

# Missoula's Levees



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# Introduction

Per Chapter 13.27 Missoula  
Municipal Code: Stormwater  
Management

- “Stormwater system” in this chapter also includes the City’s flood control devices, such as levees, floodwall, high-hazard dams, and their appurtenances.

## Four Accredited Levees sponsored by the City

- Clark Fork Area III
- Clark Fork Area V
- Grant Creek
- Pattee Creek
  - Spartan and Playfair Park Detention Basins
  - Grit Chamber
- **Maintenance Requirements**



U.S. Army Corps of Engineers repaired 260 feet of Levee V in Nov. 2022



# Accredited Levees

The Federal Emergency Management Agency (FEMA) has determined it meets the requirements of National Flood Insurance Program (NFIP) regulations (44 CFR 65.10) and that FEMA has recognized on a Flood Insurance Rate Map (FIRM) as reducing the flood hazards posed by a base (1-percent-annual-chance/100-year) flood.

Properties located in the floodplain behind an accredited levee receive reduced flood insurance rates.

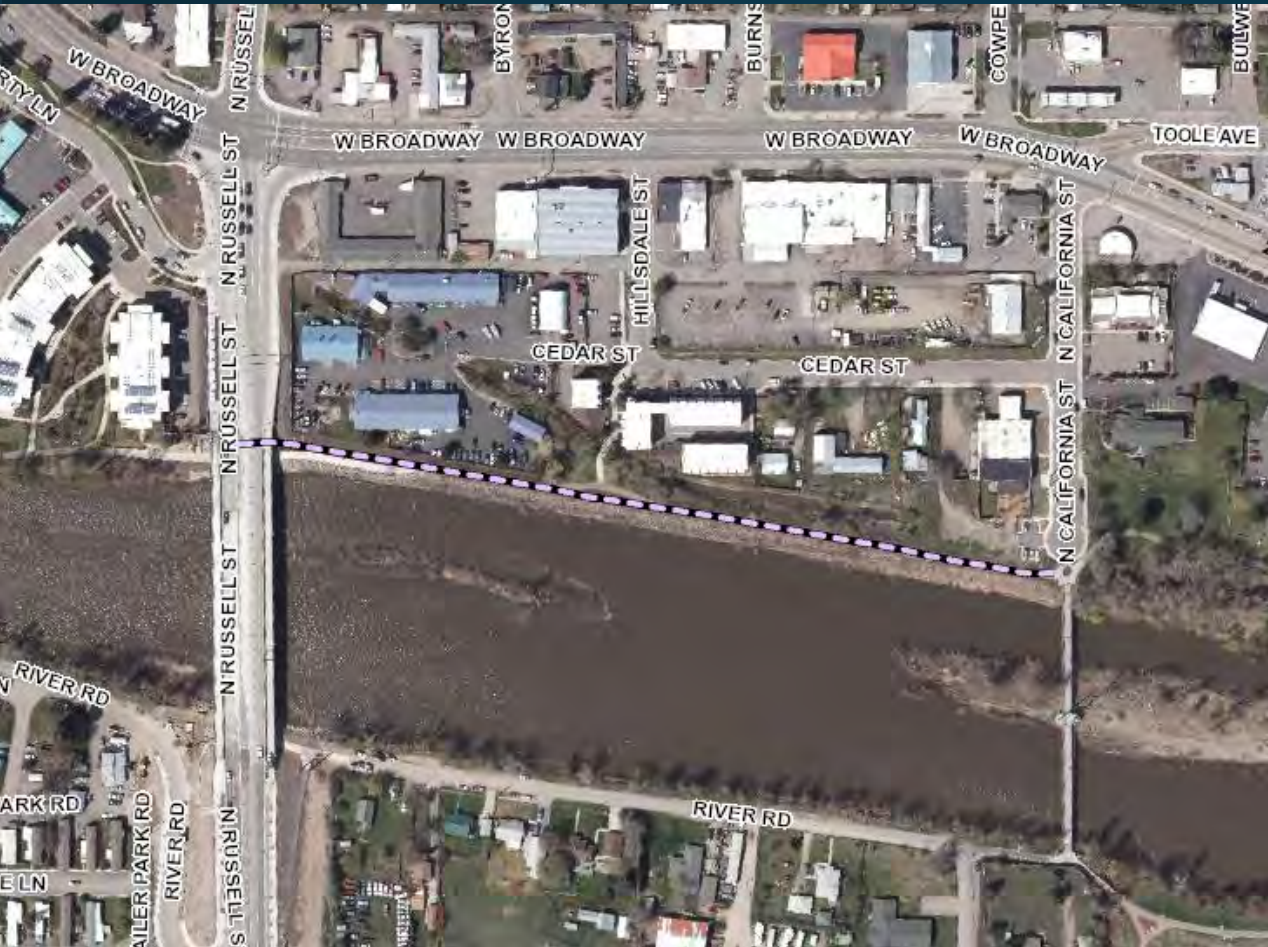
2018 Flooding (4% Annual Chance or 25-year flood)  
Target Range/Orchard Homes



