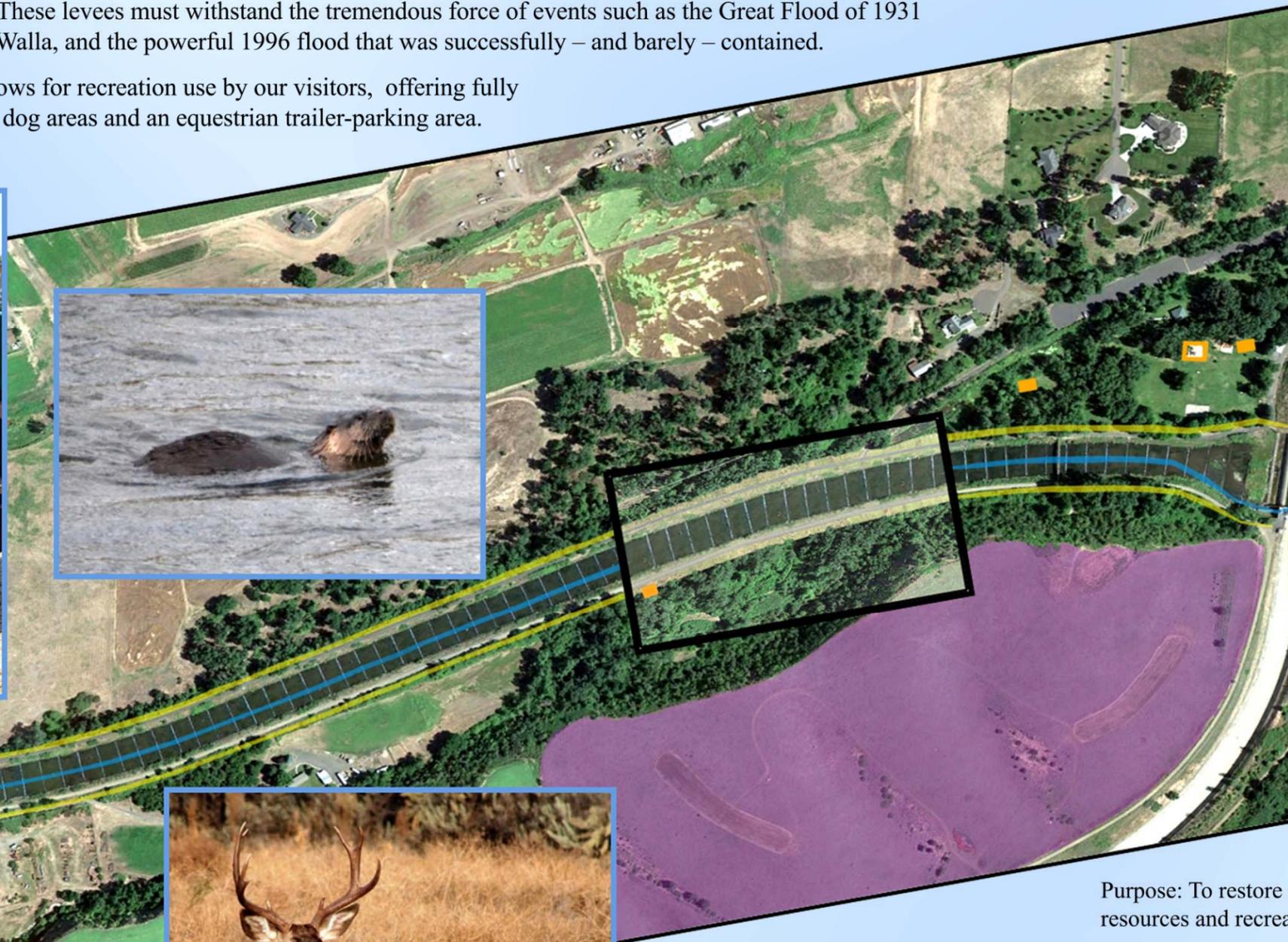


Safe and Sustainable for the Future

The Mill Creek Levee Vegetation Maintenance Project is designed to bring the federally managed portion of the Mill Creek levee system into compliance with Corps levee safety standards, so they can be sustained in that safe condition. Mill Creek Project's primary purpose is flood-risk management. Since 1942, the project has prevented approximately \$70 million in cumulative damages, with the added benefits of wildlife habitat and recreation.

U.S. Army Corps of Engineers staff are responsible for maintaining these levees and for ensuring they are up to the job of managing flood risk for the Walla Walla community. These levees must withstand the tremendous force of events such as the Great Flood of 1931 that destroyed downtown Walla Walla, and the powerful 1996 flood that was successfully – and barely – contained.

