**OFFICIAL COORDINATION REQUEST FOR**

**NON-ROUTINE OPERATIONS AND MAINTENANCE**

**COORDINATION TITLE- 21 TDA 08 MOC** Spillgate Inspection

**COORDINATION DATE-** 16 AUG 2021

**PROJECT-** The Dalles Lock & Dam

**RESPONSE DATE-** 19 AUG 2021 (note short response, climber need to book travel).

**Description of the problem -** The Dalles spillgate inspection contract for gates 1-4 (north end) is set for the first week of September. This includes 30 and 31 Aug for prep work and gate inspection.

**Type of outage required –** Spillgates 1-5. Gate 5 added to reduce spray over gate 4 inspection.

**Impact on facility operation -** Spillway pattern per Fish Passage Plan may not be achieved during these days depending on river flow and required spill volume. Spill curtails to southern bays as flow volume reduces (refer to Fish Passage Plan spill patterns). This would simply concentrate the river flow spill volume on those dates through gates 6-8 only.

**Impact on unit priority -** None

**Impact on forebay/tailwater operation -** None

**Impact on spill** – Volume would remain the same, flow would be concentrated through gate 6-8 during the work.

**Dates of impacts/repairs –** 30 and 31 of August.

**Length of time for repairs –** Work last couple weeks, but overlaps the last two days of spill season.

**Analysis of potential impacts to fish**

1. 10-year average passage by run during the period of impact for adults and juvenile listed species, as appropriate for the proposed action and time of year;

Table 1. Potentially impacted adults on 30 and 31 August (based on 10 year average from Columbia River DART):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **Average passing 30th (count)** | **Average passing 30th (%)** | **Average passing 31st (count)** | **Average passing 31st (%)** |
| Fall Chinook | 2,449 | 0.009 | 3,095 | 0.012 |
| Steelhead | 676 | 0.004 | 776 | 0.005 |
| Unclipped Steelhead | 238 | 0.004 | 265 | 0.005 |
| Coho | 90 | 0.002 | 126 | 0.003 |
| Sockeye | 0 | 0 | 0 | 0 |

Juveniles: There is no juvenile monitoring facility at The Dalles, the John Day smolt monitoring facility is used as a proxy. According to the Fish Passage Plan, juvenile fish arrive at The Dalles Dam approximately one day later than at John Day Dam. The JD SMF’s most recent sample was 98.9% subyearling Chinook. Based on historic run timing, fewer than 5% of the young of year Chinook could be exposed to any impact on 30 and 31 August (Fish Passage Plan Table JDA-2).

1. Statement about the current year’s run (e.g., higher or lower than 10-year average):

The NOAA forecast for adult Fall Chinook run is less than the 10 year average and the Coho run is forecast to exceed the 10 year average.

1. Estimated exposure to impact by species and age class (i.e., number or percentage of run exposed to an impact by the action);

Less than 0.02% of any salmonid run could be impacted by this two day action (Table 1).

Based on historic run timing, fewer than 5% of the young of year Chinook could be exposed to any impact on 30 and 31 August (Fish Passage Plan Table JDA-2).

1. Type of impact by species and age class (increased delay, exposure to predation, exposure to a route of higher injury/mortality rate, exposure to higher TDG, etc.);

As bays 6-8 will be in operations, and the spill volume will remain withing FPP guidelines, there is no expected impact to juvenile or adult salmonids.

**Summary statement –** No fish passage impacts expected. Spill volume will remain the same. Pattern is normally concentrated to bays 7 and 8 only during < 87k river flow, but if greater, then bays 1-5 cannot be used. Additionally, spill is reduced to 30% river the last two weeks of spill, resulting in a higher likelihood that gates 1-5 will be closed during these days.

**Downstream migrants –** Depending on river flow, there might be fewer bays to pass through during the last two days of spill season. Spill volume will meet FPP

**Upstream migrants (including Bull Trout) –** No impacts expected

 **Lamprey –** No impacts expected. Based on the 10 year average we could expect to have 46 adult pass on 30 August and 41 adult to pass on 31 August.

