

MEMORANDUM FOR THE RECORD 22 LMN 03**SUBJECT:** Spillbays 1,2,6,7 OOS

On November 22, 2021, Spillway Gate 3 was declared out of service because of the trunnion bearing friction value being exceeded. A trial modification was attempted to add grease fittings to the trunnion bushing in Bay 3 in late March. After the modification the friction coefficient declined from 0.23 to 0.08 and NWW Dam Safety determined Bay 3 could be returned to operation on 19 April 2022. Measurements of the remaining eight spill bay trunnions revealed that four, bays 1,2,6,7, exceed the friction level for safe operations. On 22 April 2022, these four spill bay gates were taken out of service until modification can be made to lower trunnion bushing friction levels.

Trunnion Friction Values per BDI, Inc report, April 2022

Spillway Gate Number	Trunnion Friction Value	Service Status
Tainter gate 1	.24	Out of Service
Tainter gate 2	.23	Out of Service
Tainter gate 3	.08*	In Service
Tainter gate 4	.21	In Service
Tainter gate 5	.22	In Service
Tainter gate 6	.23	Out of Service
Tainter gate 7	.25	Out of Service
Tainter gate 8	.20	In Service

* Values after interim greasing operation

NWW Operations and Lower Monumental Project are developing a course of action to modifying gates and return them to operation so as to minimize impacts to fish passage, water quality and flood management capabilities. Adjacent bays must be closed while repairs are ongoing for the safety of personnel. All in-criteria bays will be returned to operation at night. The decision to return bays to operation following repairs will be made on a case-by-case basis. The proposed repair schedule is;

25 – 29 April; Close Bay 8 (RSW) and repair Bay 7.

30 April-4 May; Close Bay 5 and repair Bay 6.

5-9 May; Close Bay 3 and repair Bay 2.

10-15 May; Close Bay 2 and repair Bay 1.

- 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 – Outfit all spill bay gates with automatic grease systems and permanent friction sensors

Sincerely,
Chris Peery
NWW OD-T