

2017 EXTENDED LOCK MAINTENANCE CLOSURE ON THE COLUMBIA – SNAKE RIVER WATERWAY

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Inland Waterways Users Board
Meeting No. 84
19 July 2017



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2017 EXTENDED LOCK CLOSURE COLUMBIA – SNAKE RIVER

465 miles inland from Astoria, OR, to Lewiston, ID
By weight: 64% Export; 10% Import; 26% Internal

Top Exports: wheat, oilseeds (e.g., soybean, flaxseed); forest products, corn, other chemicals and related products

Top Imports: iron and steel, manufactured equipment, building cement and concrete

Top Internal: wheat, aggregate, forest products, distillate, residual & other fuel oils; lube oil & grease



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Average Annual Commodities Movements 2011-2015

Columbia-Snake 57 Million Tons

36.6 Million Tons Export

14.6 Million Tons Imports

14.7 Million Tons – Internal, Coastwise

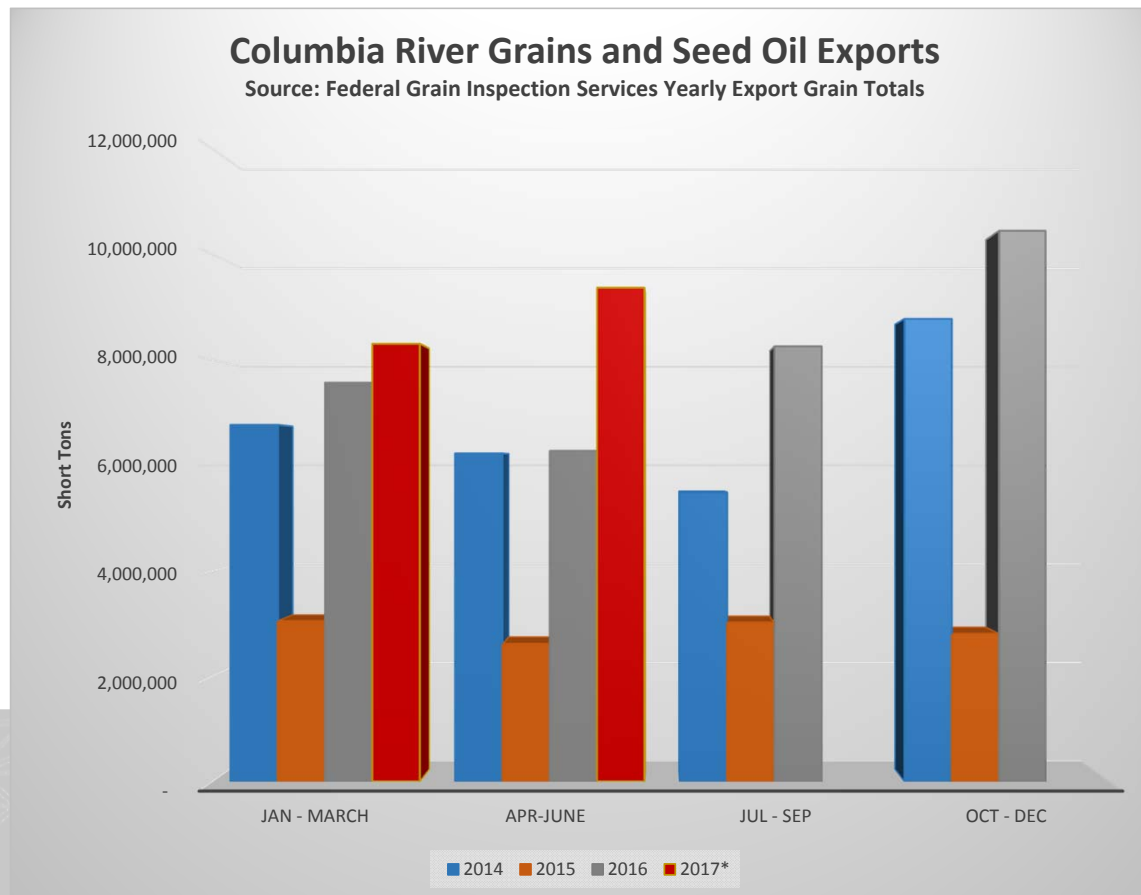
Data Source: Waterborne Commerce Statistics



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2017 is shaping up to be a good year for grain exports



