPONSE DATE- 14 May 2020

Description of the problem

The current unit priority for Lower Monumental in the FPP is listed below:

Season	Unit Priority Order
March 1 – November 30 Fish Passage Season	<p align="center"><u>DEFAULT</u> = 1, 2, 3, 4, 5, 6</p> <p align="center"><u>MODIFIED ORDER for Unit 2 w/ Fixed-Blades*</u></p> <p align="center">Start-up (U1 available): 1, 3, 4, 5, 6, 2*</p> <p align="center">Start-up (U1 not available): 2*, 3, 4, 5, 6</p> <p align="center">Shutdown: 6, 5, 4, 3, 2*, 1</p>
December 1 – End of February Winter Maintenance Period	Any Order

*Unit 2 has hydraulically locked blades and is operated in the priority order to minimize starts/stops. When Unit 1 is unavailable, Unit 2 will be first priority for fish passage. When the blade seals are replaced, Unit 2 will resume operating in its default order.

At Lower Monumental, Unit 2 is still out of service for draft tube liner repair and blade seals and is not expected to return to service before summer of 2020. Unit 2 will return as Kaplan unit. Units 4 and 5 were forced out of service last year and returned December 31 and 23, respectively, as fixed blade units. According to the FPP units 4 and 5 are higher in priority than unit 6. However, decreasing the amount of times Units 4 and 5 are started and stopped is necessary to protect the temporary repairs. The project is proposing to move Unit 6 ahead of Units 4 and 5 in unit priority. See recommended changes in proposed table below.

Season	Unit Priority Order
March 1 – November 30 Fish Passage Season	<p align="center"><u>DEFAULT</u> = 1, 2*, 3, 4, 5, 6</p> <p align="center"><u>MODIFIED ORDER for Units 4 and 5 w/ Fixed-Blades*</u></p> <p align="center">Start-up (U2 unavailable): 1, 3, 6, 4, 5</p> <p align="center">Start-up (U2 available): 1, 2, 3, 6, 4, 5</p> <p align="center">Shutdown: 5, 4, 6, 3, 2*, 1</p>
December 1 – End of February Winter Maintenance Period	Any Order

*Units 4 and 5 have hydraulically locked blades and are operated in the priority order to minimize starts/stops. When Unit 2 returns, it will return as a Kaplan and be the second priority unit for fish passage.

Type of outage required

Impact on facility operation/ Impact on unit priority

Unit priority will be slightly different, making Unit 6 third in priority without Unit 2 and fourth in priority when Unit 2 returns to service.

Impact on forebay/tailwater operation

N/A

Impact on spill

N/A

Dates of impacts/repairs

Impacts would last from now until the end of Adult Passage season on 30 November, 2020

Analysis of potential impacts to fish

Summary statement - expected impacts on:

Downstream migrants

This change is expected to have very little impact on juvenile salmonids as the turbines will remain operating within 1% peak efficiency.

Upstream migrants (including Bull Trout)

This change is expected to have very little impact on adult salmonids as Unit 1 is still being used as first priority unit. The second priority unit is the next available unit from the north side, Unit 3. When Unit 2 returns to service, the three most northern units will be highest priority as the default order suggests.

Lamprey

Comments from agencies

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

From: Tom Lorz [mailto:lorz@critfc.org]

Sent: Wednesday, May 06, 2020 10:22 AM

To: Peery, Christopher A CIV USARMY CENWW (USA)

<Christopher.A.Peery@usace.army.mil>
Subject: [Non-DoD Source] Re: 20 LMN 02 MOC Unit Priority Change

nope thanks we have been waiting for a while on this one. stay safe and healthy.....

During May 14, 2020 FPOM meeting, the question was raised on what effect changing priority would have on tailrace condition. Response from Ryan Laughery:

-----Original Message-----
From: Peery, Christopher A CIV USARMY CENWW (USA)
Sent: Friday, May 15, 2020 7:21 AM
To:
Subject: RE: 20 LMN 02 MOC Unit Priority Change

FPOM,

During Thursday's FPOM meeting, the question was asked on what effect the change in unit priority to units 4,5 on last at Lower Monument would have on tailrace conditions. This is the response from Ryan Laughery;

"Northern priority is all that matters for adult passage at Lomo. We used to use unit 5 as a bit of a kicker for northern units to go downstream allowing it to entrain into the basin, but with these spill volumes the first 2 units nearest the basin get entrained into to the basin regardless at 30k spill or 100k spill. I would approve the MOC."

Any further questions or comments on this MOC?

Chris

-----Original Message-----
From: Trevor Conder - NOAA Federal [mailto:trevor.conder@noaa.gov]
Sent: Friday, May 15, 2020 8:25 AM
To: Peery, Christopher A CIV USARMY CENWW (USA)
<Christopher.A.Peery@usace.army.mil>; Josie Thompson - NOAA Federal
<josie.thompson@noaa.gov>
Subject: [Non-DoD Source] Re: 20 LMN 02 MOC Unit Priority Change

Chris,

Thanks, that satisfies my request. I have no concerns if Josie doesn't.

-Trevor

-----Original Message-----
From: Josie Thompson - NOAA Federal [mailto:josie.thompson@noaa.gov]
Sent: Monday, May 18, 2020 4:23 PM
To: Peery, Christopher A CIV USARMY CENWW (USA)
<Christopher.A.Peery@usace.army.mil>
Subject: Re: [Non-DoD Source] Re: 20 LMN 02 MOC Unit Priority Change

Nope, no concerns on that one. I do have one more question on early JBS shutdown, but I think Eric is in charge of that one. Is that correct?

Thanks for checking with me,
Josie

Josie Thompson
Columbia Hydropower Branch

Interior Columbia Basin Office
NOAA Fisheries, West Coast Region
503-231-2313
Josie.Thompson@noaa.gov <mailto:Josie.Thompson@noaa.gov>

Final coordination results

Approved

After Action update

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

Chuck Barnes
Supervisory Fish Biologist
Lower Monumental Lock & Dam
(509) 282-7211
Charles.A.Barnes@usace.army.mil