The levee system design also allows for recreation use by our visitors, offering fully accessible paved trails, off-leash dog areas and an equestrian trailer-parking area.



-  Natural Resource Management
 - Restore/Maintain Habitat*
-  Improved Fish Passage
 - Low-flow channel and redesigned fish ladders*
-  Potential Recreation Improvements
 - Shade shelters; restroom (sustainable design) and recreational water feature*
-  Levees in Compliance with Corps Standards
 - Potential for impermeable overbuilt sections for low vegetation plantings*
-  Levee maintenance End-State Concept

* Improvements to occur as funding becomes available.

Purpose: To restore and sustain levees to design criteria, while supporting both natural resources and recreational purposes.

Method: By removing the dense vegetation from the levee and replacing with native grasses.

Area: The Mill Creek channel and Rook's Park area provides a combination of flood-risk-management and recreation benefits. Annual visitation is about 200,000.



Mill Creek Levee Maintenance

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG.

The Mill Creek Flood Control Project was completed in 1942 and included levees along the improved Mill Creek channel to provide flood protection for the City of Walla Walla. Currently, the Mill Creek Project levees fail to comply with U.S. Army Corps of Engineers vegetation standards used to ensure reliability, resiliency and operability of levee, floodwall, and dam projects nationwide.

Non-compliant vegetation on levees blocks visibility for inspections, access for maintenance, hinders flood fighting, and adds uncertainty to structural performance and reliability, which increases risk. The inability to inspect, maintain or flood fight could contribute to a breach or delay emergency response.

Since 1975, the Corps has completed several actions at the project related to reservoir and levee seepage. In the mid-1980s, vegetation was removed from inside the creek channel, but not the landward side of the levees. Wind storms in 2008 and 2012 uprooted trees, causing damage to the levee cross section which required repairs to ensure levee integrity.

The Corps regularly inspects its levees to monitor their overall condition, identify deficiencies, verify that needed maintenance is taking place and provide information about the levees on which the public relies. Inspection information also contributes to risk assessments and supports levee accreditation decisions for the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA).

Corps levee vegetation standards require removal of woody vegetation from the levee crown, and to a distance of 15 feet from the levee toe on both sides of the levee or to the project right-of-way, whichever is closer. Roots growing into the cross section provide a path for water to flow through the levee, increasing the potential for seepage problems to occur, putting the integrity of the embankment at risk of failure.

This is about public safety – Life safety is paramount for the Corps’ operations. Not being able to access the levee for inspections and maintenance adds uncertainty about the levee’s structural performance and reliability in the event of a flood, which increases risk to the public.

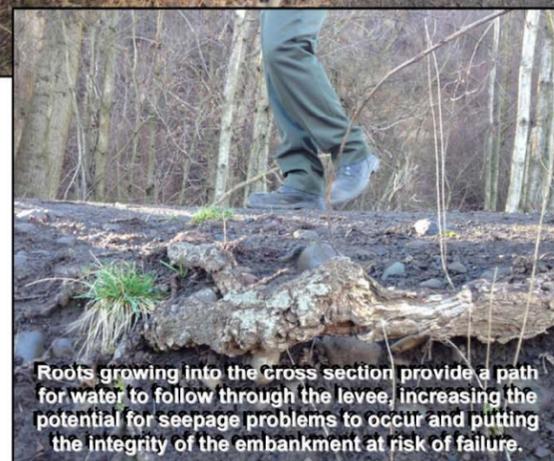
Right now, if we had to engage in a flood fight, we wouldn’t be able to see if problems were developing, much less take swift action to place sandbags or operate heavy equipment to construct reinforcements.

We are developing a plan to ensure our levees are properly maintained to perform as designed – Ensuring our levees meet required safety standards will be a multiple-year effort. The following tasks need to occur: the maintenance zone cleared, stumps removed, levee structure repaired and grasses planted.

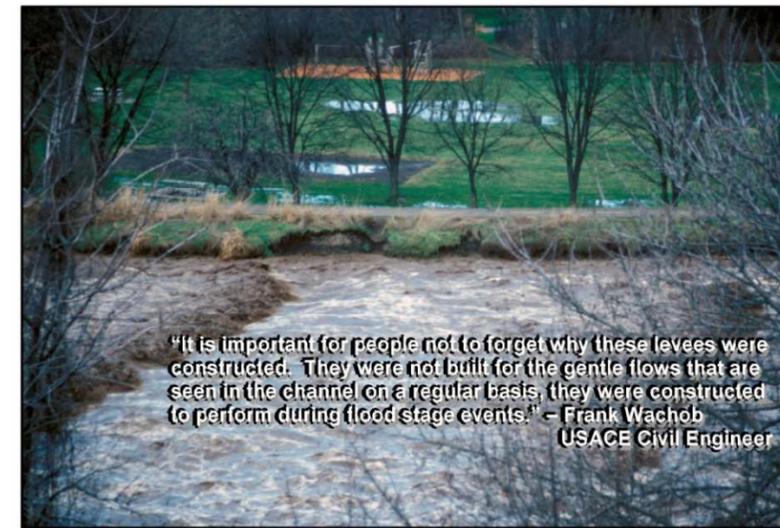
Our planning process included an environmental assessment (EA), with a public comment period conducted July 23-Aug. 23, 2015. The EA and FONSI are available on the District website www.nww.usace.army.mil/Missions/Projects/MillCreekLeveeMaintenance.aspx.