**Comments from agencies**

**From:** Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>
**Sent:** Wednesday, August 18, 2021 7:33 AM
**To:** Tom Lorz <lort@critfc.org>; VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>; McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Bellarud, Blane <blane.bellerud@noaa.gov>; Scott Bettin <swbettin@bpa.gov>; Morrill, Charles <charles.morrill@dfw.wa.gov>; Jonathan Ebel <jonathan.ebel@idfg.idaho.gov>; Jay Hesse <jayh@nezperce.org>; trevor.conder@noaa.gov
**Subject:** RE: Official FPOM Coordination: 21 TDA 08 MOC Spillgate Inspection

Agree, this should not be the norm. I will reiterate that to the planners (most already know) Navlock issues threw us a curve ball this time.

Thanks

**From:** Tom Lorz <lort@critfc.org>
**Sent:** Tuesday, August 17, 2021 10:12 PM
**To:** Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>; VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>; McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Bellarud, Blane <blane.bellerud@noaa.gov>; Scott Bettin <swbettin@bpa.gov>; Morrill, Charles <charles.morrill@dfw.wa.gov>; Jonathan Ebel <jonathan.ebel@idfg.idaho.gov>; Jay Hesse <jayh@nezperce.org>; trevor.conder@noaa.gov
**Subject:** [Non-DoD Source] Re: Official FPOM Coordination: 21 TDA 08 MOC Spillgate Inspection

Thanks for the update.  I am never thrilled when we do this kinda of work during the spill season especially since shifting 3/4 days would move it out of concern.  I would strongly encourage in the future always schedule outside of spill and look at shifting the nav locke inspection or other inspections if needed.  Depending what the future may hold this lower spill at the end of August may get changed and one cannot always depend on very low flows to be able to do these inspections within the spillwall.

With that said the impacts this year will be minimal especially if all the spill is contained within the spillwall, which it should be.  So I am not going to object to going forward with this inspection.  I just want to strongly encourage doing this work outside of the spill season.  We hate to see it when projects start to creep outside of work windows and that becomes the norm.

Tom Lorz

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**From:** Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>
**Sent:** Tuesday, August 17, 2021 1:51 PM
**To:** VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>; Tom Lorz <lort@critfc.org>; McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Bellarud, Blane <blane.bellerud@noaa.gov>; Scott Bettin <swbettin@bpa.gov>; Morrill, Charles <Charles.Morrill@dfw.wa.gov>; Jonathan Ebel <jonathan.ebel@idfg.idaho.gov>; Jay Hesse <jayh@nezperce.org>; trevor.conder@noaa.gov <trevor.conder@noaa.gov>
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Erick

Some clarifications to the details;

1. We inspect 4 gates per year in attempts to cycle through all gates in ~5yrs. There will be no other gates inspected this year.
2. Navlock outage threw everything off. We would not have this MOC had that schedule not changed.
3. 30% spill will remain. Only the spill pattern might be minimally affected.
4. bay 5 is needed off so inspectors can see everything on bay 4 without the overspray

I am curious as to where you see there is a salmonid risk.

**From:** VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>
**Sent:** Tuesday, August 17, 2021 1:17 PM
**To:** Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>; lort@critfc.org; McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Bellarud, Blane <blane.bellerud@noaa.gov>; Scott Bettin <swbettin@bpa.gov>; Morrill, Charles <Charles.Morrill@dfw.wa.gov>; Jonathan Ebel <jonathan.ebel@idfg.idaho.gov>; Jay Hesse <jayh@nezperce.org>; trevor.conder@noaa.gov
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Hi Bob,

Thanks for the additional information. The details make it seem even more puzzling why the MOC changes could not have been more committed to avoiding unnecessary risk to fish passage operations. Since 8 bays and two lock miter gates are being inspected why not start with 19, 20, 21, and 23 and Nav lock miter gates without risking the planned spill operations through August 31 and number of spill bay closures?  If only 2-3 gates are inspected in a day, why not plan work on bays furthest away from active bays or start with Navigation lock miter gates (I assume that would be a day too)? Given these parameters, all the inspections should require no more than five days of work, and if considered as a whole could be managed to avoid this 2-day distraction that risk change in the 30% spill operation. I do not see any reason that bay 5 closure should be included in the MOC change. Alternatively, it sounds like going back to the original planned dates could be an option, since I assume that planning was coordinated with ample time to cover notification requirements.  Although I have plenty of thoughts to share about the generalized potential outcomes if the Corps does not complete this inspection work I will save it for another time. Right now it seems more important that an alternative that assures no risk to planned fish passage operations through August 31 is my preference.

