Levee System Summary
Mill Creek Project – Right Bank System

U.S. ARMY CORPS OF ENGINEERS

May, 2016

Project Description
The Mill Creek Project provides flood risk reduction to the City of Walla Walla, Washington and adjacent areas. The 6.8 mile long channel is part of the Project and extends downstream of the diversion dam, through the City.

The right bank system (on the right looking downstream) is composed of 1.7 miles of concrete channel with floodwalls; 0.3 miles of cut-and-cover tunnel through downtown; and 4.8 miles of earth-fill levees with full-width weirs. Riverside slopes are armored with large stone along the levee toe, which provides erosion protection at regulated flows. The upper portions of levee slope are protected by a tied-wire gabion mattress. The right bank system also includes the Mill Creek Levee Extension, which is upstream of the main channel and prevents floodwaters from being diverted into the Titus Creek drainage and the downstream floodplain.

The first mile of levees downstream of the diversion dam are operated and maintained by the U.S. Army Corps of Engineers (USACE). The remaining levees and concrete channel are operated and maintained by the sponsor, the Mill Creek Flood Control Zone District, which is part of Walla Walla County Public Works.

The leved area, which is the property considered for estimating the consequences of flooding, includes approximately 2,700 people and 1,100 structures. The leved area includes portions of downtown Walla Walla and flood damages could be as high as $134 million dollars.

Risk Characterization
USACE began a nationwide assessment of the levee systems in its safety program to better understand the risks to communities, and advise and assist sponsors. The primary risk identified for the right bank system is progressive embankment erosion during a severe flood event. High flows have the potential to undermine and damage weirs, causing excessive erosion at isolated locations along the base of the levee. Weir movement or collapse during an extreme event can damage the armor stone along the base of the levee and this can result in progressive erosion that can lead to failure.

What is important to know?
The Mill Creek Project reduces the risk of flooding, but does not eliminate it. Portions of the channel were constructed in the 1930s, though most of the leved channel was completed in the early 1940s. The levee channel, including weirs, was fully rehabilitated in the 1980s. The channel has performed well during several large flood events. However, over time, continued safe operation will require increasing amounts of maintenance. USACE is helping Walla Walla County identify risks to inform maintenance decisions, improve public awareness, and reduce risk. Several recommendations are included in the table below.
Latest Routine Inspection: Completed November 2015  
Results: Minimally Acceptable

Latest Periodic Inspection: Completed July 2010  
Results: Minimally Acceptable

Rehabilitation Program Eligibility Status: The levee is eligible for rehabilitation assistance under the authority of Public Law (PL) 84-99 should the levee be damaged by a flood event.

National Flood Insurance Program Status: Mill Creek Federal levees are shown on FEMA Flood Insurance Rate Map 530194-0435-B. This map depicts the levees providing 1-percent annual chance exceedance for flood risk reduction. This information is current as of December 1, 1983.
Access NFIP flood hazard mapping products, including Flood Insurance Rate Maps, at the FEMA Flood Map Service Center website: [https://msc.fema.gov/](https://msc.fema.gov/)

Ongoing Activities and Studies: Walla Walla County has requested a Flood Risk Management General Investigations Study for Mill Creek in Walla Walla, Wash. The study has not been funded but budget requests are being submitted.
The Walla Walla District has initiated a more detailed channel risk assessment.

Maintenance Recommendations by the Corps:
- A survey and evaluation should be conducted to determine overall condition of stabilizers and the gabion slope mattress.
- Locate and characterize scour severity and locate areas of undermining.
- Implement improved inspections to allow monitoring of conditions.
- Repair weirs and replace failed tied-wire gabion mattress areas as needed.

Who Can I Contact? Information concerning this levee system may be obtained by contacting the following entities:

| Local Emergency Management Agency | Walla Walla County – Emergency Management  
27 N. 2nd Avenue  
Walla Walla, WA 99362  
(509) 524-2900  
emd@co.walla-walla.wa.us |
|-----------------------------------|---------------------------------|
| Levee Sponsors                    | Walla Walla County - Mill Creek Flood Control Zone District  
990 Navion Lane  
Walla Walla, WA 99362  
(509) 524-2710  
http://www.countyroads.com/index.php/floodcontrol |
| FEMA National Flood Insurance Program | General questions about the FEMA Map Information eXchange (FMIX): 877-336-2627 (toll-free), or email at: FEMAMapSpecialist@riskmapcds.com  
For questions about FEMA flood hazard mapping for this levee system, contact:  
David Ratté  
FEMA Region 10  
(425) 487-4657  
David.Ratte@fema.dhs.gov |
| USACE National Levee Database     | http://nld.usace.army.mil |
| USACE Walla Walla District        | U.S. Army Corps of Engineers Walla Walla District  
201 North 3rd Avenue  
Walla Walla, Washington 99362  
http://www.nww.usace.army.mil/ |

FLOOD RISK ASSOCIATED WITH LEVEES CAN CHANGE  
Know your risk, know your role, and take action!