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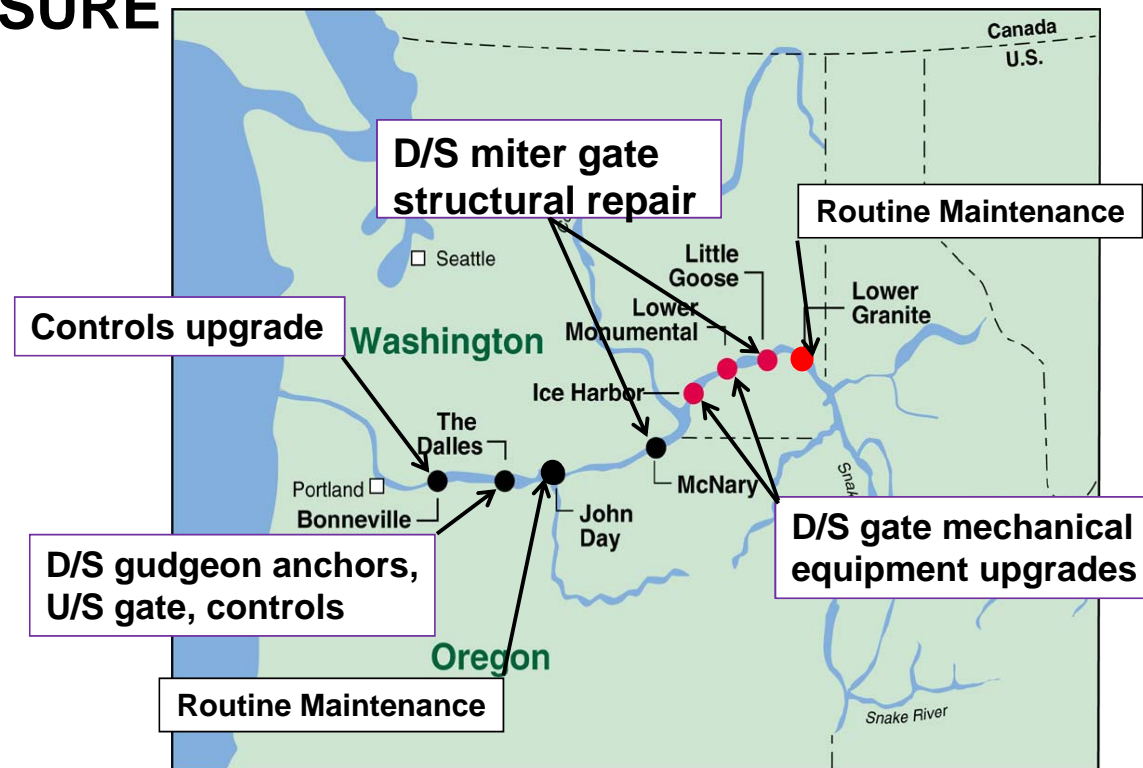
2017 EXTENDED LOCK CLOSURE COLUMBIA – SNAKE RIVER

Overview:

Original 14 week scheduled system closure
Dec 12, 2016 – March 20, 2017

Added 2 Projects since 2014 IWUB Briefing

Bonneville Lock Controls Upgrades
McNary Downstream Lock Gate repairs



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Bonneville Lock

- Controls System Upgrades – In-house design and labor Programmable Logic monitoring equipment and components install and software programming



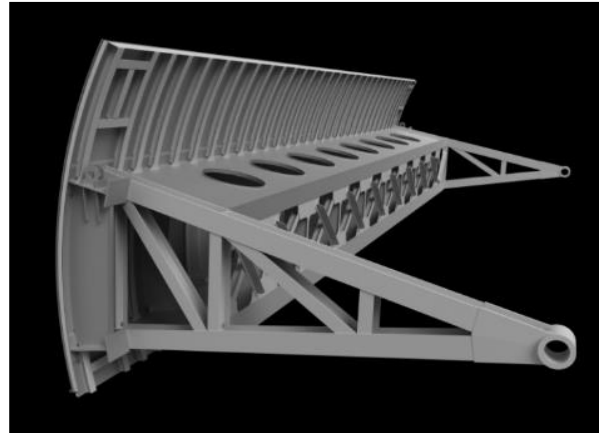
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The Dalles Locks:

