

Bear River Migratory Bird Refuge Water Control Structure Project

Frequently Asked Questions

Q: Why is the Refuge replacing the water control structure?

The Refuge plans to repair an existing water control structure on a unit of the Refuge (Unit 2D - see map) because the existing water control structure is outdated. The existing structure will be changed to improve water management capability and increase safety of operation. The existing structure uses multiple bays with stop logs to manage the unit's water level. The existing stoplog support walls will be removed, and new concrete walls to support overshot gates will be constructed. New walkways and handrails will also be installed on the reconfigured structure. The new structure design will allow multiple gates to be lowered, so water will flow over the gates, while managing the water level in the unit. The new design has been used on other structures of the Refuge, and has proven to be more effective, flexible, and most importantly, safer to operate. This project will be completed by early September 2018.

Q: Why does the Refuge need to drain the entire unit?

The area of the Refuge (Unit 2D) will need to be temporarily drained in order to install a new water control structure and complete planned habitat management work.

For the last 26 years, due to high water levels, there has been a seasonal presence of surface water in the summer. This presence of surface water, which in some areas is permanent, has created conditions for a highly invasive plant, Phragmites, to thrive. This invasive plant causes a variety of issues for wildlife and habitat, including: loss of open water habitat and the exclusion of native vegetation. Waterfowl and shorebirds utilize open water habitat and native emergent marshes throughout the spring, summer, and fall. Native habitat conditions provide a range of food sources, including: aquatic invertebrates, seeds, and submerged aquatic vegetation.

Keeping the unit dry for construction will also provide an opportunity to dry up the Phragmites stands so the Refuge can attempt to conduct a prescribed burn in the fall to remove old standing vegetation (Phragmites). The Refuge also plans work with local ranchers to graze the unit during the summer. Grazing is another management tool to help stress the invasive plants. Cattle consume the young, green part of the plants causing more energy from the plants to be expended for growth. Cattle grazing can also help prevent seed production to further slow invasive plant expansion.

This unit also has another highly invasive species: common carp. This large, non-native fish species aggressively competes with native aquatic fish and plant species. Draining the unit will reduce the number of invasive carp in the unit, in addition to combating invasive Phragmites plants.

Q: How will draining the unit impact native aquatic species?

Native aquatic species have adapted to wet and dry cycles of wetlands. Aquatic plants have a seed bank to establish plants once water returns to the wetlands. The proposed management efforts to decrease the non-native Phragmites will also provide an opportunity for native plants to re-establish. Aquatic invertebrates also will leave egg deposits in the mud substrate for hatching when water returns to the wetland.

Q: How long will the unit be drained?

The Refuge plans to replace the existing water control structure starting in July 2018, with completion projected for early October. If it meets management objectives and provides for Phragmites control, water may be restored to the unit by mid-October.

Q: Will the Refuge drain this unit in the future or is this a one-time project?

This is only a temporary measure for this year. However, habitat management activities will require the unit to be drained from time to time to address invasive plants and animals, and to maintain a healthy wetland ecology.

Q: How will hunting opportunities be impacted by this project?

In the short term, it is possible that waterfowl numbers will temporarily be reduced at the unit. In the long term, habitat management efforts will create suitable habitat that will attract more waterfowl, as removal of invasive grasses will allow for a healthier natural environment that benefits native plants and wildlife. There may be a reduction in some waterfowl species that prefer deeper water, such as diving ducks.

The Refuge has additionally partnered with Delta Waterfowl to increase hunter access into Unit 2D and 9. Delta Waterfowl has secured funding to replace two boat ramps, one of which is located in the southeast corner of Unit 2D. The second boat ramp to be replaced is located in Unit 9, near the site for the water control structure being replaced in Unit 2D. Funding from Delta Waterfowl will be used to purchase materials; Delta Waterfowl volunteers and Refuge staff will complete site preparation and the concrete pour for this project. This work is scheduled to be completed in 2018 while the 2D unit is drained to allow for the repair of the water control structure, grazing of Phragmites, and potential prescribed burn.