

FY17 Columbia-Snake River Navigation Lock Extended Outage

Progress Update to Navigation Stakeholders

Information presented during conference call with stakeholders on February 2, 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 2, 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 2 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. 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). System commissioning, PLC programming and annual maintenance work continues. The strain gauges were reinstalled on the downstream gate. As work progresses, the downstream miter gate climbing inspection will be performed. The lock will then be watered up to tail-water and wet testing will be performed. Bonneville's NavLock 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 -- 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, the trunnion yokes and slider beams were installed, the gate was hoisted and lifted into its temporary position in the lock, work on the lock wall pour-back began, and the concrete machinery bases were formed and poured. On the downstream gate, the cathodic protection installation continued, drilling of the horizontal anchors continued, and all horizontal anchors were drilled to depth. The electrical subcontractor continued installing the new controls and the new power system was energized. Moving into next week, work on the upstream gate will include installing the thrust washers and gate machinery, and starting wire tensioning. On the downstream gate, the vertical anchors will be installed and grouted, and the fulcrums will be installed. 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 last time, weather has caused major impacts to our construction progress. There is additional poor weather in the forecast. We have been able to make progress at a fairly normal production rate, during the break in the weather this past week, 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 dewatered and a scaffold has been built on the gate for weld repairs. Cracked welds have been excavated and are in the process of being re-welded. While those repairs are being performed, we are inspecting the upstream gate wire ropes, end connections and associated equipment. 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. Pre-construction surveying activities have been completed. 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 by the end of this week. The contractor has installed jacking and shoring system for gudgeon repairs on the North leaf. Gudgeon pin removal is in progress and line-boring is scheduled to begin next week on the North leaf. All deteriorated timber fenders have been removed on both gate leaves. Installation of new bottom seals is scheduled to begin next week. McNary’s in-house maintenance crew continues scheduled maintenance activities and the replacement of 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. 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 shipped to site. Installation of the sheave, shafts, new bearings, and alignment of ring gear is in-progress. The South Tower sheave refurbishment is complete and is scheduled to be shipped back to the site by today. Installation of the sheave and shaft is scheduled to start February 2. 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 seven 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 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 seven days per week and continues to regain time lost from the winter weather impacts. The installation of the new control panels is approximately 90 percent complete, and initial commissioning of the panels is scheduled to begin on February 11. The installation of new equipment bases is in progress and will continue over the next week. Installation of the new water level

sensors is in progress and is scheduled for completion next week. Installation of new motors, gear boxes, and pinion gears is in progress in the South tower and will continue over the 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. 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. Painters are now on site setting up their scaffolding and containment for blasting and painting on the gates. Painting is scheduled to begin Monday. Work continues on the structural steel repairs to the skin plates and stiffeners, as well as the replacement of the pintle heel assemblies. The 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 10 days, however the contractor has begun working two, 12-hour shifts, and six days a week to recover the delays. 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 EVENTS: In order to ensure our stakeholders and the public are informed about our work and our progress, we conducted a media day in both districts. Commercial navigation stakeholders and elected officials were invited to join us on those days.

Portland District’s media day at The Dalles lock took place Tuesday, January 31, as the new upstream gate was placed by crane into its permanent position. Thank you to all who were able to attend. It was a pleasure meeting you in person.

Just this morning (February 2), Walla Walla District conducted its media day at Ice Harbor’s lock to see the new lock gate machinery being lifted by crane into the gate towers.

We will continue to provide regular updates on work in progress. Our next teleconference update is scheduled for February 9 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
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(509) 527-7020
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Sincerely,

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

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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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