

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

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

Information presented during conference call with stakeholders on January 19, 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 January 19, 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 January 5 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-schedule. To maximize maintenance opportunities at all of our locks, all sites are continuously assessing their schedule, progress and resource availability with the intention of adding additional work items to routine lock-maintenance activities within the extended-outage schedule, dependent upon available resources.

**Bonneville Lock and Dam** – The navigation lock controls will be updated, which includes removing existing navigation lock systems and control interfaces, and installing new programmable logic controllers (PLCs). In-house crews continue wrapping up loose ends on the new controls hardware installation and connections. System commissioning was scheduled to begin on January 17, which is a systematic run through of all systems to ensure the new hardware and software is performing as expected. However, unsafe travel conditions and road closures due to extreme winter weather delayed the start of this activity. Some of the other work that was scheduled to take place, like climbing inspections of the gates continues to be delayed due to the bad weather, those will be rescheduled as time and weather permits. The commissioning will begin once crews can safely travel to the dam. Even with the road closures and poor weather conditions, Bonneville's NavLock is still on track to reopen on February 9.

**The Dalles Lock and Dam** – The lock will have 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. Work on the upstream gate is temporarily on hold due to extreme winter weather conditions. The only change since last week's update is that drilling into the lock walls for the new trunnion installation is now complete. Once weather permits, we will remove the concrete on the north side of the lock, which requires moving the large ringer crane, which cannot be accomplished in the ice and snow conditions. Then install the new trunnion anchors and place the new upstream gate into the lock chamber. On the downstream gate, concrete demolition and drilling for the new gudgeon installation continues. The cathodic protection system installation is on hold due to access issues from freezing rain and icy conditions in man baskets and scaffolding. Moving into next week, we plan to continue demolition of the concrete, remove the old gudgeon hardware, and begin installation of the new. In parallel with that effort cathodic protection installation will continue. The electrical subcontractor continues pulling old controls and power distribution equipment and wiring, and connecting the new. This work, being conducted mostly indoors, is least impacted by weather events.

As indicated in this status update, extreme winter weather continues to hamper progress. The first snow event at The Dalles happened, December 8 (the day the upstream gate was unloaded off the barge), and the poor weather has persisted ever since. Even though the weather was bad, and as we reported last week, we continued to make progress through the demolition phase. However, the snow, ice and frigid conditions have continued. The extended ice and cold is having a cumulative impact, now that we are moving into the reconstruction phase. For instance, last week's snow and the current storm, with heavy rains and possible warming, produced river flow predictions late last week that we had to react to. River flow predictions indicated that our tailrace stoplogs could be overtopped. We spent 2 days over the weekend removing dewater pumps and setting an extra tailrace stoplog. This was done to ensure that we didn't flood the contractor in the dewatered navigation lock.

We account for weather days, based on historic weather data, when we put together construction contracts. This year has by far exceeded the historic data. Our next approach is to accelerate the contractor's activities by adding extra shifts and/or crews in order to keep on schedule. However, if weather events continue to create hazardous working conditions, there is only so much lost time that can be recovered by accelerating work activities once the weather improves. Our last alternative could ultimately require an extension to the outage. We have not made any decisions to change the dates, and our team continues to work with the contractor to determine the most effective path forward. The situation is very dynamic as the bad weather continues.

Bottom line -- We are doing 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. However, we owe it to you to be open on the status and may ultimately have to extend when the lock will reopen. We will continue to keep you informed of this dynamic situation via these teleconferences.

