

2016/2017 Columbia/Snake River System Extended Navlock Outage

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Project Manager

Portland District

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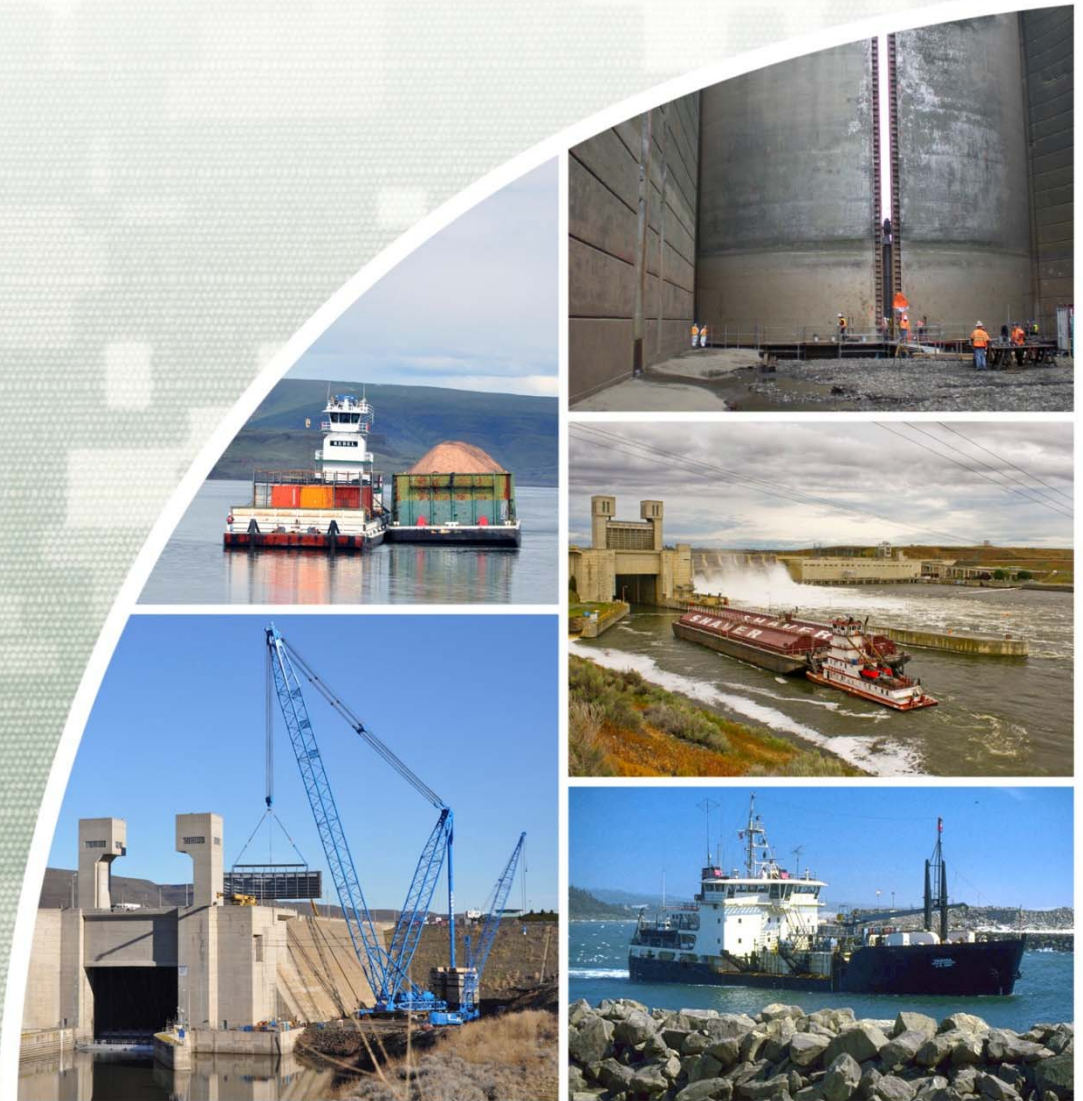
Acting Navigation Business Line Manager

