Mill Creek Flood Control Channel and the Mill Creek Channel Coalition















$1931 \ Flood - {\rm Flows \ between \ 5000-6000 \ cfs}$





Palouse Street - 1931

Alder Street - 1931

Mill Creek Flood Control Channel

Quick Facts:

- 1931 Flood prompted action
- Channel constructed in the mid-1930s with completion in 1942
- Channel is approximately 7 miles long
 - ➤ 1 mile levee embankment (Corps of Engineers)
 - ➤ 4 miles levee embankment (Mill Creek Flood Control Zone District)
 - ➤ 2 miles concrete channel (Mill Creek Flood Control Zone District)
- Channel protects about 20,000 people and 8,000 structures
- Assessed value within the Mill Creek Flood Control Zone is approximately \$3 billion
- Channel approaching the end of its design life



Mill Creek Flood Control Zone District

* (B)



Why We're Concerned

Increased flood risk:

- Channel constructed 80 years ago by multiple agencies structural integrity uncertain
- 2013 USACE Planning Assistance to States study concluded:
 - ➢ 2010 Periodic Inspection by the Corps rated channel "minimally acceptable"
 - Deficiencies noted in the levees, floodwalls, drainage systems, and concrete channel
 - Maintenance costs rising exponentially over time (budget quadrupled over past 3 years)
 - Decades of accumulated stress and deterioration created issues beyond routine maintenance and repair - new deficiencies emerge each year
- Operational changes (for dam safety) by the Corps increased regular flows through the channel. Current deficiencies, combined with higher regular flows created a new sense of urgency with respect to the long-term functionality of the channel.
- Deterioration of channel crossings (bridges, buildings, parking lots) also contribute a sense of urgency to re-evaluate channel capacity in the downtown corridor.



















Levee Safety Action Classification (LSAC)

- Corps sponsored levee safety activity to assess risk of flooding relative to other levees
- Levee screening criteria include:
 - Probability of an event
 - Performance of infrastructure
 - Consequences of failure
- Ratings range from LSAC 5 (low risk) to LSAC 1 (high risk)
- Mill Creek ratings (looking down stream):
 - Right bank levee system received an LSAC 3 rating (high priority)
 - Left bank levee system received an LSAC 2 rating (urgent)

Why We're Concerned

Fish passage for ESA listed fish:

- Channel design limits passage of ESA listed fish
- Fish must migrate through concrete channel without resting areas
- Lethal water temperatures often present by mid-May with decreasing flows fish become trapped in warm waters
- Hydraulic conditions create fish passage barriers throughout the channel
- Some small fish passage projects completed in coordination with the Mill Creek Work Group minimal funding exists for future projects

Mill Creek Flood Control Channel

Next Steps:

- Walla Walla County continues project maintenance
- Corps finalized initial Appraisal report under Sec. 216 Authority
- Coalition seeks Congressional support for a comprehensive Federal study (General Investigation Study) (GI Study)
- Coalition seeks Corps of Engineers funding for study
 - ➢ FY 2018/2019 work plans
 - ➢ FY 2019/2020 President's Budget
- Coalition continues coordination with CTUIR

General Investigation Study

- Comprehensive study of the Mill Creek Channel and the flood control system
 - Assess condition of infrastructure
 - Assess system capacity
 - Assess overhead obstructions
 - Assess water quality & fish passage conditions
- Based on assessments, determine what comes next
 - Develop alternative solutions to address problems
 - Evaluate alternatives against established evaluation criteria
 - Recommend a preferred alternative

General Investigation Study

- GI Study Parameters (3 x 3 x 3)
 - > Cost of the study is 3,000,000
 - ✓ Non-federal sponsor is the Mill Creek Flood Control Zone District (WW County)
 - ✓ Cost shared 50-50 (Federal Government –Coalition members)
 - \checkmark In-kind work credited toward cost share
 - Study completed within 3 years
 - The Corps commits to 3 simultaneous levels of review (District-Division-HQ)

Mill Creek Flood Control Channel Conclusions

- Flood risk is the primary concern
- Channel approaching the end of its design life
- Channel deficiencies, combined with higher routine flows, have created a strong sense of urgency for action
- Upper Mill Creek provides vital fish habitat passage throughout the channel critical to ESA listed fish
- Community leaders willing to assist Corps in re-evaluating the channel
- A viable non-federal sponsor is in place (WW County with support from other Coalition members)
- THE TIME FOR ACTION IS NOW