



COMMUNITY ENGAGEMENT MEETING

# Upper Guadalupe River Flood Risk Management General Reevaluation Study



Email [UpperGuadalupe@usace.army.mil](mailto:UpperGuadalupe@usace.army.mil)  
or visit <https://delivr.com/2zhgu>

August 6, 2022

U.S. Army Corps of Engineers (USACE), San Francisco District  
Santa Clara Valley Water District (Valley Water)



# MEETING PURPOSE & OBJECTIVES



- Welcome!
- U.S. Army Corps of Engineers (USACE) & Valley Water Flood Study
- Your feedback is valuable
- USACE Planning Process
- Staying informed and engaged



We're better with your voice



US Army Corps  
of Engineers ®

# AGENDA

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- Opening Remarks
- Background and Project History
- Problems and Opportunities
- Alternative Plans
- Evaluation and Comparisons
- Next Steps
- Open House for Questions and Answers

# HOW DID WE GET HERE?

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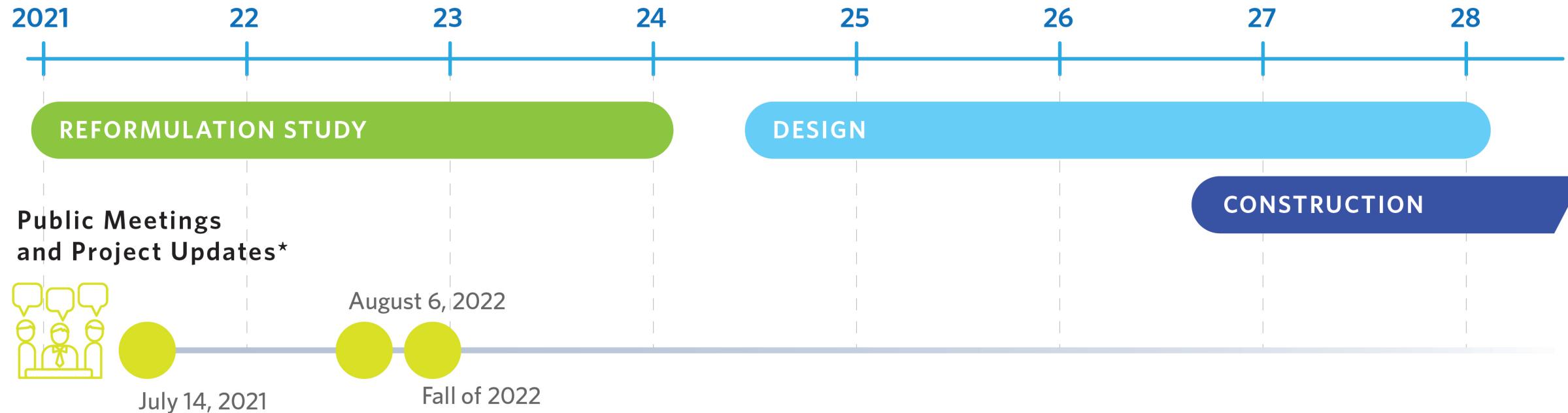
- Risk of flooding in Upper Guadalupe River, Ross Creek and Canoas Creek
- Completed study and initiated Project
- Plantings to improve river conditions for fish
- Final design determinations
- Project cost and how we're moving forward



