

FY17 Columbia-Snake River Navigation Lock Extended Outage

Progress Update to Navigation Stakeholders

Information presented during conference call with stakeholders on January 26, 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 26, 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 26 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 usually extreme winter conditions this year are having some effect on individual contract work schedules and on in-house work. These impacts are discussed below.

Bonneville Lock and Dam – The navigation lock controls are being updated, which includes removing existing navigation lock systems and control interfaces, and installing new programmable logic controllers (PLCs). System commissioning -- which is a methodical run-through of all systems to ensure the new hardware and software is performing as expected -- began this week. The various lock components are being tested both manually and through the automated control system. As work progresses, strain gauges will be reinstalled. After the downstream miter gate climbing inspection is performed, the lock will be watered-up to tailwater elevation and wet-testing will be conducted. Bonneville's navigation lock is still on track to reopen on February 9.

The Dalles Lock and Dam – The lock has several major work projects happening during the outage, to include 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. On the upstream gate, the trunnion anchor drilling and concrete demolition were completed during the past week. On the downstream gate, drilling for the new gudgeon horizontal and vertical anchors continues. The cathodic protection system installation also continues. The electrical subcontractor continues installing the new controls, power distribution equipment and wiring. On the upstream gate, upcoming activities include installing and testing the new trunnion anchors, placing the new upstream gate into the lock chamber and forming and pouring the lock walls. On the downstream gate, upcoming activities include the continuation of drilling and installing the gate anchors and installing the new gudgeon hardware. In parallel with that effort, cathodic protection installation will continue. Electrical work will continue with controls and power distribution equipment installation. Electrical testing and check out on the completed areas will also begin. As reported last week, weather has caused major impacts to our construction progress. The weather has taken a turn for the better, but additional poor weather is forecasted. During this break in the weather, we've been able to make progress at a fairly normal production rate, but anticipate additional impacts should weather conditions worsen. 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 poor weather forecast continues. Bottomline. 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. 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 –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 dewatered and a scaffold has been built on the gate for weld repairs, with cracked welds to be ground out on Tuesday, January 31, and re-welding to occur February 1 and 2. While those repairs are being performed, we are inspecting the upstream gate wire ropes, end connections and associated components. Scaffolding is scheduled to be removed Monday, February 6, at which point the caisson will be moved to the lower end of the lock 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 government team completed transferring material to the contractor. Pre-construction surveying activities are in progress and are scheduled to be complete on January 27. Bottom seal replacement is in progress. Old seals have been removed on both gate leaves. Fabrication and delivery of new seal bars are scheduled for completion on February 1. The contractor is installing jacking and shoring hardware for gudgeon repairs on the north gate leaf. Line boring is scheduled to begin next week. Timber fender replacement is also scheduled to begin next week. Overall, work at McNary is on schedule.

Ice Harbor Lock and Dam – Critical components of the navigation lock 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 tower sheave refurbishment is complete, and sheave, shafts and ring gear have been shipped to the work site. Installation of the sheave, shafts, new bearings and alignment of ring gear is in progress. The south tower sheave refurbishment is in progress at the contractor’s shop and this equipment is scheduled to be shipped back to the site next week. Work continues on the installation of the new electrical and controls equipment. All 24 hoist cables are being cleaned and greased over the next few weeks. The contractor is working 7 days per week, 12 hours per day. Overall, work remains on schedule and potential impacts of the unanticipated sheave and shaft repairs are being assessed. We continue to work closely with our prime contractor, and will do all we can to avoid impacts to the overall outage schedule. As always, we will keep our stakeholders informed. 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 continues to regain some of the time lost due to the previous extreme weather. Weld repairs and verification testing is complete on both tower friction sheaves. The replacement of the friction sheave bearings is complete. The installation of the new control panels is approximately 80-percent complete. The installation of new equipment bases, new

motors and new pinion gears is in progress and will continue over the next few weeks. Installation of the new water level sensors started today. Installation of new gear boxes is scheduled to start next week. 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 leafs. 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 south gate leaf was jacked and moved on January 19 with no issues. Work has commenced on replacing the pintle heel assembly, and removal of the quoin blocks on the south side of the navigation lock. Containment for blasting and painting of the lower 25 feet of the south gate is ongoing, with painting of the gates scheduled to occur through February. Installation of the north gate leaf railing supports for jacking and shoring of the gate are underway, and the gate is scheduled to be moved on January 28. Difficulty in removing the existing pin in the operating cylinder and replacement of the jacking system of the south gate delayed the contractor's schedule. The on-site schedule is 10 days behind, however the contractor is staffing two, 12-hour shifts, and working six days a week to avoid impact to the overall outage schedule. In-house staff continue to perform essential preventative maintenance. Overall, work is on schedule.

Lower Granite Lock and Dam – As weather permits, 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. That event is currently expected to occur on Tuesday, January 31, from 10 a.m. to noon. Please, note both the time and date are dependent on the contractor's schedule and may change. If you're interested in attending, please email the Portland District at FY17LockOutage@usace.army.mil with your full name, organization and phone number, so they can directly provide you with any new information or changes as they occur.

Walla Walla District is also planning a media day at Ice Harbor's lock to see the new lock gate machinery being lifted by crane into the gate towers. Right now, it looks like that activity will likely occur late next week – potentially, February 2, 2017. The date and time of this event will be set once the contractor verifies their shipping schedule. We will be emailing an event invitation to the Lock Outage Stakeholder group tomorrow with instructions on how to RSVP for future updates on this Walla Walla District event.

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 February 2 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. 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

Walla Walla District Public Affairs Office
(509) 527-7020
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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



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