

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

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

Information presented during conference call with stakeholders on February 9, 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 is conducting an extended navigation lock maintenance outage December 12, 2016, through March 20, 2017. The 14-week-long closure affects 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 will occur.

The project information below was originally provided during a navigation-stakeholder teleconference on February 9, 2017. Please, note that these teleconference updates will occur weekly throughout the duration of the extended lock outage. For those who were unable to attend the February 9 teleconference, here are the latest work-progress updates:

**All locks** – All locks were taken out of service on December 12, and numerous in-lock work activities are being accomplished during this time. Overall, progress continues on-track, although the unusually extreme winter conditions this year are having some effect on individual contract work schedules and on in-house work. To maximize maintenance opportunities, all sites are continuously assessing their schedule, progress and resource availability with the intention of ensuring critical lock-maintenance activities are accomplished within the extended-outage schedule.

**Bonneville Lock and Dam** – Good news! Climbing inspection of downstream miter gate was completed. In anticipation of the poor weather forecasted, the lock was watered up and the crews accelerated the in the wet testing. Bonneville has completed their navigation lock controls upgrade and reopened the navigation lock to river users this morning (February 9, 2017), as scheduled. A Notice to Navigation Interests was sent by email.

**The Dalles Lock and Dam** – The lock has several major work projects happening during the outage -- replacement of the upstream gate; and for the downstream gate, replacement of the gudgeon, performing adjustments, installing cathodic protection, and upgrading the lock controls and power distribution system. For the upstream gate, with the gate now in-place, the contractor is working to install rebar and formwork to pour back the concrete that had to be removed to install the gate. The gate lifting machinery bases are set. On the downstream gate, the cathodic protection installation continued, the new gudgeon anchors were installed, grouted and concrete poured back under the anchors. The electrical subcontractor continued installing the new controls and the new power system was energized. Moving forward, work on the upstream gate will include pouring concrete into the area where it was removed to install the new gate -- that is scheduled to take place this weekend. The machinery bases will be grouted, and once cured, the machinery will be installed and connected to the gate. Gate seals will be installed. On the downstream gate, once the pour-back concrete is cured, the new gudgeon anchors will be post-tensioned, then connected to the gate and temporary support connections will be removed to allow for gate adjustments to begin. The electrical work will continue with controls and power distribution equipment installation. Electrical testing and check out on the completed areas will also continue. As reported during the last several calls, extreme winter weather has caused major impacts to our construction progress. There is additional poor weather occurring now. We have been able to make progress at a fairly normal production rate, at times, but anticipate additional impacts. We have not made any decisions to change the lock outage dates and our team continues to work with the contractor to determine the most effective path forward. The situation is very dynamic as the inclement weather and forecast continues. Bottom line: We continue to do everything possible to safely complete our

work within the outage window. We want to emphasize, we have not made a decision to make any changes to the overall schedule. We will continue to keep you informed of this dynamic situation via these teleconferences.

**John Day Lock and Dam** – John Day’s routine maintenance activities include cleaning and inspecting equipment, painting, cleaning staff gauges, changing gear box fluids, repairing upstream and downstream guide-walls, safety inspections, and other preventative maintenance actions. The upstream gate is still dewatered and the scaffold is being removed after weld repairs on the gate. We have completed inspections of the upstream gate wire ropes, end connections and associated equipment. We anticipate moving the floating bulkhead to the lower end of the lock on February 13 to facilitate the lock's de-watering. Once the lock is de-watered, we will inspect the downstream gate, bearing shoes, guide wheels and grease the wire ropes and associated machinery. Tainter valves, conduits and the overall lock will be inspected at that time. Work is on schedule.

**McNary Lock and Dam** –Walla Walla District plans to complete several repairs to the downstream miter gate, including repairs to the gudgeons (top hinge of each gate leaf), replacing the bottom seal assemblies and deteriorated timber fenders on each gate leaf, and replacing bumpers on the navigation lock walls adjacent to the downstream gate. Also during the outage, McNary staff plan to complete repairs to one fill tainter valve and one drain tainter valve using in-house labor. The bottom gate seal replacement is in progress. Old seals have been removed on both gate leaves. Fabrication of new seal bars are complete. Installation of the new seals are scheduled to be complete on the north leaf by mid next week and complete on the south leaf by February 20. The jacking and shoring system for gudgeon repairs is in place on the north leaf. Gudgeon pin removal is in progress on the north leaf and is scheduled for completion today. Line-boring for the new pin installation is scheduled to begin tomorrow February 10. Installation of the new timber bumpers on the Nav-Lock concrete wall is scheduled to be complete on the South side today. Installation of the new timber fenders on the South leaf started today and is scheduled to be complete on Saturday, February 11. Installation of new bottom seals is scheduled to begin next week on the north gate leaf. The winter weather and hazardous road conditions continue to hamper the contractor’s progress, but they have transitioned to a 6 day work week to remain on schedule. McNary’s in-house maintenance crew continues scheduled maintenance activities and repair work on tainter valves Number 1 and Number 3. Overall, work at McNary is on schedule.