# PROJECTED TIMELINE

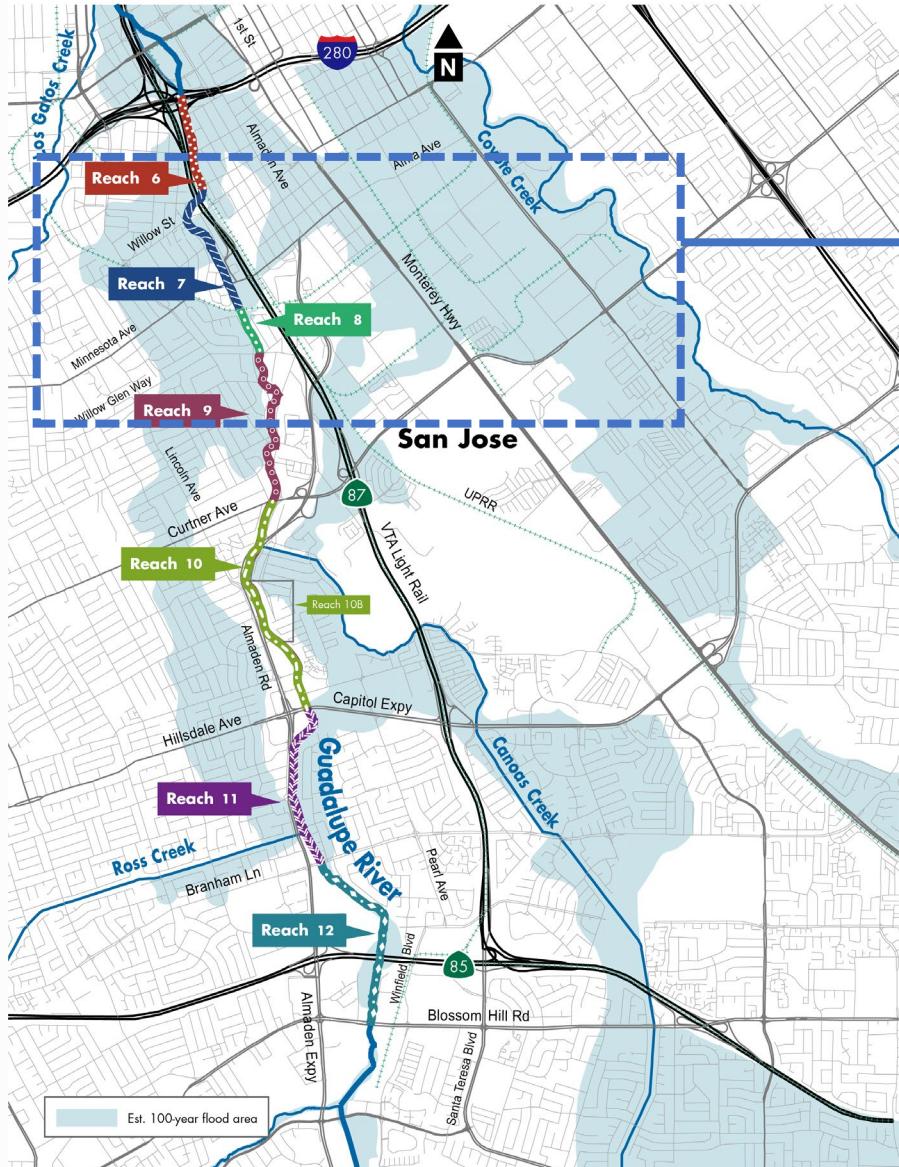


## Calendar Years\*



*\*Estimated timeline subject to change based on conditions permitting.*

# PROJECT LOCATION

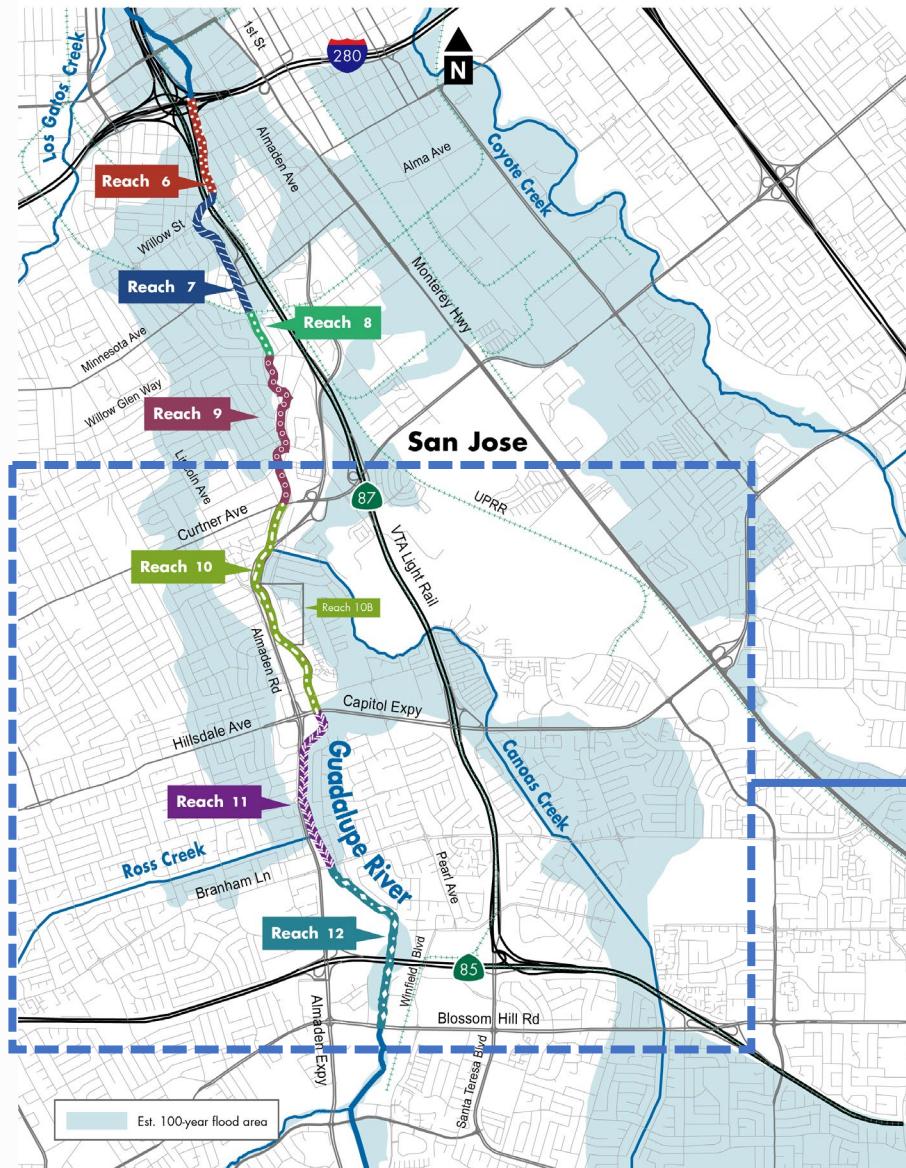


## Reaches 7 & 8

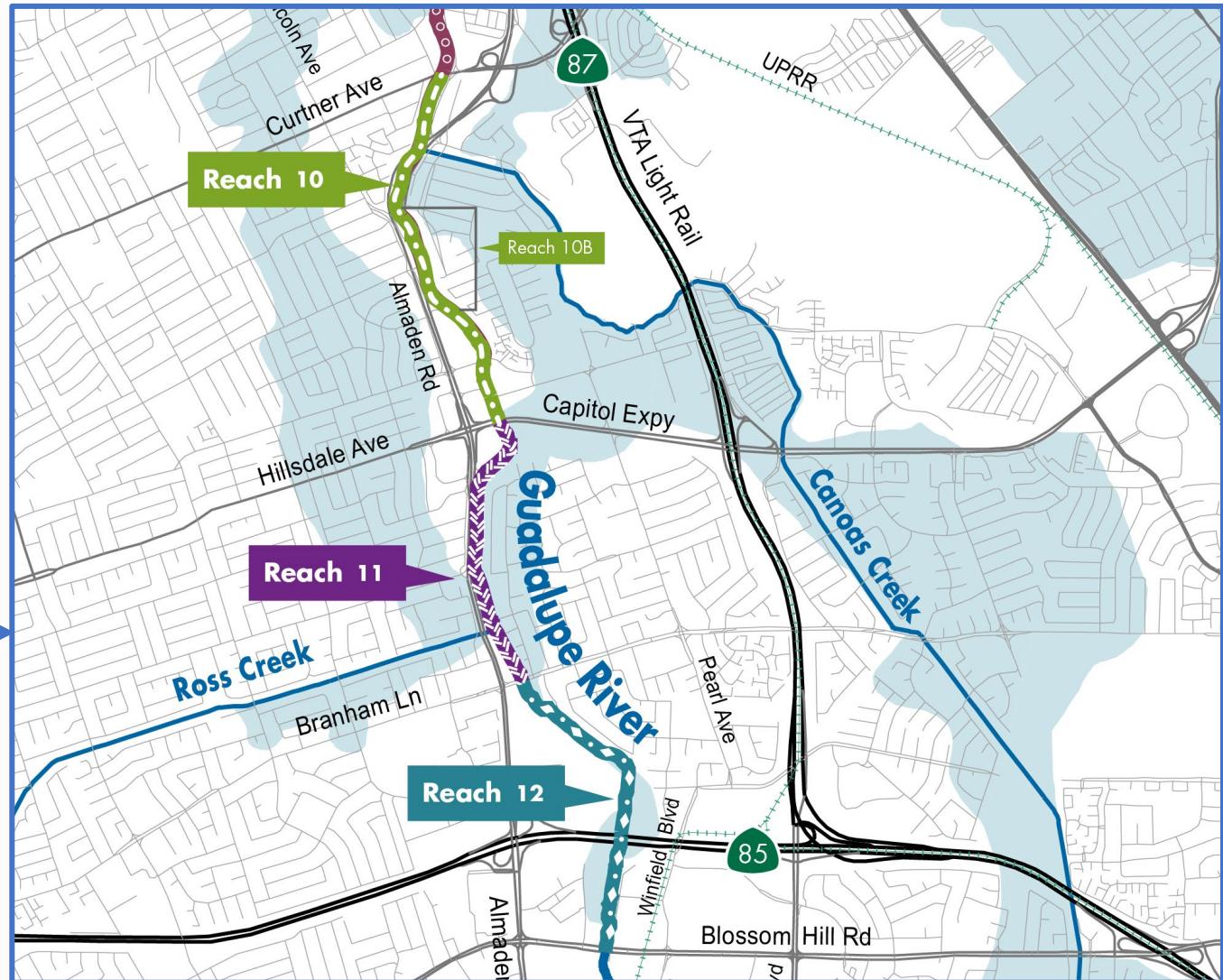


- Upper Guadalupe River is divided into 7 reaches.
- 3 reaches have been completed.
- Current project focuses on **reaches 7 & 8** as well as **Canoas and Ross Creeks**.
- Reaches 7 & 8 are located from Willow Street to Willow Glen Way in San José.

