



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).

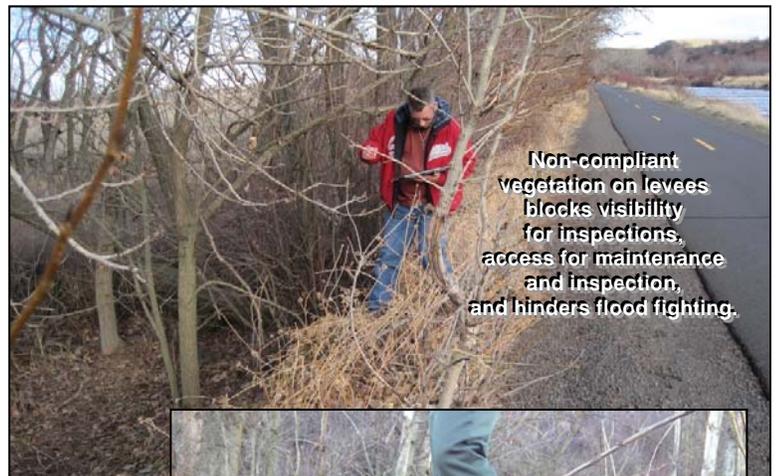
Corps levee vegetation standards require removal of woody vegetation from the levee crown, and to a distance of 15 feet from the levee toe on both sides of the levee or to the project right-of-way, whichever is closer. Roots growing into the cross section provide a path for water to flow through the 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.

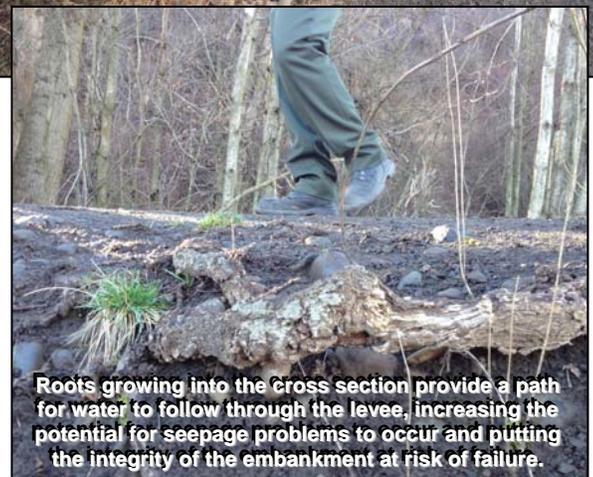
Right now, if we had to engage in a flood fight, we wouldn't be able to see if problems were developing, much less take swift action to place sandbags or operate heavy equipment to construct reinforcements.

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 as funding becomes available: the maintenance zone cleared, stumps removed, levee structure repaired and grasses planted.

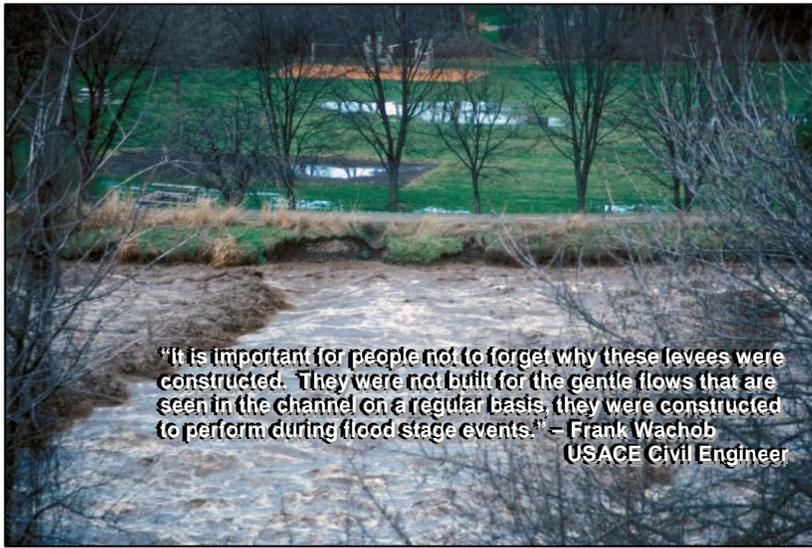
Our planning process includes an environmental assessment (EA), with opportunity for the public to submit comments July 24-Aug. 24, 2015. The EA and draft FONSI are available on the District website www.nww.usace.army.mil/Missions/Projects/MillCreekLeveeMaintenance.aspx.



