Coyote Creek Flood Protection Project

Problem Definition and Refined Project Objectives

June 3rd, 2019 Public Meeting
Roosevelt Community Center
901 E. Santa Clara Street
6:00 – 8:00 pm
**Flood Risk Reduction Work Since 2017**

- **Floodwall and berm installation**
- **Invasive vegetation Management and blockage removal**
- **Installation of visible stream gauges**
- **Levee Repair**
Agenda

1. Project Setting
2. Project History and Description
3. Project Status and Timeline
4. Conceptual Solutions
5. Next Steps
Coyote Creek Watershed Description
History of Coyote Creek Floods

- Flood Event: "The Great Flood" (1861-1862)
- Flood Event (1890)
- Flood Event (1911, peak discharge 25,000 cfs)
- Flood Event (1917, peak discharge 10,100 cfs)
- Flood Event (1932, peak discharge 10,600 cfs)
- Flood Event (1958, peak discharge 5,750 cfs)
- Flood Event (1969, peak discharge 3,570 cfs)
- Flood Event (1982, peak discharge 3,780 cfs)
- Flood Event (1983, peak discharge 4,580 cfs)
- Flood Event (1997, peak discharge 6,280 cfs)
- Flood Event (1998, peak discharge 3,833 cfs)
- Flood Event (2000)
- Flood Event (2010)
- Flood Event (2017, peak discharge 7,410 cfs)
History of Coyote Creek Floods

- Flood Event: "The Great Flood" 1861-1862
- Flood Event 1890
- Flood Event 1911
- Valley Water created 1929
- Coyote Dam Constructed 1936

Legend:
- Flood Event
- Valley Water
- Milestone Event
History of Coyote Creek Floods

- Flood Event: "The Great Flood" 1861-1862
- Flood Event: 1890
- Flood Event 1892
- Peak Discharge at Madrone Station (cfs):
  - 25,000 cfs 1911
  - 10,100 cfs 1917
  - 10,600 cfs 1932
  - 5,750 cfs 1958
  - 3,570 cfs 1969
  - 4,580 cfs 1983
  - 6,280 cfs 1997
  - 3,833 cfs 2017

Milestone Events:
- Valley Water created 1929
- Coyote Dam Constructed 1936
- Anderson Dam Constructed 1950

Projects:
- Flood Protection Project: Montague Expressway to I-880 1972
- Flood Protection Project: San Francisco Bay to Montague Expressway 1995
- South Bay Mobile Home Park Floodwall 2000
- 2001 Acquisition Program for Flood Hazard Mitigation
- 2017 Rock Springs Area Flood Protection Measures
- 2024 - Flood Protection Project Tentative Completion
Flooding History: Santa Clara Street, January 1890

Flooding History: Monterey Road, March 7-9, 1911
Flooding History: Nordale Avenue, January 27, 1997
Flooding History: Golden Wheel Mobile Home Park, February 8, 1998

Photographer Richard Wisdom, San Jose Mercury News
Watershed Modifications - 1800s

Watershed Modifications - 1852

Watershed Modifications - 1895

Watershed Modifications - 1950

Local Peak versus Upper Watershed Peak

Two main flow contributions to Coyote Creek in response to a rainfall event:

1. Direct watershed input from local tributaries, and/or
2. Upper watershed input

![Discharge vs Time Graph]

1. Local Peak
2. Peak from Spilling Dam
Historical Landscape Conditions: 
*Oakland Road*

Historical Landscape Conditions:

Watson Park

# Peak Flows Summary Results

<table>
<thead>
<tr>
<th>Location</th>
<th>February 2017 Observed Flows (cfs)</th>
<th>February 2017 if flows confined within channel (cfs)</th>
<th>Upper Watershed Peak Design Storm (cfs)</th>
<th>1% Local Peak Design Storm (cfs)</th>
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<tbody>
<tr>
<td>I-280</td>
<td>7,250</td>
<td>7,250</td>
<td>7450</td>
<td>3,590</td>
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<tr>
<td>East William Street</td>
<td>7,200</td>
<td>7,250</td>
<td>7450</td>
<td>3,630</td>
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<td>Berryessa Road</td>
<td>7,550</td>
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<td>I-880</td>
<td>7,400</td>
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November 2000
Voters approve Clean, Safe Creeks and Natural Flood Protection Plan

2006-2009
Search for additional funding and federal partnership

Coyote Creek Flood Protection

$32 Million allocated to Mid-Coyote Creek project, 100-year flood protection

District attempted to obtain additional USACE funding but was not successful
Design for downstream reaches initiated 2011-2012

Cost estimated between $500 Million and $1 Billion

2011
Mid-Coyote Creek Planning Study completed

Design paused due to uncertainties of impacts from related projects

November 2012
Voters approve Safe, Clean Water, and Natural Flood Protection Program

Project’s remaining budget carries forward
2016 -2017 Winter Season
California experienced precipitation at 190% of average

Coyote Creek overtopped its banks at several locations between Montague Expressway and Tully Road

- Project scope extended
- Change of target protection
- Short-term relief solutions
- Use local funding to complete planning and design phases of near term project
- Identify additional partnerships

June 2017
Modification of original project goals and acceleration of project
Project Objective:

Reduce Risk of Flooding from a flood event equivalent to the February 2017 event

Additional Project goals:

- Stream Habitat Enhancement
- Improve Water Quality
- Provide for Public Access and Recreation
- Minimize Need for Future Maintenance Activities
Reach 4: Montague Expressway to Old Oakland Road
Reach 5: Old Oakland Road to Mabury Road
Reach 6: Mabury Road to East Santa Clara Street
Reach 7: East Santa Clara Street to I-280
Reach 7: East Santa Clara Street to I-280
Reach 8: I-280 to Tully Road
Project Components, Status and Timeline

**Expedited Project Timeline:** Assumes project alternative selected for implementation does not require extensive permitting

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Conceptual Solutions

Invasive vegetation control

Flood proofing & voluntary purchase of repeatedly flooding properties

Set-back floodwalls, berms and levees

Off-stream flood detention, mainly upstream of scope
Flood Proofing

EXISTING

PROPOSED
Set-back berms and levees

EXISTING

PROPOSED
Floodwalls

EXISTING

PROPOSED
Flood protection and additional enhancements

EXISTING

PROPOSED

NOT TO SCALE
Next Steps

**Problem Definition Report**: Nov 2017 – Jan 2019 (Draft Completed)

- Public meetings scheduled for the end of May to incorporate public comments and finalize

**Conceptual and Feasible Alternatives**: Sep 2018 - Sep 2019

**Planning Study Report**: July 2019 – Jan 2020

**Design, CEQA and Permitting**: Jan 2020 – Dec 2021

**Construction**: Jan 2022 – Dec 2024
For more information

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QUESTIONS
Valley Water
Clean Water • Healthy Environment • Flood Protection