- Built: 1966
- Accredited
- Federally authorized levee (built by the U.S. Army Corps of Engineers)
- Locally sponsored by the City
- Length: 2,900 feet of embankment and 900 feet of floodwall
- Extent: North bank, Madison to Orange



# Clark Fork Area V



- Built: 1964
- Accredited
- Federally authorized levee (built by the U.S. Army Corps of Engineers)
- Locally sponsored by the City
- Length: 1,250 feet of embankment
- Extent: North bank, California to Russell



# Clark Fork Area V

- Flood damaged section eligible for repair under the PL84-99 Program
- Fall 2020 - requested federal assistance to repair approx. 260 feet of bank/displaced riprap
- Army Corps completed the work this month (November 2022)
- 100% of the project paid for by the U.S Army Corps of Engineers (\$850,000)
- Required for the levee to retain accreditation



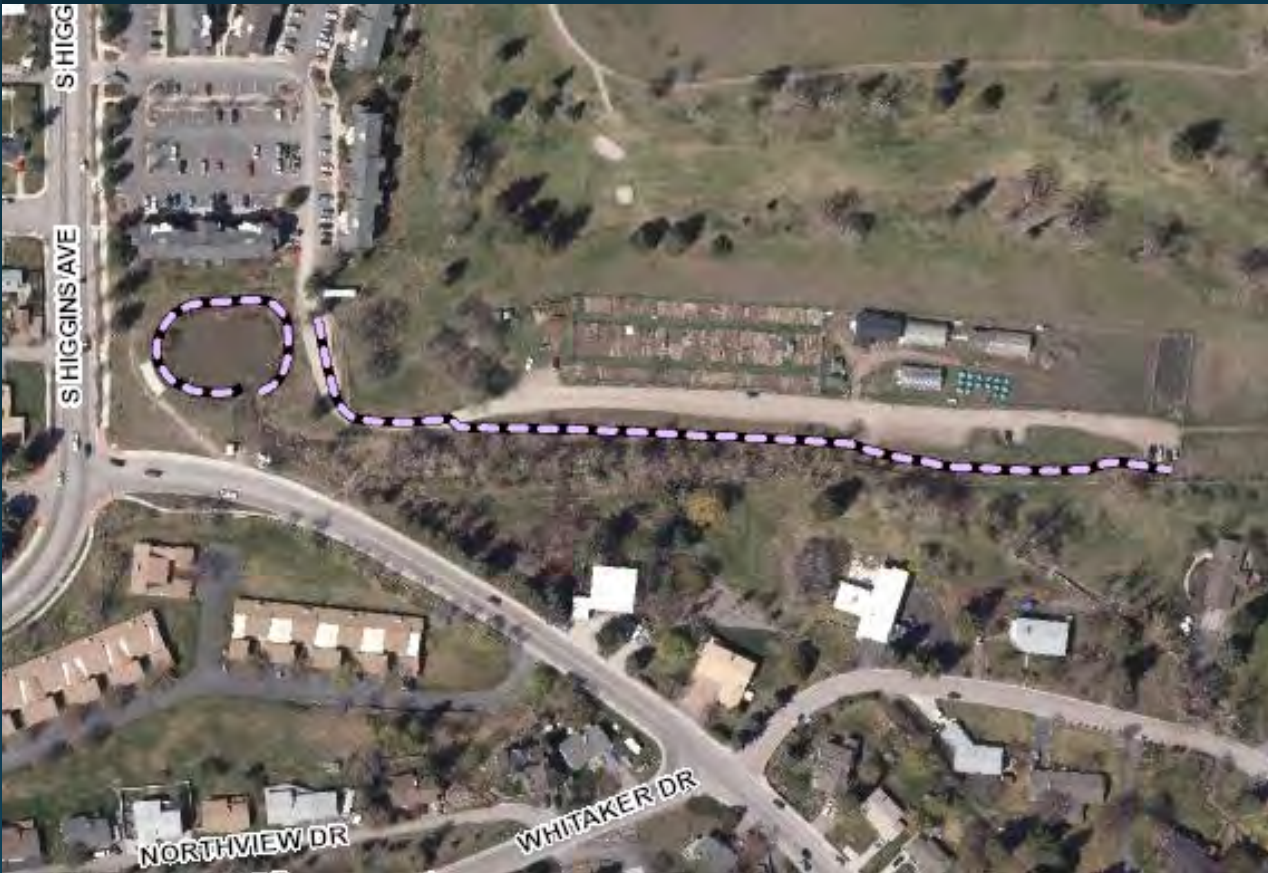




# Grant Creek

- Built: 1991
- Accredited
- Locally funded, non-federal levee
- Sponsored by the City
- Length: 3,000 feet of embankment