# PROJECT LOCATION



Canoas and Ross Creeks, which flow into Guadalupe River

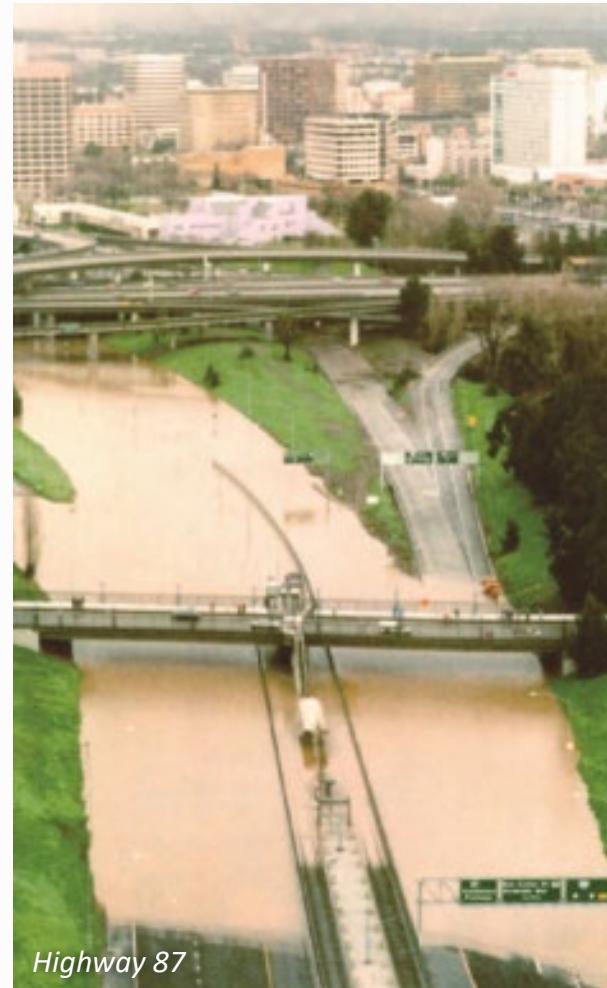


# REFORMULATION STUDY AND GENERAL REEVALUATION



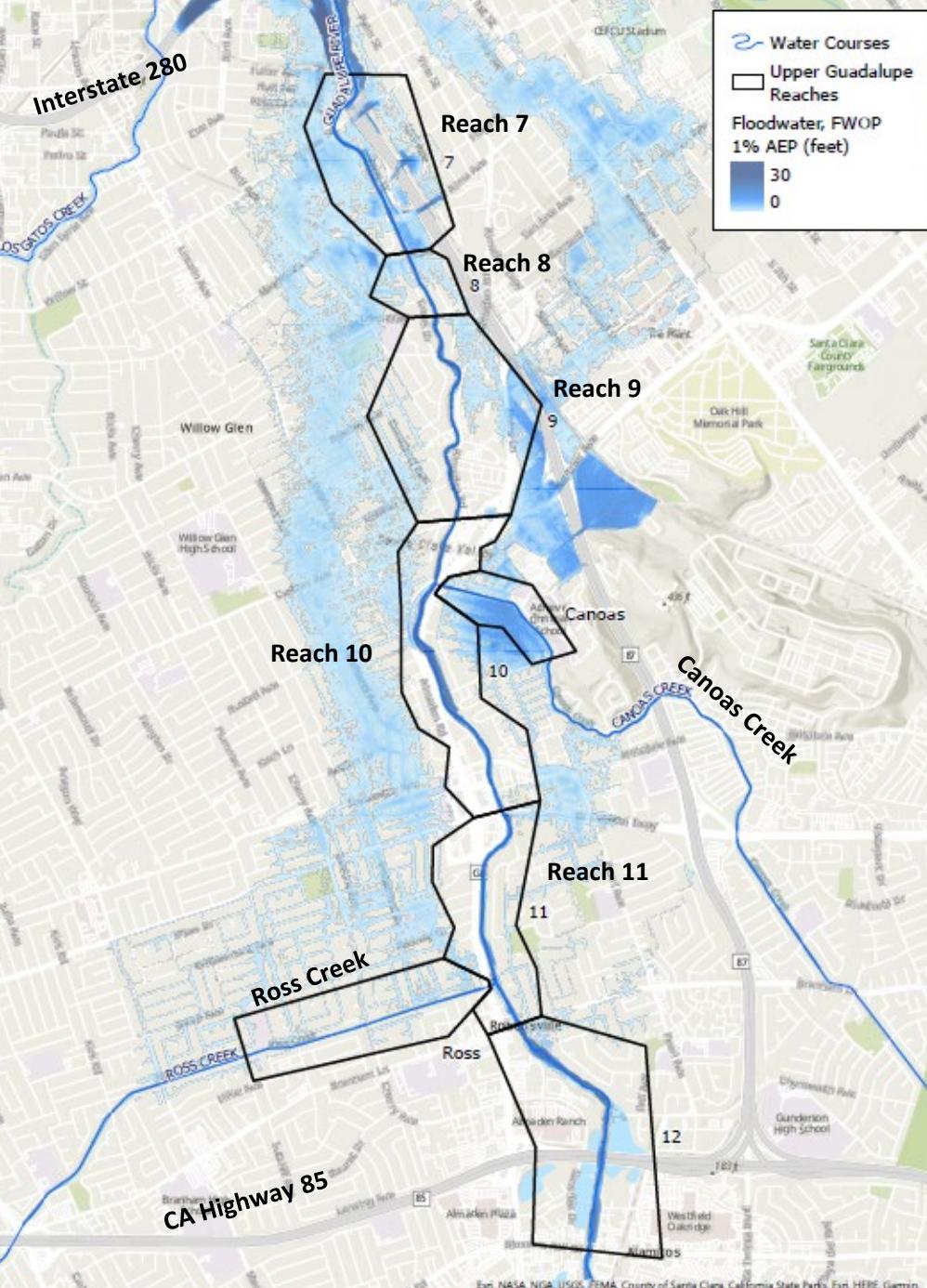
*Willow Street railroad underpass*

1995 Flooding in Downtown San José area.



*Highway 87*

- Primary purpose is **flood risk management**
- **Recreation** features to be added at later phase
- **General Reevaluation Study** to re-analyze benefits of:
  - Alternatives to manage flood risk
  - Environmental quality
  - Social impacts
- Informs the plan comparison and selection



# EXISTING FLOOD HAZARD

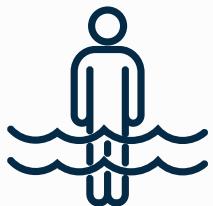


The logo of the US Army Corps of Engineers, featuring a stylized 'H' or castle-like emblem inside a square border.

- Estimated flooding for the probability of a 1% annual chance event
- Flood modeling shows:
  - Flows may spill over the banks of Guadalupe River, Reaches 7-8, Canoas Creek and Ross Creek, where they flow into Guadalupe River
  - Flood depths range
    - From 0-3 feet, shown in light blue
    - Up to 30 feet, shown in dark blue

*This map is for display reference only.*

# IMPACTS of NO PROJECT



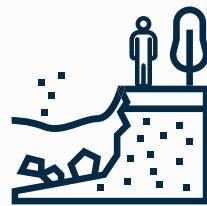
**Flood risk will remain** for people living near the river.