Walla Walla District

June 27, 2016

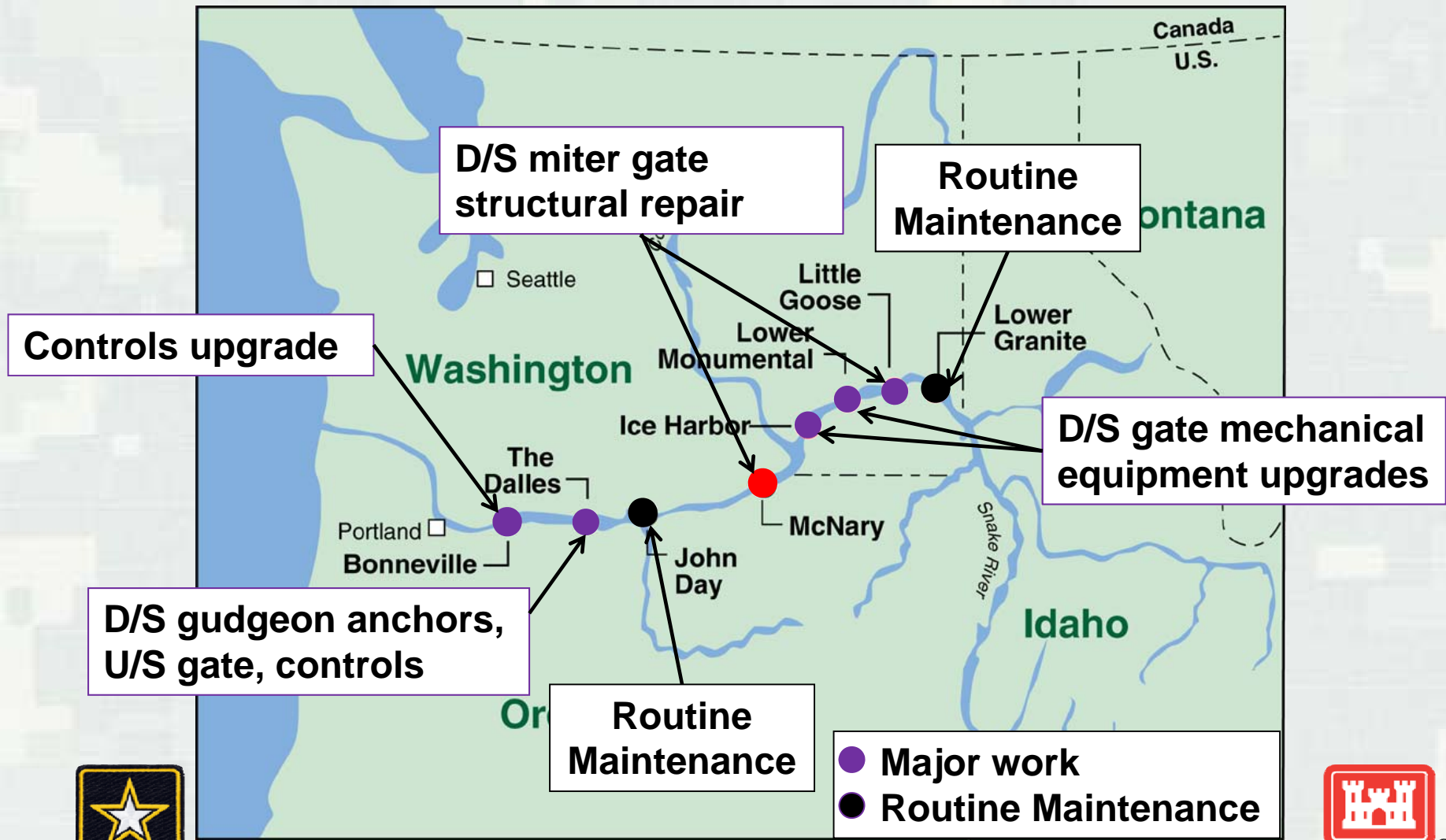


US Army Corps of Engineers
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CSRS Extended Lock Outage

(12 Dec 2016 – 20 Mar 2017)



Project Status

Operating Project	Requirement	Plans and Specs	Contract Award	Required Outage
Bonneville	Controls Upgrade	Complete	In-house Labor	First 8 weeks
The Dalles	Replace US Gate, DS Gate Gudgeon and Adjustment, Controls Upgrade	Complete	Awarded Feb 2016	14 weeks
McNary	Downstream Miter Gate Repairs	90%	Oct 2016	14 weeks
Ice Harbor	Downstream Gate Machinery Replacement	Complete	Awarded Jan 2016	14 weeks
Lower Monumental	Downstream Gate Machinery Replacement	Complete	Awarded Jan 2016	14 weeks
Little Goose	Downstream Miter Gate Repairs	Complete	Awarded May 2016	14 weeks