# Pattee Creek



- Built: modified 2004
- Accredited
- Locally funded, non-federal levee
- Sponsored by the City
- Length: 1,100 feet of embankment
- Part of the South Hills Storm Drain System
- Grit Chamber



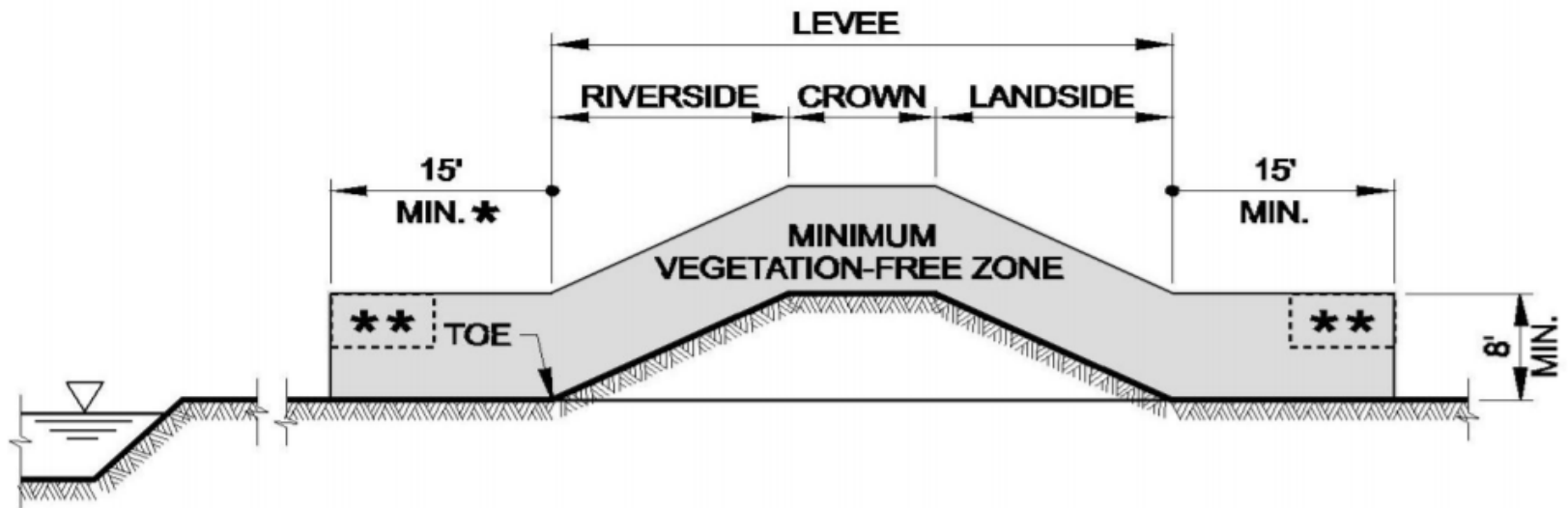
# Pattee Creek



- Built: modified 2004
- Accredited
- Locally funded, non-federal levee
- Sponsored by the City
- Length: 1,100 feet of embankment
- Part of the South Hills Storm Drain System
- Grit Chamber
- Spartan and Playfair Park Detention Basins

# Vegetation Maintenance

Remove vegetation not in compliance with USACE vegetation standards. The crown, slopes, and 15 feet from the toe of the levee or floodwall should be clear of vegetation as the regulation originally stated in Engineering Technical Letter (ETL) 1110-2-583 (expired ) and Engineering Pamphlet (EP) 1110-2-18.



**\* 15' OR DISTANCE TO EDGE OF NORMAL WATER SURFACE, IF LESS**

**\*\* IN THIS 4' X 7' TRANSITION ZONE, TEMPORARY OBSTRUCTION BY LIMBS AND CROWN IS ALLOWED DURING DEVELOPMENT OF NEW PLANTINGS, FOR UP TO 10 YEARS**

**▽ NORMAL WATER SURFACE**



# Vegetation Maintenance

Remove vegetation not in compliance with USACE vegetation standards. The crown, slopes, and 15 feet from the toe of the levee or floodwall should be clear of vegetation as the regulation originally stated in Engineering Technical Letter (ETL) 1110-2-583 (expired ) and Engineering Pamphlet (EP) 1110-2-18.



# Vegetation Maintenance

USACE recognizes that the protections provided to threatened and endangered species, like bull trout, may supersede their vegetation guidelines.







# Vegetation Maintenance

## Long-Term Goal

Remove all non-native vegetation and cottonwoods, transition levee slopes to native shrub cover, where diameter at breast height < 4 inches.



# Questions?

# STORM WATER

*City of Missoula*

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