**Steelhead fish populations may continue to decline** due to poor river conditions.

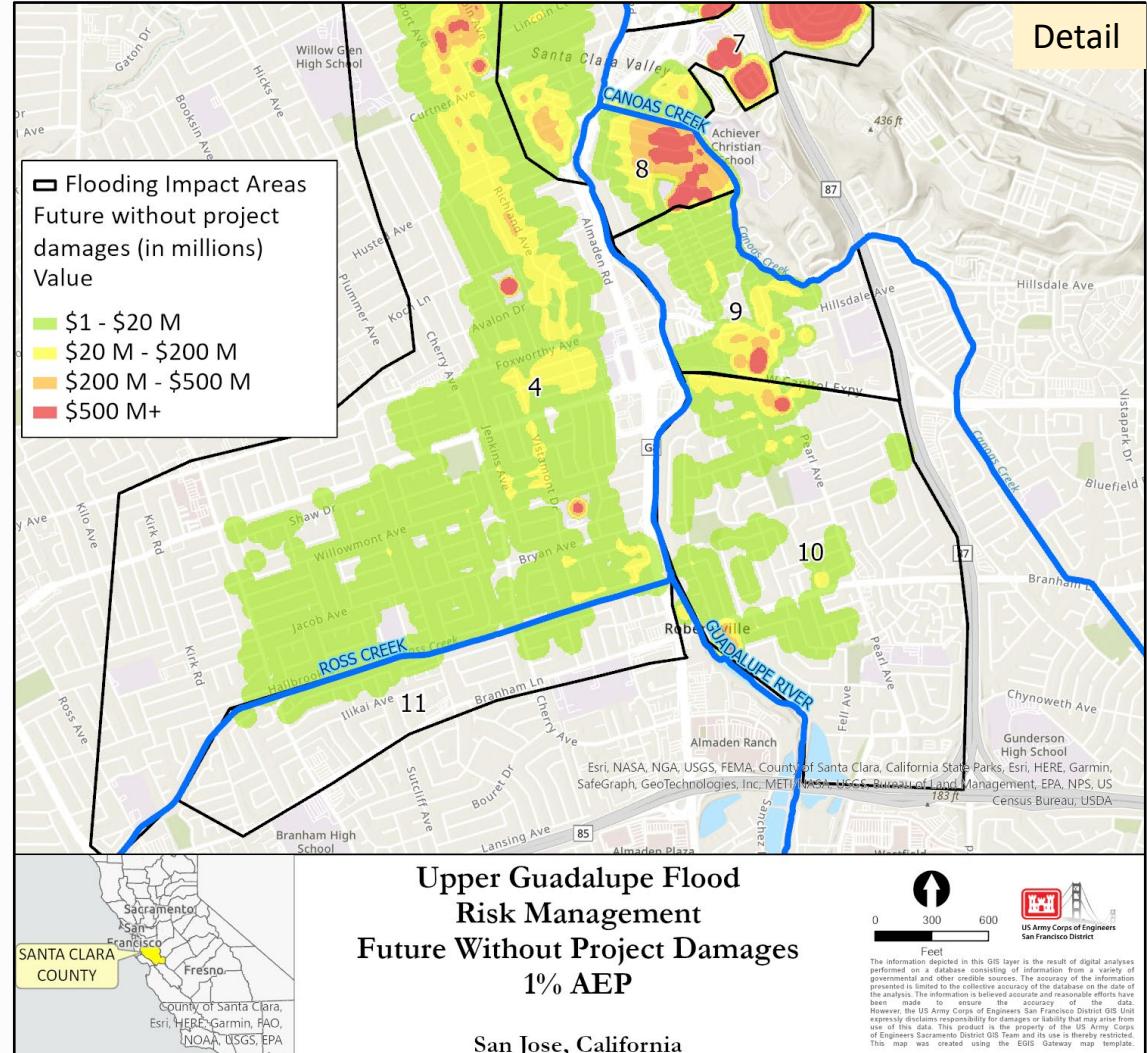
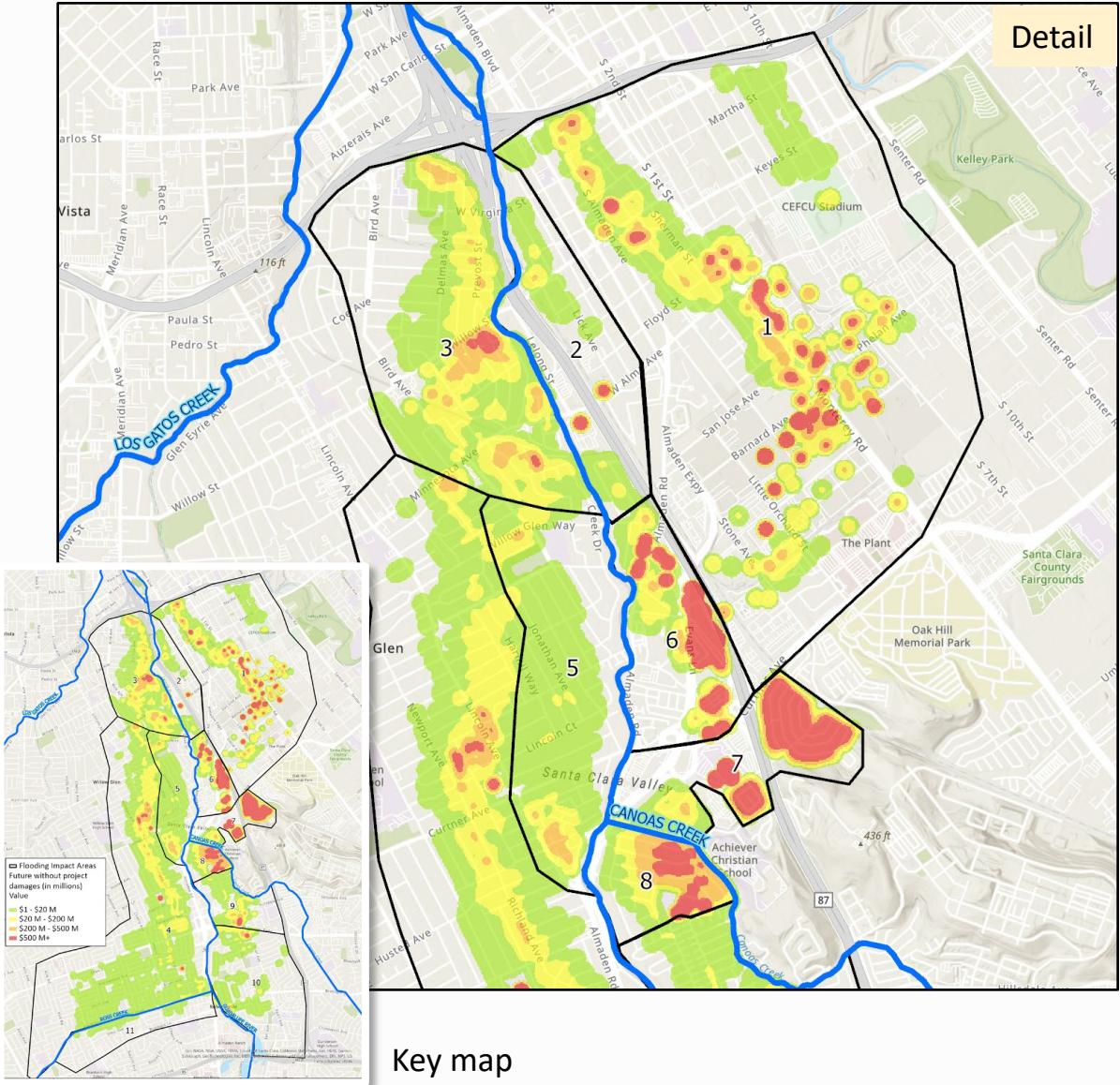