Portland District Extended Navlock Outage



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Bonneville Extended Lock Outage Plan

- Upgrade controls (both hardware and software)
- Perform inspections and preventative maintenance actions
- Outage to be first eight weeks
 - ▶ Dec. 12, 2016 - Feb. 9, 2017



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Bonneville FY17 Extended Lock Outage Current Status



Security-Sensitive
Not Publicly
Releasable

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Not Publicly
Releasable

- All work being completed by in-house staff
- Purchased Programmable Logic Controllers and components in FY15
- Performing prework – routing cables, installing electrical panels
- Starting software programming



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The Dalles FY17 Extended Lock Outage Plan

- Replace downstream gate gudgeon hardware
 - ▶ Options – Adjustments and Cathodic Protection
- Replace upstream gate
- Upgrade controls
 - ▶ Option - power distribution system (LCQ)



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Contract/Funding Plan

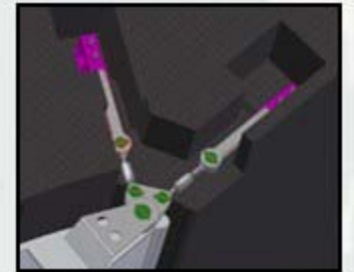
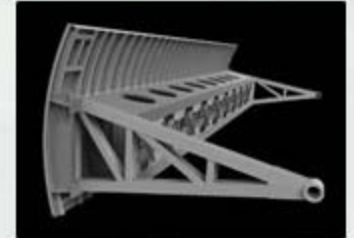
- Mandatory items
 - ▶ Upstream gate, downstream gudgeon – award late-January 2016 with FY16 funds
- Required Optional Items
 - ▶ Controls upgrade – award early October 2016 with FY17 funds
- Only if funding permits –
 - ▶ Additional D/S gate adjustments and cathodic protection
 - ▶ Power Distribution system (LCQ)



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Contract/Funding Actual

- Mandatory items – plan FY16 funds
 - ▶ U/S gate, D/S gudgeon – **Awarded 2-1-16**
 - Northbank Civil and Marine
 - ▶ Total contract cost w/options \$12M
- Required Optional Items - plan FY17 funds
 - ▶ Controls upgrade – **Awarded 4-1-16**
- Only if funding permits –
 - ▶ Power Distribution system (LCQ)
 - Supply - **Awarded 9-30-15** (\$700k)
 - ▷ Schneider Electric
 - Install - **Awarded 4-1-16**
 - ▶ Additional D/S gate adjustments and cathodic protection – **Awarded 5-27-16**



Security-Sensitive
Not Publicly
Releasable

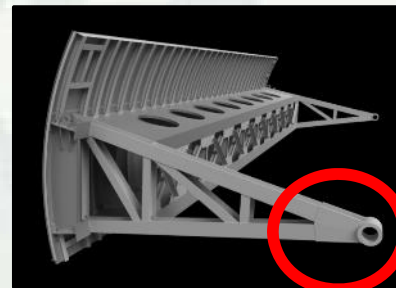
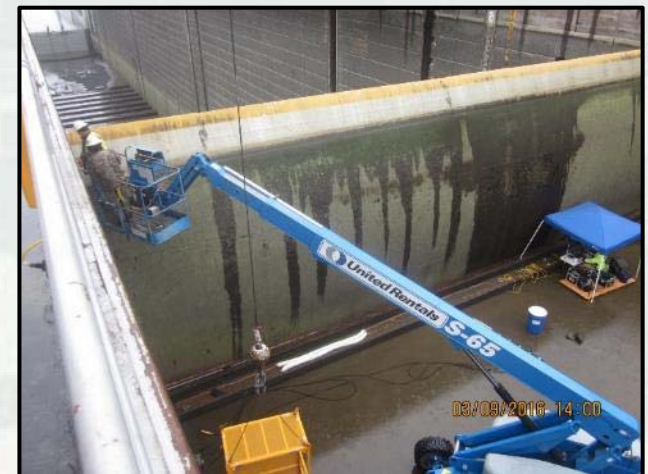


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The Dalles FY17 Extended Lock Outage