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



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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.

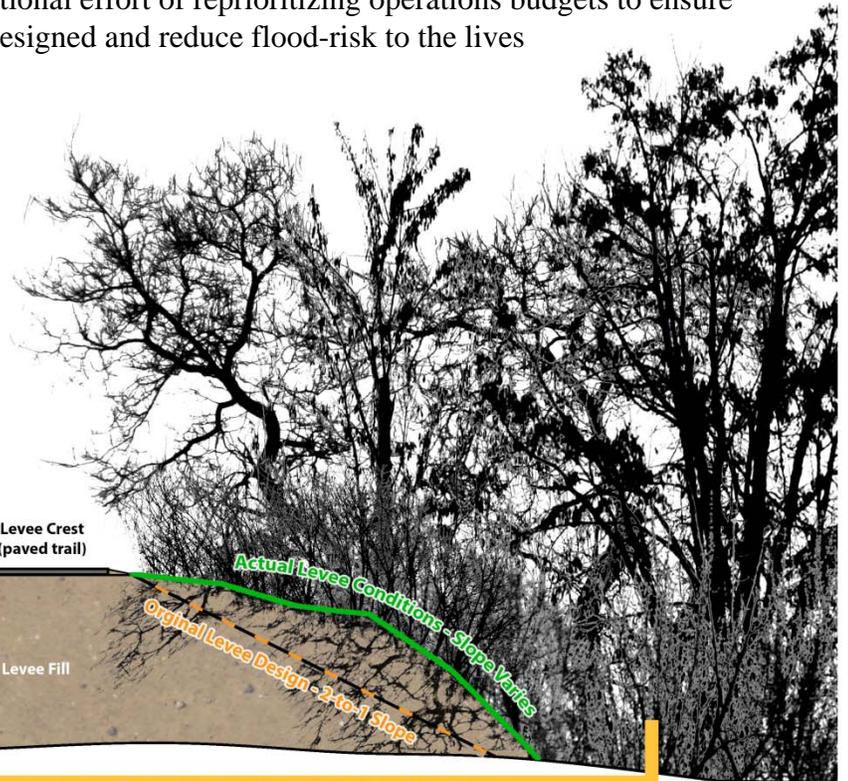
The Corps maintains about two-thirds of Mill Creek Project lands for habitat purposes (412 of 612 total acres). We estimate less than 6 acres of woody vegetation will need to be removed from

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.

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.

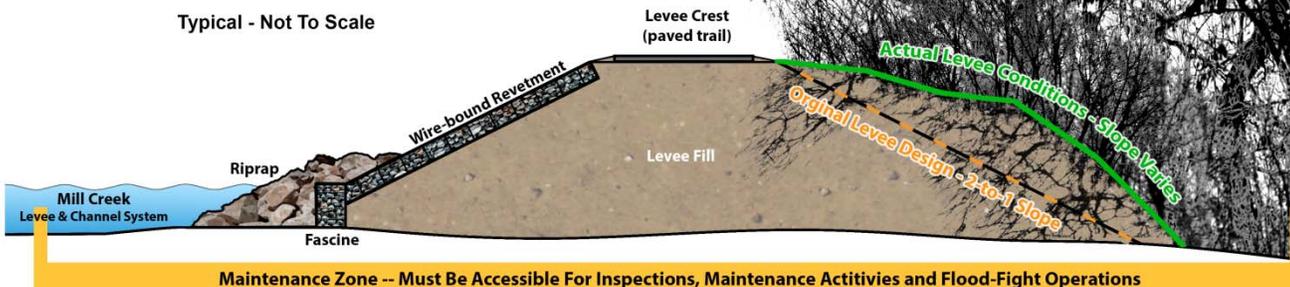
In 2005, Hurricane Katrina changed everything. That flooding disaster shed new light on the importance of levee safety, making it a national priority leading to a national effort of reprioritizing operations budgets to ensure our levees are properly maintained to perform as designed and reduce flood-risk to the lives and property they were built to help protect.

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.



Mill Creek Levee Cross Section

Typical - Not To Scale



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