**Recreation opportunities** along the river would be from local municipalities.



**River banks will continue to erode and may not be safe** to walk along sections of the river.

# IMPACTS of NO PROJECT



# OVERALL REVIEW



## OBJECTIVES

- Reduce flood risk
- Reduce life safety risks from flooding
- Increase access to recreational opportunities
- Reduce maintenance
- Obtain community feedback on proposed projects

## PROBLEMS

- Significant flood damages and continued risks to community
- Erosion/incision damages impact nearby infrastructure and steelhead habitat
- Safety concerns
- Lack of public access/recreation

## OPPORTUNITIES

- Realize environmental quality benefits
- Increase access to river corridor and recreation opportunities
- Reduce channel maintenance requirements and cost

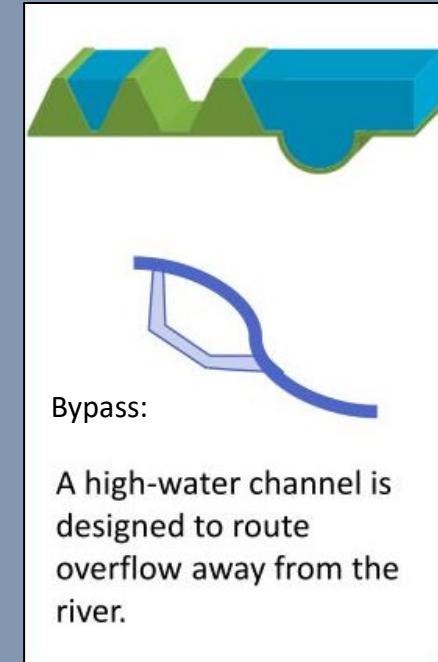
## CONSIDERATIONS

- Unhoused encampments along river
- Erosion issues in channel/banks
- Mercury contaminated soils
- Heavy clay soils & revegetation
- High speed rail
- Maintenance Issues
- Discovery of unanticipated archaeological sites

## CONSTRAINTS

- Impacts on threatened or endangered species
- Obtaining regulatory permits

# FLOOD PROTECTION STRUCTURES



**OPTIONS**

- Floodwalls
- Levees
- Crib walls
- Bypass channels
- Detention ponds

**BENEFITS**

- Lowered flood risk
- Takes less space

**IMPACTS**

- Less improvements for fish and wildlife
- Less space for recreation improvements
- Fixed height and location

# NATURAL AND NATURE-BASED FEATURES



## OPTIONS

- Bank setbacks
- Floodplain benches
- Floodplain reconnection
- Replanting vegetation along stream bank

## BENEFITS

- Improved fish habitat
- Slower flowing water
- Long term health of vegetation near river
- Improved access to river

## IMPACTS

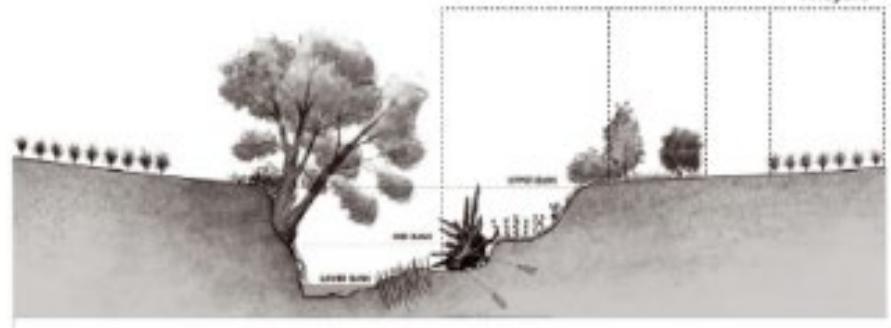
- Short term loss of vegetation near river
- Takes more space
- Can cost more

**Current Condition:**  
Concrete rubble (bank protection) in channel, steep banks.



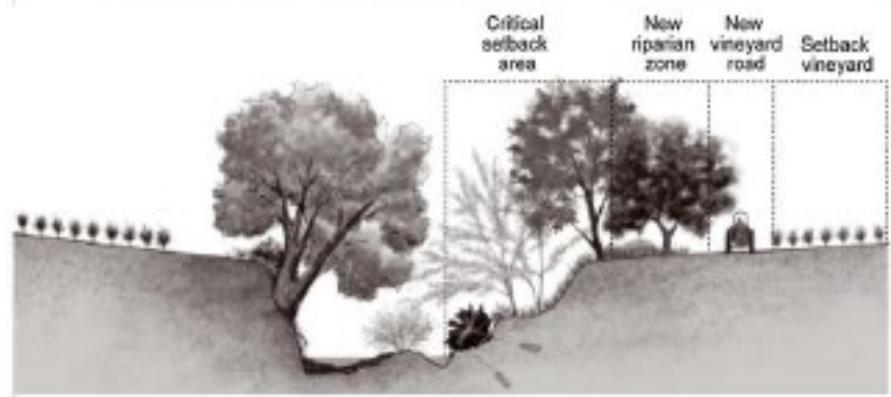
### Bank setback and floodplain bench:

Willows are staked at base of failure, root wads from fallen trees are anchored to bed, vegetation is planted on banks.



### Revegetation, and habitat complexity:

Bank is revegetated, riparian trees are mature, channel is widened and complex.