- Fabricate and Replace Upstream Gate
- Replace the Downstream Gate Gudgeon hardware
- Upgrade the Operator Interface controls and electrical power distribution system



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McNary Locks:

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



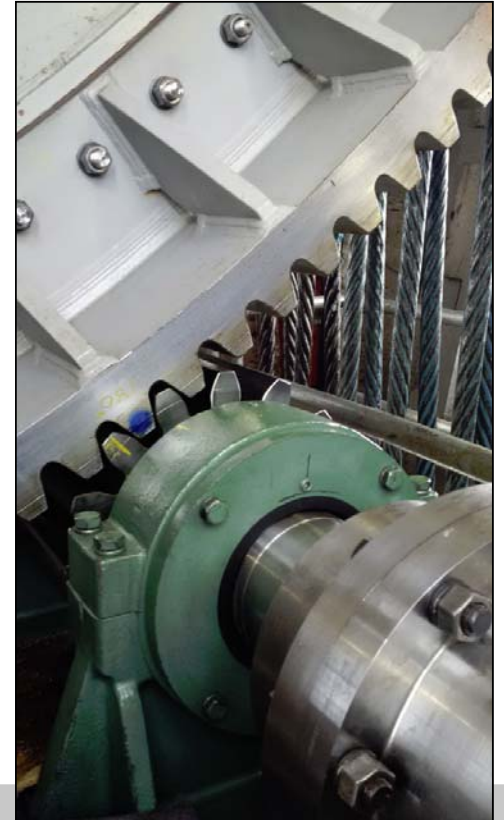
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Ice Harbor Locks Upgrades:

- Replace machinery and controls
- Replace the bull gear ring



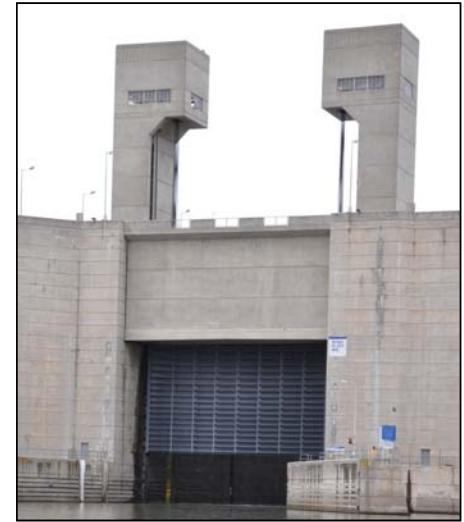
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Lower Monumental Lock:

- Replace machinery and controls
- Repair the sheave



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Little Goose Lock:

Structural repairs to the downstream
miter gate :

- Gudgeon and pintle replacement
- Quoin and miter seal repairs



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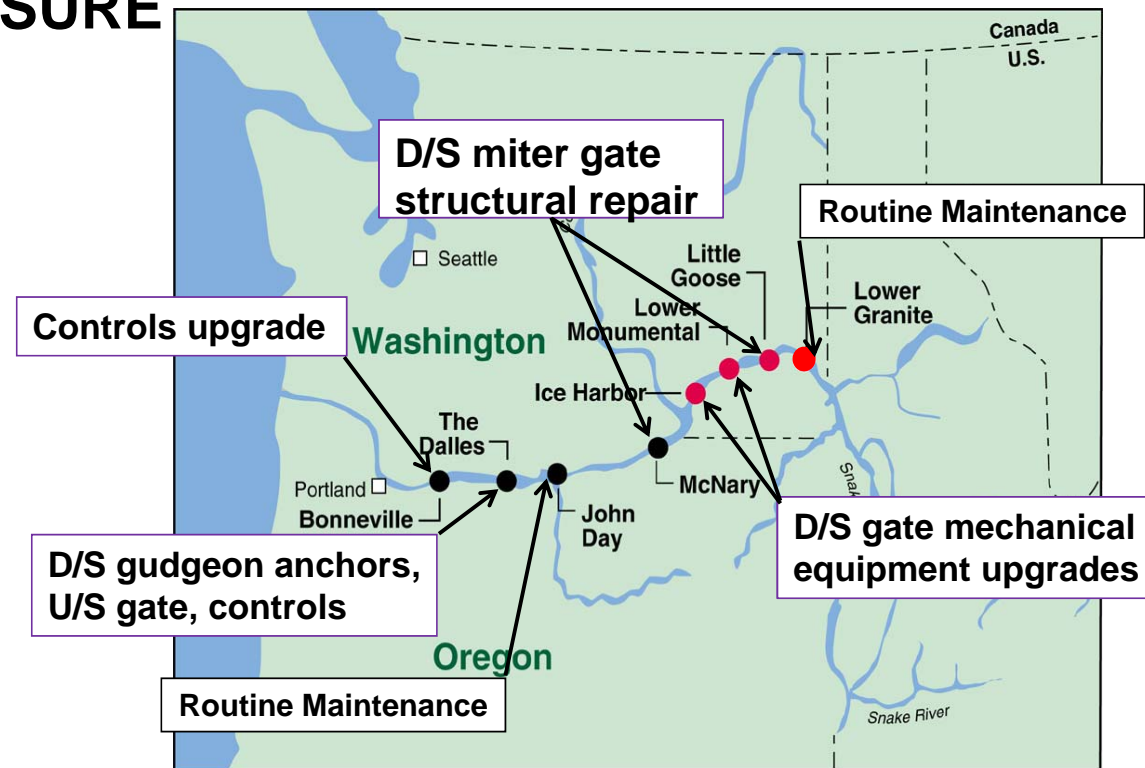
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Overview:

Original 14 week scheduled closure:
December 12, 2016 – March 20, 2017

Actual Reopening Dates:

- Bonneville - February 8th
- The Dalles to McNary - March 20th
- Ice Harbor - March 23rd
- Little Goose - April 10th



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Weather Challenges:

The Winter of 2017 was among worst in Decades.

Instances of contract weather allowance was used 3 weeks into the outage.

Work progress aggressively communicated to all stakeholders.



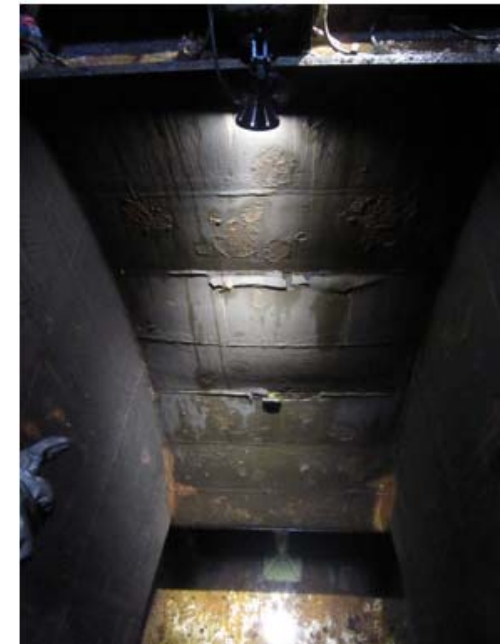
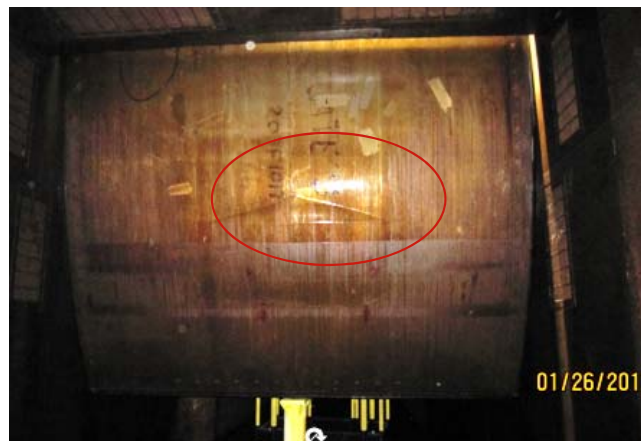
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Weather resulted in damage during work:

At McNary Locks, tainter valves damaged by ice formation – interim repairs made and replacements pending



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Little Goose Lock Repair:

Weather, onsite work efficiency, and unforeseen damage delayed return to service.

Contract was terminated and a new contract awarded on March 10, 2017 to Knight Construction. Work deficiency discovered, adding time to the schedule.

Locks returned to service on April 10th.



