

MEMORANDUM FOR THE RECORD – 17 LWG 23 – MFR Spillway 1 Gate Seal Inspection.**SUBJECT:** Spillway 1 gate seal damage inspection.

Spillway 1 gate seal was damaged June 19 during the removal of several logs wedged between the RSW and the spillway gate (photo 1&2). The RSW was closed at 1313 hours July 12 due to increased forebay water temperatures. Inspection of the seal requires the gate to be open 100% and was delayed until the RSW is re-opened for extended spill in support of Phase 1a. In the interim, as-built drawings and the tech section has been consulted by the mechanical crew to determine repairs and material needed to replace the missing section of the seal. The Project coordinated a 2-3 hour window the work week of September 18-21 to inspect the gate seal and verify the accuracy of the drawing. This information will be used to determine the materials needed to be ordered, time needed for materials to be delivered, develop a procedure and safety plan for work, and estimate of the total time needed for repairs. Spillway 1 gate seal was inspected from 1200-1352 hours September 19. During the inspection it was determined that about 20 feet of the seal is missing. To safely make seal repairs bulkheads will need to be installed in spillway 1. This will require the RSW to be tilted about 35 degrees in the upstream direction away from the spillway. Operations will need to monitor the RSW 24 hours/day to ensure damage to the RSW or spillway gate does not occur due to winds or river flows. Estimating the procurement time for materials and the time needed to perform repair work is ongoing due to the scope of the damage and unique access issues to the repair site. Following inspection the Project recommends ordering the required material/parts in preparation for repairs to begin after end of the 2018 spill season.

- A. Species – N/A
- B. Origin – N/A
- C. Length – N/A
- D. Marks and tags – N/A
- E. Marks and Injuries found on carcass – N/A
- F. Cause and Time of Death – N/A
- G. Future and Preventative Measures – N/A



Photo 1. Logs wedged between RSW and spillways gate June 19, 2017.



Photo 2. Spillway 1 seal leak while gate is in the closed position.

Sincerely,
Elizabeth Holdren
Supervisory Fisheries Biologist
Lower Granite Dam
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Comments Received:

From: Trevor Conder - NOAA Federal
To: Setter, Ann L CIV USARMY CENWW (US)
Cc: Bill Hevlin - NOAA Federal; Tom Lorz
Subject: [EXTERNAL] Re: 17 LWG 23 MFR
Date: Wednesday, September 20, 2017 9:25:23 AM

Ann,

We recommend fixing this as soon as possible. Thanks

From: Bettin, Scott W (BPA) - EWP-4
To: Setter, Ann L CIV USARMY CENWW (US)
Subject: RE: [EXTERNAL] 17 LWG 23 MFR
Date: Wednesday, September 20, 2017 9:27:02 AM

Can they take a seal off of another less used gate?

From: Morrill, Charles (DFW)
To: Setter, Ann L CIV USARMY CENWW (US)
Cc: Morrill, Charles (DFW)
Subject: [EXTERNAL] RE: 17 LWG 23 MFR
Date: Wednesday, September 20, 2017 12:01:28 PM

Thanks Ann,

hoping that materials needed for repair can be procured quickly and perhaps project staff can get this done before winter arrives.

Charlie

From: Swank, David
To: Setter, Ann L CIV USARMY CENWW (US)
Subject: [EXTERNAL] Re: 17 LWG 23 MFR
Date: Wednesday, September 20, 2017 2:04:26 PM

Hi Anne,

It would be really unfortunate to be without the Lower Granite RSW for the entire 2018 spill season, especially with the gas cap spill operations planned for next year. If there's any way we could get these repairs done (safely of course), even if it means having it out of service for some time this fall, I think we should explore that option.

Dave

Conversation at 9/20/17 TMT mtg from R. Kiefer, IDFG:

They are concerned with going into spring spill with leakage which may entrain, injure, and kill fish. Please get repaired if at all possible even if it requires an outage this fall.

Update sent out:

On Thu, Sep 21, 2017 at 8:24 AM, Setter, Ann L CIV USARMY CENWW (US) <Ann.L.Setter@usace.army.mil <<mailto:Ann.L.Setter@usace.army.mil>>> > wrote:

FPOM:

Following up on 17 LWG 23 details and 7-20-17 TMT discussion regarding fish impacts from damaged gate seal on spillway 1 at Lower Granite.

Most importantly, the RSW functions normally with the damaged gate seal and has no risk of negatively impacting fish condition, it is when RSW is out of service that the failed seal leaks. I am told that the failed seal area opening is about 1 inch by 20 ft long. Project staff are routinely monitoring to watch for any unforeseen sign of fish impact.

The project does not believe due to logistics that they will be able to complete repair this fall/winter. The seal can be purchased in relatively short order, but accessing the area to repair the seal will require procurement of some specialized equipment, in order to undertake safely.

Let me know if you have any further comment.

Ann Setter

From: Swank, David
To: Setter, Ann L CIV USARMY CENWW (US)
Subject: [EXTERNAL] Re: update on 17 LWG 23 spillway 1 gate seal
Date: Monday, September 25, 2017 9:15:52 AM

Hi Anne,

Thanks for the clarification. I was misunderstanding the impact of the leak and when it occurs.

Dave

From: Tom Lorz
To: Setter, Ann L CIV USARMY CENWW (US)
Cc: Trevor Conder
Subject: [EXTERNAL] RE: 17 LWG 23 MFR
Date: Tuesday, September 26, 2017 4:36:09 PM

If the work can not be done this in water work we would recommend reviewing the PIT tag detector installation schedule and insure that this work does not interfere with that. We would prefer that we get the work done this year and have the project still look at what it would take to complete this year. If the work does not take that long to complete then doing in late winter or early spring might be an option. More discussion on this topic is warranted and should be on the next FPOM agenda.

Thanks

Tom Lorz

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