

## **FY17 Columbia-Snake River Navigation Lock Extended Outage**

### **Progress Update to Navigation Stakeholders**

Information presented during conference call with stakeholders on March 30, 2017

Thank you for your continued support and interest in the 2016-2017 Columbia-Snake River System extended navigation lock outage. For those who may be new to this topic, here's a bit of background:

The U.S. Army Corps of Engineers conducted an extended navigation lock maintenance outage, from December 12, 2016, through March 20, 2017. The closure affected all Corps navigation locks on the Columbia and Snake rivers, during which time critical, non-routine repairs and maintenance, plus routine maintenance and scheduled improvements occurred.

The project information below was originally provided during a navigation-stakeholder teleconference on March 30, 2017. For those who were unable to attend that teleconference, here are the latest status updates:

**All locks** – All locks were taken out of service on December 12, and numerous in-lock work activities were accomplished during this time.

Seven of the eight navigation locks in the system have returned to service.

At Lower Monumental and Lower Granite locks, work on the tainter valves at both locations, that could not be accomplished during the recent extended lock outage due to resource constraints, will continue until June 2017. Lockage times may be up to 10 minutes longer than usual until that work is completed that is a correction from the previous estimate of up to 20 minutes of delay.

Little Goose dam's navigation lock could not be returned to service by March 20 because of on-site work complications which prompted the Corps to award a new contract March 10 for the completion of the remaining work. It is currently estimated to return to service at 11:59 p.m. on April 11.

**Bonneville Lock and Dam** – Bonneville completed their navigation lock controls upgrade and reopened the navigation lock to river users on February 9, 2017, as scheduled.

**The Dalles Lock and Dam** – The Dalles completed their work and returned their lock to service at 1 p.m. on March 20. The lock had several major work projects conducted during the extended outage -- replacement of the upstream gate; for the downstream gate, replacement of the gudgeon, performing adjustments, installing cathodic protection; and upgrading the lock controls and power distribution system.

**John Day Lock and Dam** – John Day's lock returned to service on March 18. Completed, routine maintenance activities include inspecting, cleaning and repairing equipment. Interim repairs to the downstream gate bearing shoe have also been completed.

**McNary Lock and Dam** – McNary's lock reopened to river traffic on March 17. Work on the downstream miter gate included: repairs to the gudgeons (top hinge of each gate leaf), replacement of the bottom seal assemblies, and replacement of deteriorated timber fenders on each gate leaf, and bumpers on the navigation lock walls adjacent to the downstream gate.

**Ice Harbor Lock and Dam** – Ice Harbor's lock returned to service on March 23. Critical components of the NavLock machinery and control systems required replacement during the extended closure. The navigation lock at Ice Harbor Dam required additional work to address an unexpected mechanical issue that developed

during the downstream lock gate's commissioning process. Corps maintenance staff and engineers investigated unusual "popping" noises that occur while the gate hoist machinery of both towers are in operation. The source of the popping noise was identified, measured, and mitigated to the greatest extent possible. By analyzing data gathered using advanced instrumentation, engineers were able to determine that there was no cause for concern of premature failure. A long-term monitoring plan will be developed from which future recommendations can be made. Vessel occupants may be able to hear the "popping" noise while locking through, although this "nuisance noise" is not a cause for safety concerns.

**Lower Monumental Lock and Dam** – Lower Monumental's lock returned to service at 2:30 p.m. on March 20. Work conducted during the outage involved the second phase of the downstream gate replacement project, which includes replacing the machinery and control systems that operate the gate. Some work on the tainter valves will continue (likely through June 15) -- lockage times may be up to 10 minutes longer than normal until that work is completed. Divers have completed the underwater timber-bumper repairs on Lower Monumental's floating guidewall upstream of the lock and demobilized from the jobsite, so there will be no impact from that evolution. Tugs/tows are requested to avoid impacts to the upstream floating guidewall as stated in Notice To Navigation Interests 7436 on March 20, 2017.

**Little Goose Lock and Dam** – Little Goose's lock is currently scheduled to return to service at 11:59 p.m. on April 11. As previously discussed, Little Goose's downstream gate could not be returned to service by March 20 because of unexpected work complications that occurred within the navigation lock. Most recently, operational testing of the North gate revealed that the new pintle heel was not replaced in the correct position under the previous contract. The North gate requires machining 1/16" off the gate quoin blocks to correct the deficiency and return the gate to service. Repairs to the North quoin block is underway, with scaffolding being assembled at this time. Machining is scheduled to commence Friday and be complete by end of shift Sunday. Surveying was performed last week on the South gate, confirming the South pintle heel was installed about 1/2" out of position under the previous contract. Corrections were made to the pintle heel, and the gate was moved into place on Tuesday, and operated yesterday to verify the alignment. The south gate is now in the correct position, and following repairs on the north gate, Knight Construction will do final alignment of the quoin and miter seal contact blocks and perform the final pre-operation testing and commissioning of the gates. Again, at this time, the return-to-service date is 11:59 p.m. on April 11.

**Lower Granite Lock and Dam** – Lower Granite's lock returned to service on Monday, March 20. Maintenance crews completed the replacement of damaged timber bumpers on the downstream miter gate and installation of new upstream gate cables. Some work on the tainter valves hydraulic cylinders will continue (likely through June 15) -- lockage times may be up to 10 minutes longer than normal until that work is completed.

This extended lock outage has been a coordinated effort between the Corps' Portland and Walla Walla districts and commercial river users.

We want to assure Stakeholders that the District has been and will continue to exercise all available actions to accelerate the remaining repairs and minimize the delay in storing safe and reliable lock service. We understand the vital importance of the Columbia and Snake rivers to the economy of the Pacific Northwest, and realize that commercial lock users need as early a decision as possible on changes to the outage schedule in order to adjust their own plans.

We hope you can join us for next week's status-update teleconference on Thursday, April 6, at 1 p.m. Please, reference the attached **FY17LockOutage Stakeholder Teleconference Schedule** for call-in instructions.

For those who cannot attend the teleconference meeting, a written stakeholder update will also be sent the following day via email and posted to the FY17 Extended NavLock Outage webpage <http://www.nww.usace.army.mil/Missions/Navigation/FY17LockOutage.aspx>.

We also promise to provide interim email updates regarding any schedule-specific information, as soon as we can confirm it. Please, be sure you've signed up for outage updates by email. Just send an email to [FY17LockOutage@usace.army.mil](mailto:FY17LockOutage@usace.army.mil) with your contact information, and we'll add you to the distribution list

As always, you are also welcome to call or email our Public Affairs Offices at the numbers and addresses below.

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