# NON-STRUCTURAL MEASURES



## OPTIONS

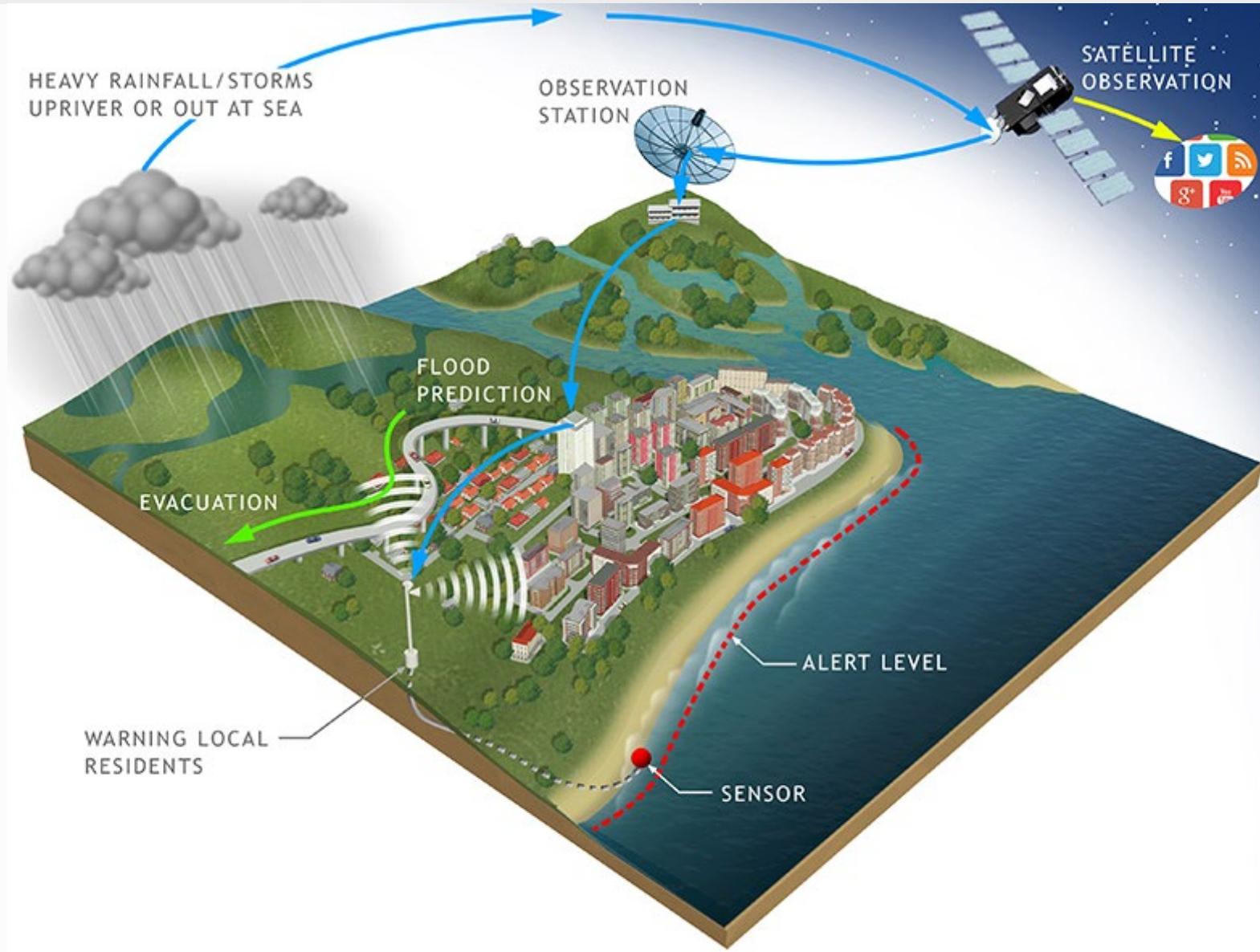
- Flood warning systems
  - Emergency preparedness plans
  - Evacuation plans
  - Risk communication
- Retrofits to buildings
  - Flood proofing
  - Elevating
- Land use
  - Zoning
  - Buyouts/acquisition

## BENEFITS

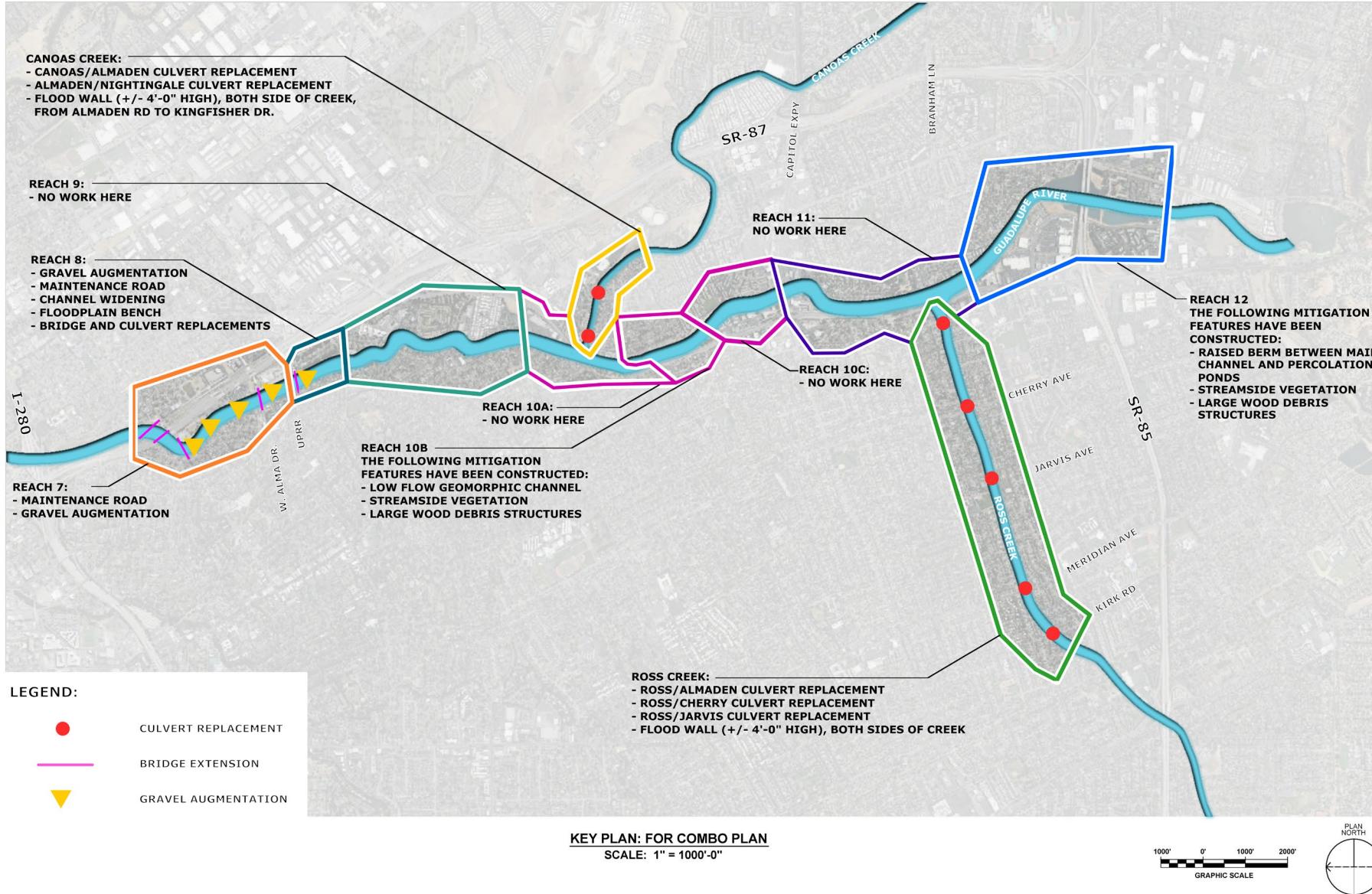
- Less maintenance
- Resilient/adaptable to changing conditions
- Less risk of flooding after project completed