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Things that went well:

Internal USACE alignment

- Identify risk reduction priorities
- Good Scopes of Work
- Budget Support at the regional and national Level

Engineering and Project Management

- Starting Early
- Realistic schedules
- Tight design specifications
- Early contract awards for prefabrication and staging



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Another Good Thing: Stakeholder Support:

Communication to stakeholders began in 2014 at multiple forums (e.g. Pacific Northwest Waterways Association)

Initial confirmation in May 2016 after FY 2016 President's Budget Release

More frequent communication contracts established

Stakeholder Visitation Days.



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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Briefing the Customers & Getting Feedback:

Learning, Improving, Sharing Lessons and
Preserving Institutional Knowledge

May 2017 – AAR with Stakeholders

Request for Information

<p>Please download this form, provide input and email to Sheryl.A.Carruba@usace.army.mil</p> <p>2016-2017 Columbia-Snake River Extended Lock Outage Stakeholder After-Action Review</p> <p>US Army Corps of Engineers U.S. Army Corps of Engineers Portland and Walla Walla Districts</p>  <p>SUMMARY</p> <p>The U.S. Army Corps of Engineers' Portland and Walla Walla districts recently completed their second coordinated extended outage of all Corps-managed navigation locks within the Columbia-Snake River System to perform major repairs, maintenance and improvements.</p> <p>The 14-week extended outage took place from Dec. 12 through March 20 and finished early or on-schedule for six of the eight impacted locks and dams despite an extraordinarily cold and snowy winter.</p> <p>While two-week closures for routine maintenance are conducted every year, additional extended outages are needed on occasion to maintain the long-term safety and viability of the locks, several of which have served the region for more than 60 years. Extended outages provide the opportunity to perform major non-outage repairs and improvements that cannot be completed within the shorter closures.</p> <p>PURPOSE</p> <p>The following questions are intended to aid the Corps in capturing the lessons learned from the challenges and successes of the 2016-2017 Columbia-Snake River System Extended Outage with the goal of improving future performance.</p> <p>Your honest assessment of our performance throughout the lead-up to and duration of the extended outage will help us to explore how we can sustain and improve future activities so that we can perform necessary major repairs and improvements safely while best limiting impacts to stakeholders.</p> <p>1</p>	<p>2016-2017 Columbia-Snake River Extended Lock Outage Stakeholder After-Action Review U.S. Army Corps of Engineers Portland and Walla Walla Districts</p> <p>QUESTIONS</p> <p>Industry: _____ Name (Optional): _____</p> <p>1. How did the 2016-2017 Columbia-Snake River Extended Outage lock closures impact your business or organization?</p> <p>2. How were you able to plan and help avoid or minimize impacts and adjust for the extended outage?</p> <p>3. The attached first-order costs were generated based on the historic value of tonnage moving through the locks December through March. Please comment on these estimates. What second-order costs (in dollar amount or percentage) would you attribute to a December through March extended outage, e.g., lost wages, sales and opportunities?</p> <p>2</p>	<p>9 10/16/17</p>	<p>10/16/17</p>
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EXTERNAL COMMENTS

System Reliability is Important for Commerce:

- Clearly understand risk and reliability decisions
- Supported planned shutdown.
- But OUCH!! It really does effect the Bottom Line



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EXTERNAL COMMENTS

Reported Impacts:

Some wheat and grain shipments went early and at reduced profit (shipping before a market price settled)

Lost revenue, contracts, marketability

Layoffs, reductions in dividend distributions to shareholders

Permanent loss of market in the petroleum industry to rail alternatives

Tourism excursion trips rerouted, alternate transportation between stops (Snake River delays)



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EXTERNAL COMMENTS

Scheduling of extended multi-project outages – Ideas, questions, reflections:

- Resources: Does system-wide effort tax the regional Construction resources and increase risk?
- Is 14 weeks too long? Should the Corps apply more resources (\$\$) to accelerate schedules and reduce impacts? Or should the work drive the schedule?
- Could slightly longer annual maintenance closures reduce the need for extended closures?

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EXTERNAL COMMENTS

Scheduling extended multi-project outages – Ideas, questions, reflections:

- Winter Construction: Does work period increase risk of construction delays, to safety and add to project risk?
- Should contractors be better vetted for capability?
- Are Tourism and Excursion vessels properly accounted for in the Lock Performance Monitoring System (LPMS) data?



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Final Thoughts

Communication is Two Ways

The Corps is obligated to communicate needs assessments, risks, problems, and scheduled maintenance... and to understand and consider stakeholder concerns and impacts of extended system wide closures.

ESSAYONS!



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