Current Status

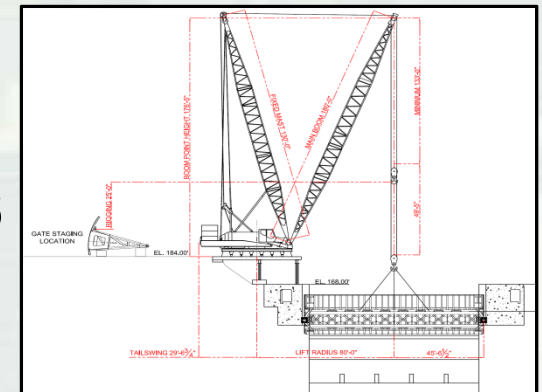
- Contractor performed site survey during 2016 lock outage
- Working through submittal process
- Contractor has begun fabrication
 - ▶ U/S gate
 - ▶ Electrical panels
- Plan to start installing power distribution equipment August 2016
 - ▶ Will be used in-place of temporary power during extended outage
 - ▶ Minimizes work/risk during extended outage



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Construction Schedule Highlights

- Steel fabrication (U/S gate and D/S gudgeon)
 - ▶ Started June 13, 2016
 - ▶ Complete by early December 2016
 - ▶ Shipment on site by early December 2016
 - Prior to start of lock outage
- On-site work
 - ▶ Start electrical on-site installation early August 2016
 - ▶ Start crane set-up late-October 2016
 - ▶ Tentative U/S gate removal late-December 2016
 - ▶ Tentative U/S gate placement mid-January 2017
- Outage scheduled Dec. 12, 2016, 6 a.m. through March 20, 2017, 11:59 p.m.

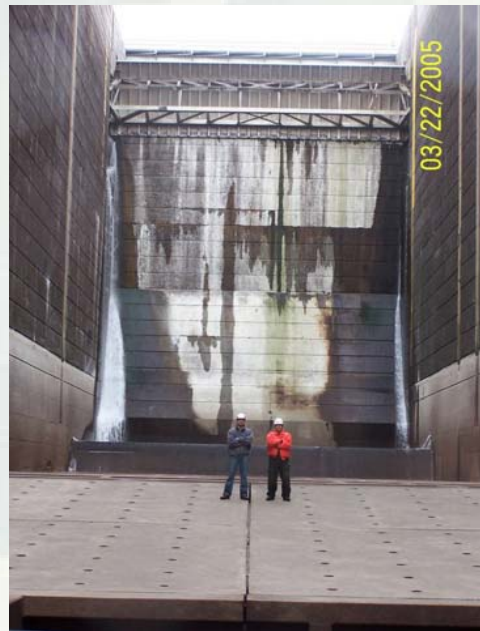
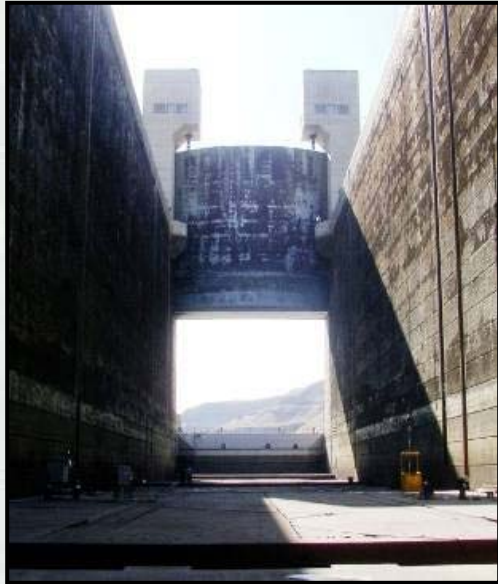


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Walla Walla District Extended Navlock Outage



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McNary Downstream Miter Gate Repairs

■ Scope:

- ▶ Structural crack repairs
- ▶ Gudgeon line boring and pin replacement
- ▶ Replacement of bottom seal
- ▶ Replacement of timber fenders



■ Status:

- ▶ Design currently 90% complete
- ▶ Contract Award funds scheduled for receipt October 2016
- ▶ Pre-Bid site visit scheduled for September 2016



Ice Harbor Downstream Gate Machinery Replacement

- **Scope:** Upgrade the downstream lift gate machinery to include:
 - ▶ Replace machinery and controls
 - ▶ Replace the bull gear ring
- **Status:**
 - ▶ Construction contract awarded to Knight Construction
 - ▶ Gearboxes on site
 - ▶ Schedule continues on track