**John Day Lock and Dam** – Portland District has no extensive repairs planned for the John Day navigation lock. Maintenance crews will use the time to clean and check equipment, paint, clean staff gauges, change gear box fluids, repair upstream and downstream guidewalls, and conduct extensive preventive-maintenance actions and safety inspections. Crews are currently repairing welds on the upstream gate. 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 government team continues transferring material to the contractor this week. On Monday, January 16, the contractor began surveying activities and removal of the bottom seal assemblies. Due to the freezing rain and ice on Wednesday, January 18, the contractor's progress was impacted by about a half-day, but we remain confident that by extending their work week to 5 or 6 days per week, they will quickly recover the lost time. Over the next week, the contractor will continue surveying activities and removal of the bottom seals. Jacking and shoring of the south gate leaf in preparation for the gudgeon repairs is also scheduled to start early next week. McNary's in-house maintenance crew continues scheduled maintenance activities and replacing seals on tainter valves. Repair work began on the tainter fill valve this week. 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. The contractor has completed separation of the sheaves and removal of the sheave shafts in both gate towers. Inspection of the existing sheave hubs and shafts revealed

gouging that will require machining down to clean metal. This will require fabricating new sleeves and modifying the hubs to maintain proper fit-up with the new shafts. The new ring gear is also in the shop for alignment with the existing sheaves. The contractor is working 7 days per week, 12 hours per day. Overall, work is still on schedule and potential impacts of this unanticipated repair are being assessed. We continue to work closely with our prime contractor, and we will do all we can to avoid any impacts to the overall outage schedule. As always, we will keep our stakeholders informed. Work continues on demolition and installation of the new electrical and controls equipment in both towers. All 24 hoist cables are being cleaned and greased over the next few weeks. Performing lead paint abatement on the existing bases in both towers. In-house crews started weld repair work on the downstream gate on Monday, January 9. That work 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 7 days per week and has regained some of the time lost from the extreme winter weather. Weld repairs on both tower friction sheaves are complete, and the contractor will finish the required verification testing for the welding this weekend. The replacement of the friction sheave bearings in the south tower machinery room is complete and the replacement of the friction sheave bearings in the north tower is in progress and is scheduled to be complete Saturday, January 21. Over the next week, the contractor continues with the installation of the new control panels and the associated wiring terminations, and will begin the installation of new equipment bases, new motors, and new pinion gears. In-house staff is continuing work 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 leaves. Structural repairs will 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. The contractor continues preparations on the south gate leaf for jacking the gate. Difficulty in removing an existing pin on the operating cylinder and replacement of the jacking system delayed the contractor's schedule about a week, however the contractor is implementing a two-shift work week to recover the delay. Once the gate has been moved work will commence on the pintle heel assembly replacement, and structural steel repairs to the supporting areas. The contractor has removed the lower sections of the miter blocks on the south gate leaf, and will remove the quoin side once the gate has been moved. Painting of the gate leaves are scheduled to occur mid-January through February. In-house staff continue to perform essential preventative maintenance. Overall, work is on schedule.

**Lower Granite Lock and Dam** – Lower Granite continues with replacement of the upstream gate wire ropes on the south side, 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 OPPORTUNITIES:** In order to ensure our stakeholders and the public are informed about our work and our progress, we are planning a media day in both districts.

Portland District is planning a media day at The Dalles lock as the new upstream gate is placed by crane into its permanent position. We will have an exact date and time scheduled by our next conference call. If you're

interested in attending, please email us at [FY17LockOutage@usace.army.mil](mailto:FY17LockOutage@usace.army.mil) with your full name, organization and phone number, and we will provide you with more information as it comes to us.

Walla Walla District is planning a media day at Ice Harbor's lock to see the new lock gate machinery being lifted by crane into the gate towers. Currently, it looks like that activity will also likely occur during the last week of January going into February. The exact date will be set once the contractor refines their schedule.

We will provide more information on these site-visit opportunities as they are locked in on the schedules. Because of the nature of construction work, we may only have a few-days' notice prior to the targeted activities. Commercial navigation stakeholders will be welcome to join us on those days.

We will continue to provide regular updates on work in progress. Our next teleconference update is scheduled for January 26 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  
(509) 527-7020  
[cenww-pa@usace.army.mil](mailto:cenww-pa@usace.army.mil)

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)



BUILDING STRONG®