**Ice Harbor Lock and Dam** – Critical components of the NavLock machinery and control systems require replacement during the extended closure. Inspections of the existing sheave hubs and shafts revealed unforeseen gouging that required refurbishment. This included machining down to clean metal, fabricating new sleeves, and modifying the sheave hubs to maintain proper fit-up with the new shafts. The north and south tower sheave refurbishment is complete. The sheaves, shafts, bearing assemblies, and ring gear have been flown back into each tower with the exception of half of the ring gear for the south tower, which is awaiting a lift into place. Final alignment of the mechanical equipment is in-progress. Work continues on the installation of the new electrical and controls equipment. Point-to-point wire testing is scheduled for 10 February. All 24 hoist cables are being cleaned and greased over the next few weeks. The contractor is working seven days per week, 12 hours per day. Overall, work is still on schedule to be completed during the lock outage. In-house crews are performing weld repair work on the downstream gate. It is being done concurrently with the contractor’s work on the machinery towers. This work is also on schedule.

**Lower Monumental Lock and Dam** – Work at Lower Monumental involves the second phase of the downstream gate replacement project, which includes replacing the machinery and control systems that operate the gate. The contractor is currently working seven days per week and continues to regain time lost from the previous winter weather. The installation of the new control panels is complete and initial

commissioning of the panels is scheduled to begin on February 11. The installation of new hoist drive train equipment including motors, gear boxes, and pinion gears is scheduled to be complete on February 11 for both towers. Installation of the new water level sensors is complete. Final wiring terminations and initial testing of the control system is scheduled to be completed by the end of next week. Painting of new equipment is scheduled for next week. Commissioning of new hoist equipment and controls is scheduled to begin February 19. In-house staff continues working on the upstream gate and a tainter valve. Overall, work is on schedule.

**Little Goose Lock and Dam** – Work at Little Goose involves replacement of a gudgeon arm and linkage, and replacement of the pintle assembly for both downstream lock gate leafs. Structural repairs include resurfacing the quoin and miter, replacing timber fenders, painting the lower 20 feet of each gate leaf, and installing safety hand rails on the top of each gate leaf. At this time, both miter gates have been safely jacked and shored, with the gudgeon arms, timber supports, and the quoin and miter blocks removed. Work continues on the structural steel repairs to the skin plates and stiffeners, timber fender supports, as well as the replacement of the pintle heel assemblies. Difficulty in removing the existing pin in the operating cylinder and replacement of the south gate's jacking system, as well as poor weather conditions, delayed the contractor's schedule approximately 10 days. The contractor continues to work two, 12-hour shifts, and six days a week to recover the delays. At this time, the government is working with the contractor to identify opportunities to ensure the gates are returned to schedule by the completion date of the extended outage. Overall, work is on schedule.

**Lower Granite Lock and Dam** – Work continues with replacement of the upstream gate wire ropes on the south side, and is anticipated to be complete next week. Crews are also working on replacement of damaged timber bumpers on the downstream miter gate and installation of new fill/drain valve hydraulic cylinders. Work is on schedule.

This extended lock outage is a coordinated effort between the Corps' Portland and Walla Walla districts and commercial river users. Our goal is to prioritize and accomplish urgently needed lock repairs along the Columbia and Snake rivers while minimizing the impact lock closures have on river users.

**ON-SITE MEDIA EVENTS:** In order to ensure our stakeholders and the public remain informed about our progress, we conducted media days in both districts. Portland District's media day at The Dalles lock took place January 31, as the new upstream gate was placed by crane into its permanent position. Walla Walla District conducted its media day on February 2 at Ice Harbor's lock to see the new lock gate machinery being lifted by crane into the gate towers. Thank you to all who were able to attend these events.

We will continue to provide regular updates on work in progress. Our next teleconference update is scheduled for February 16 at 1 p.m. -- we hope you can join us for this call! 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>.

For more information about the extended outage or to sign up for future email updates, visit our website or email [FY17LockOutage@usace.army.mil](mailto:FY17LockOutage@usace.army.mil). You are also welcome to call or email our Public Affairs Offices at the numbers and addresses below.

Portland District Public Affairs Office  
(503) 808-4510  
[cenwp-pa@usace.army.mil](mailto:cenwp-pa@usace.army.mil)

Walla Walla District Public Affairs Office  
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Sincerely,

Sheryl Carrubba  
Senior Navigation Program Manager  
Northwestern Division, U.S. Army Corps of Engineers

# FY17LockOutage

## Stakeholder Teleconference Schedule

All dates are Thursdays at 1 p.m. (Pacific)

**Monthly** – Sept. 8, Oct. 6, Nov. 3

**Weekly** – Dec. 1, 8, 15, 22, 29

Jan. 5, 12, 19, 26

Feb. 2, 9, 16, 23

Mar. 2, 9, 16

### Teleconference Call-in Instructions

Dial: **877-848-7030** Toll-Free

When prompted, enter:

Access Code **4909700#**

Security Code **7020#**

★Written update information presented during teleconference will be distributed via eMail and Web-posted the following day



[FY17LockOutage@usace.army.mil](mailto:FY17LockOutage@usace.army.mil)



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