Lower Monumental Downstream Gate Machinery Replacement

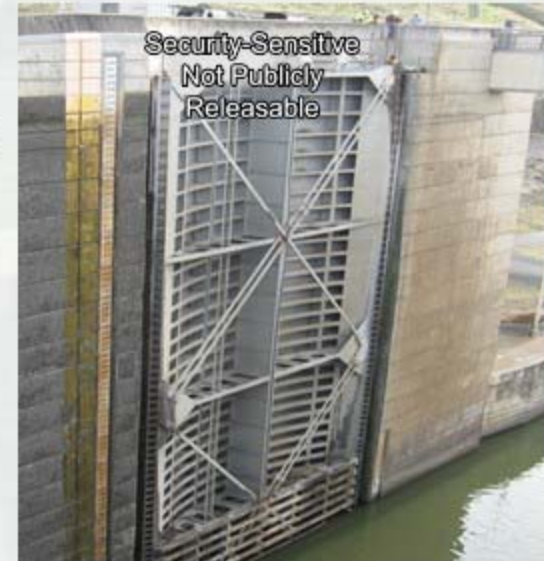
- Scope: Upgrade the downstream lift gate machinery to include:
 - ▶ Replace machinery and controls
 - ▶ Repair the sheave
- Status:
 - ▶ Construction contract awarded to Knight Construction
 - ▶ Gearboxes on site
 - ▶ Schedule continues on track



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Little Goose Downstream Gate Repairs

- **Scope:** Conduct critical structural repairs to the downstream miter gate
 - ▶ Gate assembly repairs
 - ▶ Gudgeon and pintle replacement
 - ▶ Quoin and miter seal repairs
- **Status:**
 - ▶ Contract awarded to Dix Corporation
 - ▶ Pintles and gudgeon on site
 - ▶ Schedule continues on track



Upon Completion of the 2017 Outage

- Evaluate conditions found, work performed and determine future efforts for sustained system reliability.
 - ▶ Continue risk based systems approach
- Continue annual maintenance outages
- Plan for future extended outages
 - ▶ Strategy is every 5-7 years
 - ▶ Planned outage better than unplanned



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Regional Coordination/Outreach

Keeping Stakeholders Informed

Joint NWP/NWW effort

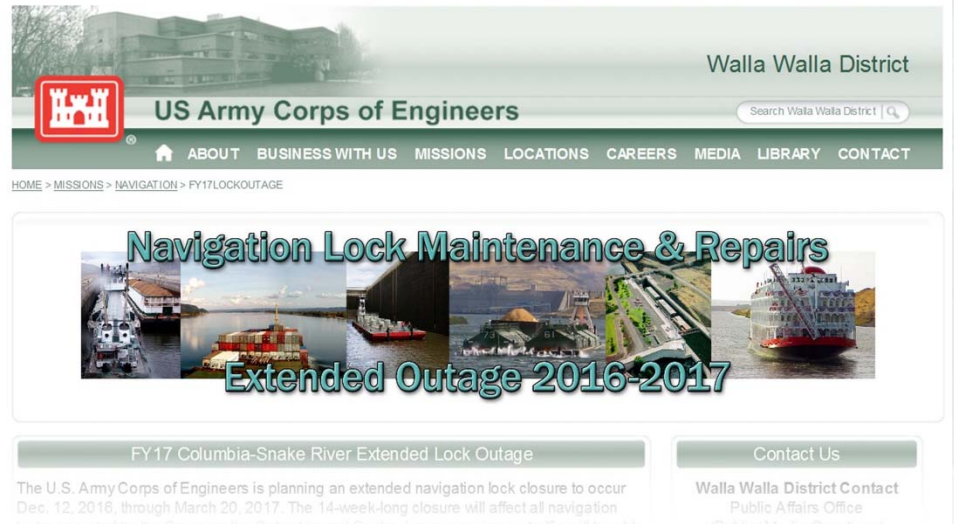
- Webpage
- eMail
- Teleconferences
- Special Events
- Stakeholder Updates
- News Releases
- Fact Sheets



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Webpage
General Information
News Releases
Updates
Contacts

<http://www.nww.usace.army.mil/Missions/Navigation/FY17LockOutage.aspx>



eMail
Stakeholder Updates
Special Event
Announcements

FY17LockOutage@usace.army.mil

 **Sign Me Up!**
for FY17 Extended Navigation Lock Outage Updates
 fill out and leave card in Corps-labeled box **OR** email via smart phone

Name

Organization

Email Address




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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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Questions?

FY17LockOutage@usace.army.mil



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