Questions and Answers – Wapato Lake Wetland

Where is Wapato Lake?

Wapato Lake is located in the Tualatin River drainage of northwest Oregon, near the town of Gaston, about a 45-minute drive from Portland.

What is the Fish and Wildlife Service’s interest in Wapato Lake?

Wapato Lake is a seasonal lake and wetland that has been highly altered over its natural drainage and flow. Nevertheless, the lakebed and much of the adjacent area remain undeveloped. It provides excellent habitat for a large number of migratory birds, especially wintering tundra swans. In 1992, the U.S. Fish and Wildlife Service (Service) established the Tualatin River National Wildlife Refuge near the town of Sherwood. In 2007 the Wapato Lake Unit of the Tualatin River National Wildlife Refuge was established. Since that time, the Service has been purchasing land from willing sellers within the refuge boundary. As of late 2010, the Service has purchased the majority of the lakebed.

What are the Fish and Wildlife Service’s plans for managing Wapato Lake?

The Service is just beginning to develop a 15-year Comprehensive Conservation Plan (CCP) for Tualatin River National Wildlife Refuge, including the Wapato Lake Unit. While formal management alternatives for the plan have not yet been generated, restoration of Wapato Lake will be given serious consideration. Other public agencies support restoration of the lakebed to a system that is more representative of its natural and historical ecological functions. Such restoration would likely provide benefits to migratory birds, endangered fish species and other wildlife, while also enhancing protection of the area’s water quality.

What is the likely timeframe for implementing management options at Wapato Lake?

The timeframe depends on two things: the Service’s acquisition of the remaining portions of Wapato Lake and the completion of the 15-year CCP. Land acquisitions within the lakebed may be completed by 2012, although additional acquisitions within the refuge boundary will be ongoing. The CCP is scheduled to be completed by the end of 2012. Depending on funding, implementation of the selected plan should begin between 2013 and 2015.

What is the Fish and Wildlife Service doing in the interim?

During the planning process and until a management alternative is selected, the Service is largely continuing with existing management at Wapato Lake. Current management includes working with local partnerships to drain the lake in the spring and engaging in a cooperative dry-land farming program in the summer. During the rainy season in fall and winter the lake fills with runoff and rain water and provides excellent migratory waterfowl and shorebird habitat. In the spring, water is actively pumped out of the lakebed, and the drain-farm-fill cycle continues.
What are the current concerns regarding Wapato Lake management and water quality?

Since the 1930s, water in the lake has been drained to the Tualatin River in the early spring, and the Wapato Lake bottomlands have been farmed throughout the summer. Draining the lakebed in the spring is critical because the water temperature is still relatively cool. If the water is not removed before temperatures rise in the summer, then algae begin to bloom in the stagnant water. If the warmer, algae-laden water is pumped from the lakebed into the Tualatin River, it can pose water quality concerns downstream. This was the case in 2008 when breaks in aging lakebed levees delayed drainage of the lake until June and July. After river levels receded and the levee breaks were repaired, summer pumping to de-water the lake released stagnant waters into the Tualatin River. This unfortunate scenario caused concerns for potential impacts to downstream users who depend upon the river for their domestic water supply. In 2009 a similar threat existed when the aging primary pump for draining the lake failed. Several portable pumps were used to drain the lake at considerable expense.

Whose responsibility is it to maintain Wapato Lake’s aging levees, pump system, and canals?

Operation and maintenance of the Wapato Lake water management system is the responsibility of the Wapato Improvement District (WID). WID was formed under state and county laws to manage local irrigation and related functions within the Wapato Lake area. As a landowner within the WID boundary, the Service is a member of the WID. At this time, the Service owns more than 75% of the land within the WID boundary. All remaining WID members are assessed fees to maintain the water management system, although, it remains unclear whether non-Service members will need irrigation water to farm at this time.

While the Service does not hold a position on the WID Board, as the majority landowner in the district, the Service does recognize that it plays a significant role in Wapato Lake water management.

Will the Wapato Improvement District continue to function as a corporation?