Non-compliant vegetation on levees blocks visibility for inspections, access for maintenance and inspection, and hinders flood fighting.



Roots growing into the cross section provide a path for water to follow through the levee, increasing the potential for seepage problems to occur and putting the integrity of the embankment at risk of failure.



"It is important for people not to forget why these levees were constructed. They were not built for the gentle flows that are seen in the channel on a regular basis, they were constructed to perform during flood stage events." – Frank Wachob, USACE Civil Engineer

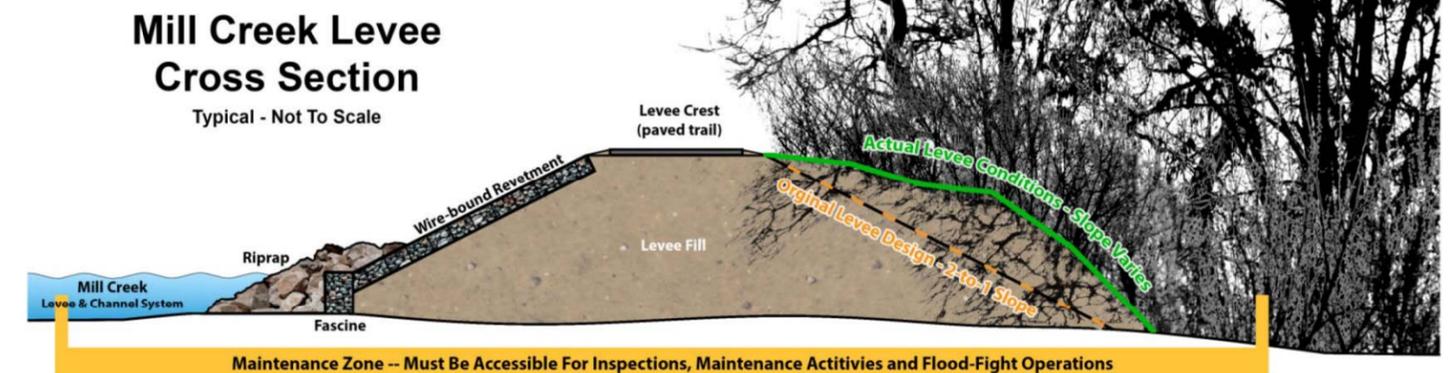
We are considering the environment – The Corps has gone to great effort to minimize the amount of woody vegetation that needs to be removed. We recently surveyed the levees and are measuring the maintenance zone from the base of the original design slope (called the toe) instead of the actual physical slope, which extends far beyond the design toe in many locations. Work will be conducted outside bird-nesting season and a qualified biologist will inspect the trees prior to removal.

The Corps maintains about two-thirds of Mill Creek Project lands for habitat purposes (412 of 612 total acres). We estimate less than 6 acres of woody vegetation will need to be removed from

the levee maintenance zone. Once the zone is cleared and levee repairs completed, grasses will be planted to improve the aesthetics and benefit insects. Vegetation outside the zone will be allowed to develop naturally. Additionally, based primarily on input received during public comment period, the preferred alternative was modified to include a requirement to look for and identify, if possible, opportunities for additional plantings in overbuilt areas or outside the levee’s 15-foot vegetation-free zone. If identified, such additional plantings will be added to the Mill Creek Project planting strategy.

Why hasn’t the Corps removed the trees before now? Over many years, the Corps has been trying to formulate a viable solution to address levee-maintenance issues at Mill Creek that has minimal impact on the aesthetic quality of the popular trails. Because of funding priorities and lack of staffing, we were unable to make much progress in this area. During the time that passed, the vegetation grew out of control and encroached into the levee maintenance zone.

In the Corps’ view of things, not knowing if our levees are in good condition and ready to perform during a flood is an unacceptable risk to public safety. It is not an option to continue to allow non-compliant vegetation to potentially put lives at risk.



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