Erick

**From:** Cordie, Robert P CIV (USA) <Robert.P.Cordie@usace.army.mil>
**Sent:** Tuesday, August 17, 2021 9:36 AM
**To:** VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>; lort@critfc.org; McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Mackey, Tammy M CIV USARMY CENWP (USA) <Tammy.M.Mackey@usace.army.mil>; Bellarud, Blane <blane.bellerud@noaa.gov>; Scott Bettin <swbettin@bpa.gov>; Morrill, Charles <Charles.Morrill@dfw.wa.gov>
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Erick, The story is much more complicated than just travel planning. We tried to keep the MOC short, but maybe didn’t include enough info. Here is the full story from our engineer;

“It would result in 2-3 gates being out of HSS compliance for a year; increase the complexity, and therefore likelihood of error, in inspection order and HECP operations; and/or induce overtime costs that were not budgeted or scheduled for.

We have two sets of inspections we need to complete, one week apart. One set is spillway gates 1-4; the other set is the just the U/S side of gates 19,20,21 and 23, as well as both Nav Lock miter gates. Originally we had gates 1-4 planned for 13-16 September, but was forced to switch weeks because we missed the notification window for nav outages.

We only have one set of stoplogs, so we need to be doing an U/S inspection every day of both inspections, to allow time for crane movements. So if we don’t get 1-4 starting Monday, the inspectors would need to start at The Dalles, complete a one hour U/S inspection of gate 19 and then drive to Bonneville because there is nothing else to inspect. That means we will be missing 4-6 D/S inspections between Monday and Tuesday. There is not enough time on Wednesday and Thursday to make it up, so those gates would need to be completed under unbudgeted overtime, or left out of compliance for the year.”

Given the odds of jeopardizing the spillgate inspection for this season, due to a perceived, but extremely unlikely fish passage impact, I think its unwise for us to deny this request.  The long term effect of missing any necessary inspections and PMs could result in needed spill gates out of service during the peak of juvenile passage season. We’re all familiar with bay 9 trunnion pin issue…… How would fish managers feel if that were any gates 1-4. I strongly recommend allowing this to proceed.

Please forward to anyone I missed. Didn’t want to reply to 150 people.

Bob

**From:** VANDYKE Erick S \* ODFW <Erick.S.VANDYKE@odfw.oregon.gov>
**Sent:** Tuesday, August 17, 2021 8:57 AM
**To:** McClain, Nathan A CIV USARMY CENWP (USA) <Nathan.A.McClain@usace.army.mil>; Whiteaker, John <whij@critfc.org>
**Subject:** [Non-DoD Source] RE: Official FPOM Coordination: 21 TDA 08 MOC Spillgate Inspection

Thanks for the note Nathan,

Given the short notice, I recommend the work be put off one week and schedule travel to have the inspector arrive September 6 2021. This should allow for the spill operation to be carried out without alteration and offer more time to plan travel. Why was travel planning delayed?

Erick Van Dyke

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Ocean Salmon and Columbia River Program

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**Final coordination results**

The Corps will proceed with the work as detailed above. There is a low potential the spill pattern may deviate from the FPP if a large amount of water comes down river. However, there is no evidence the potential change of spill bays, all inside of the spill wall, would impact adult or juvenile passage.

**After Action update**

Work was completed as planned. The spill pattern was borderline of a gate change on 8/30 for several hours in the afternoon, however, it fell within the normal operational range (Per FPP spill chart). On 8/31, the lower river flows were under the need for a pattern change. In summary there was no affect to spill operation.

Please email or call with questions or concerns.

Thank you,

Nathan McClain

NWP Operations Division Fishery Section (acting)

Columbia River Coordination Biologist

Nathan.A.McClain@usace.army.mil

Robert Cordie

Supervisory Fish Biologist

The Dalles Lock & Dam