The by-laws allow for dissolution of the WID if landowners controlling 75% or more of the acreage within the district’s boundary elect to terminate the WID’s operations. The WID has not yet undergone formal dissolution proceedings and it is still operational on paper. The Service has accepted an increased responsibility to manage winter and early spring Wapato Lake water levels in the near term until decisions are reached, through the CCP process, about how the lake will be managed in the future.

What will happen to the Wapato Lake water management infrastructure?

When the Service purchased farmlands within the WID boundary, it did not acquire title to land and physical property owned and managed by the WID. If the District is dissolved, it is our understanding that the WID assets may be transferred to Washington and Yamhill counties or to the Tualatin Valley Irrigation District (TVID). It is also possible for the pumps, levees, etc. to be donated or sold to the Service. The Service cannot spend Federal appropriations on facilities it does not own. Subject to funding availability, refuge operational and maintenance monies could be used on the WID infrastructure one year following its transfer to the Service.
What is the Fish and Wildlife Service doing to address water management issues now?

The Service is working with other agencies and organizations to respond to existing concerns and develop contingency plans for the future. The Service is working with the WID on water management transition issues, as well as with Clean Water Services (CWS) and Oregon Department of Environmental Quality (DEQ) on pumping and dike issues, including water quality concerns. The Service has also completed repairs on the primary pump.

Will the primary electric pump be functional for 2011?

The primary pump, which failed in 2009, has been repaired. The Service intends to make it available for use to drain lake water in winter and spring of 2011. The DEQ, on behalf of WID, sets guidelines for the types of pumps, as well as approvals and restrictions for their season of use. These guidelines are described in the Wapato Lake Water Quality Management Plan for Wapato Improvement District. It is the intention of the Service to follow these guidelines when the repaired equipment is in place and fully functioning. Contingencies for responding to potential failure of the primary pump and/or the levee systems will be developed in cooperation with DEQ, CWS, and TVID.

What is the interim prognosis for Wapato Lake dike maintenance until new management actions are selected and implemented?

The Wapato Lake dike system is extremely old. It may continue to function for a few more years and could just as likely suffer significant failure in the near future. CWS completed a cursory assessment to determine the projected useable life of the existing system (May, 2010). The assessment report indicated that fully retrofitting the aged system would require a significant investment of resources. It also noted that past problem areas are not in need of immediate attention at this time because the interim repairs and/or actions are temporarily sufficient. Some repair actions have already been completed by the Service to support the interim plan for lake water management. Decisions resulting from the CCP process will direct how future resources should be used relative to long-term plans for the levees.

How has irrigation water been used in the past, and how might it be applied in the interim until decisions are made about the levee system at Wapato Lake?

TVID assesses their patrons for the services of providing infrastructure and management to deliver irrigation water for farming. Through an agreement with the WID, TVID is allowed to use the Wapato Lake levee system to deliver water to members of the WID. Over the years this agreement has provided mutual benefits to both parties of the agreement. As one of the three WID members, the Service is assessed and continues to pay fees to TVID for water delivery services. However, the Service chooses to dry-land farm under several cooperative farming agreements. As a result, benefits may be realized by others when water that goes unused by the Service can be put to irrigation use by downstream users. If the Service acquires all the land within the WID boundary and does not require irrigation water delivery, then the agreement with TVID for use of the levee system to deliver water to the WID members will be unnecessary.
Will the Fish and Wildlife Service continue delivering irrigation water to farmers on behalf of the Tualatin Valley Irrigation District?

It is unlikely that the CCP’s selected management plan for the Wapato Lake Unit of the Tualatin River National Wildlife Refuge will include delivering irrigation water. Although the Service recognizes the importance of irrigation water to the farming community, the delivery of irrigation water is not part of the National Wildlife Refuge System’s mission or the official purposes for establishing the Tualatin River National Wildlife Refuge. Federal legislation mandates that first and foremost, the mission of the National Wildlife Refuge System is wildlife conservation. In addition, any other use of a national wildlife refuge must first be determined compatible with the purposes for establishing the refuge before it can be allowed. Regulations and policy establish specific guidance for making this determination. It is highly unlikely that delivering irrigation water to farmers could be determined compatible. The Service will continue to work with TVID to find alternative means of delivering irrigation water to local farms.