

COLUMBIA SNAKE RIVER SYSTEM INVESTMENTS & ACCOMPLISHMENTS

Every year, the U.S. Army Corps of Engineers' Portland and Walla Walla Districts systematically evaluate the inland navigation infrastructure of the Columbia Snake River System and target the highest priority projects to repair or to replace. Significant projects, like installation of new lock gates and other large components, can take years to plan and many weeks to execute in the field. Extended lock closures are sometimes necessary to complete these challenging repair and replacement projects, which help maintain the safety, efficiency and reliability of this nationally significant waterway.

During the winter of 2010-2011, the locks were closed for 15 weeks. The Corps accomplished the first extended closure of its kind on our river system, installing new lock gates at The Dalles, John Day, and Lower Monumental dams. These three navigation lock gates are among the largest in the nation, with a combined total of over 4.0 million pounds of new steel fabrication.

In the winter of 2016-2017, the locks were closed for 14 weeks. This closure concentrated on major repairs and replacements at six of the eight inland locks. Additionally, the system necessitates an annual 2-3 week closure every March for routine inspections, maintenance, and targeted minor repairs.

In the winter of 2024, the locks were closed for 11 weeks to replace major components at McNary, Lower Monumental, Little Goose, Lower Granite, and John Day dams.

The Corps is anticipating a 3-week closure in 2025- and 5-week closures in 2026 and 2027 to complete some additional maintenance work. Another significant extended outage is anticipated in 2030 to replace gates at McNary and Bonneville dams.

The Columbia Snake River System is a set of eight dams and each dam has one lock, which must be operational for the river system to function. Advance planning coordinated scheduling of construction projects, and clear, timely communications efforts with stakeholders have led to a series of successful lock repair and maintenance achievements for the Northwest region, led by the Portland and Walla Walla Districts. Summary of work during these closures from the lower Columbia River moving upstream:

- **Bonneville** New lock controls system installed (2017)
- **The Dalles** Upstream gate replaced, new downstream gate top hinge components (gudgeon arms, downstream gate corrosion protection installed, downstream gate adjustments, lock control and power distribution system upgrades (2017)
- **John Day** Downstream lift gate, friction drums and four tainter valves replaced (2011)
- **McNary** Navigation derrick crane, gudgeon anchor, and power and controls replacement (2024); downstream miter gate crack repairs, gudgeon replacement and tainter valve repairs (2017)
- **Ice Harbor** New downstream gate operating machinery installed (2017)
- **Lower Monumental** New power and control component replacement (2024); new downstream gate mechanical gear installed (2017).
- **Little Goose** Navigation culvert concrete repairs (2023); downstream miter gate hinge components replaced (including gudgeon arms), quoin block repairs, replacement of timber fences and installation of safety handrails on gate leaves (2017)
- **Lower Granite** Floating guide wall timber replacement (2024); upstream gate wire rope and damaged timbers replacement, fill/drain valve hydraulic cylinder replacement (2017)

Columbia and Snake Rivers deliver value to the region and the nation

The Columbia Snake River System is a key U.S. trade gateway, moving over 8.6 million metric tons of cargo annually via barge and feeding into the deep draft lower Columbia River, which handled 49.7 million metric tons of cargo worth \$31.2 billion in 2022. It's the leading wheat export gateway, second for soy and corn. The system's inland and deep draft sections work together, linking U.S. growers and manufacturers with global markets. Recent repairs to the inland locks ensure this vital barging network remains reliable and valuable.

