There is no off-season at the Soo Locks

The 1,000-foot-long freighter Burns Harbor's early morning passage on January 15 ended the 2019 navigation season and gave crews a 12-hour head start on a long list of lock maintenance tasks planned for winter 2020.

Replacing sills

Each gate in the lock has a sill at its lower end. When closed, the gates rest against this concrete structure. This year crews used 80 yards of concrete to replace damaged portions of the sills for gates one and three. Contractors removed large sections and U.S. Army Corps of Engineers workers built forms, installed rebar then placed and finished the concrete. Heated, temporary structures over the sills allowed the concrete to cure safely despite freezing conditions outside.

Deep cleaning the Poe Lock

Several lock and dam operators spent the winter clearing debris from the lock. Working above and below the lock floor, they used a high-powered vacuum, shovels and hard labor to remove more than 300 tons of rocks, mud and debris carried in by the suction of freighters' propellers.

Installing buffers

Oak timbers line the walls of the approaches serving as buffers between the piers and the hulls of boats that enter. Replacing these fenders is a non-stop task on the miles of pier walls at the Soo Locks. This winter lock and dam operators removed and replaced fenders on about 1000 feet of the pier.

Repairing the culvert

On each side of the lock monolith structure, water moves through culverts roughly 14 feet high and 12 feet wide. This past winter, workers repaired a section of damaged wall in the north culvert. After removing loose material, workers anchored a steel form to the stable concrete. They next placed concrete by hand, five gallons at a time, into the space to repair the culvert wall.

An early finish

Relatively mild weather, careful planning and teamwork kept things moving along during the maintenance season. Crews wrapped up all of their planned tasks ahead of schedule and rewatered the lock well before the start of the 2020 navigation season.