## IMPACTS

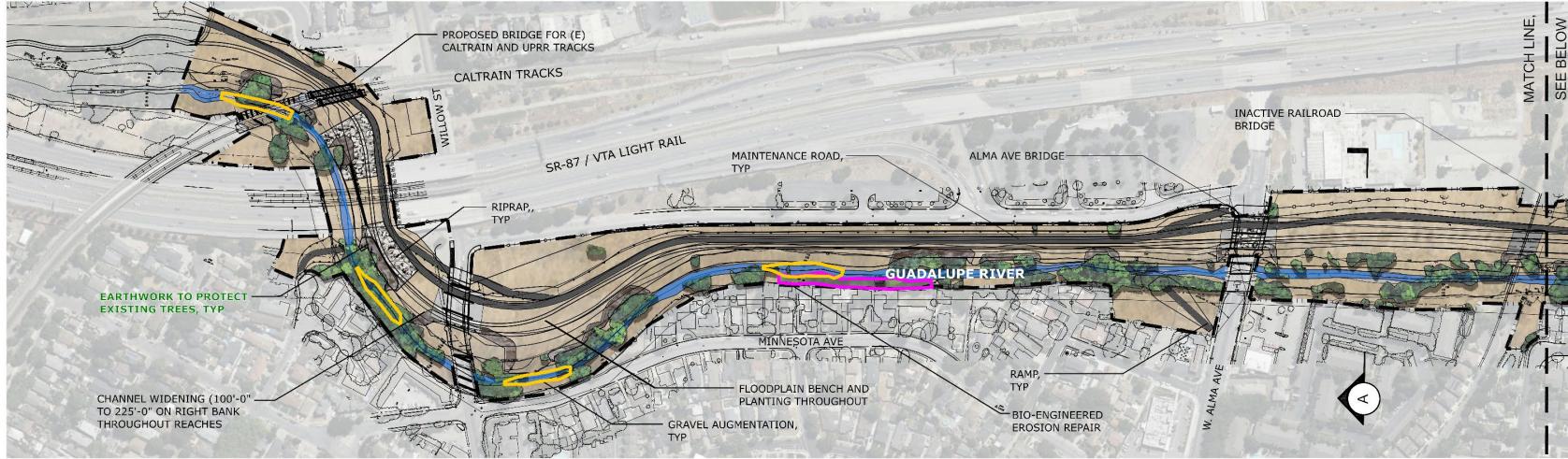
- Change the neighborhood and to buildings
- Change to community fabric
- Cost to local partners, property owners



# OVERVIEW OF THE COMBO PLAN ALTERNATIVE



# DETAILS OF COMBO PLAN WITHIN REACHES 7 AND 8

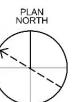


PLAN - REACH 7

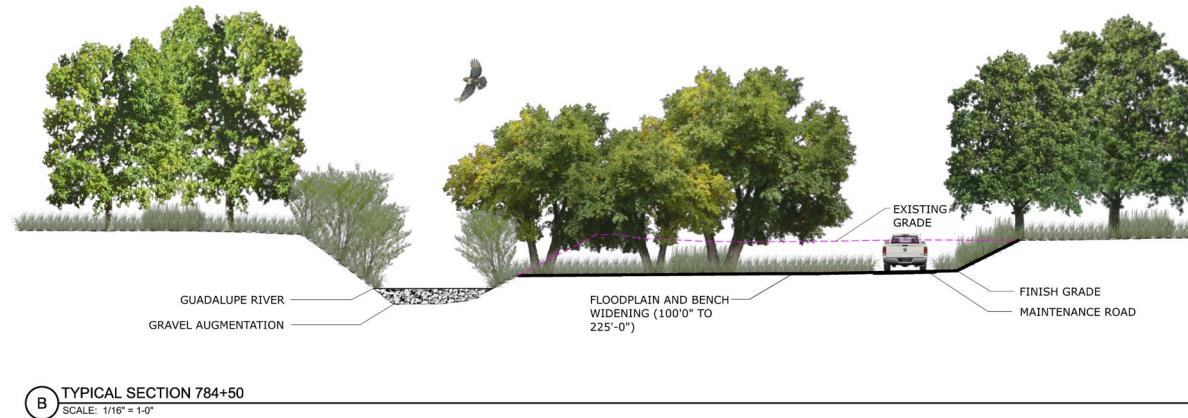
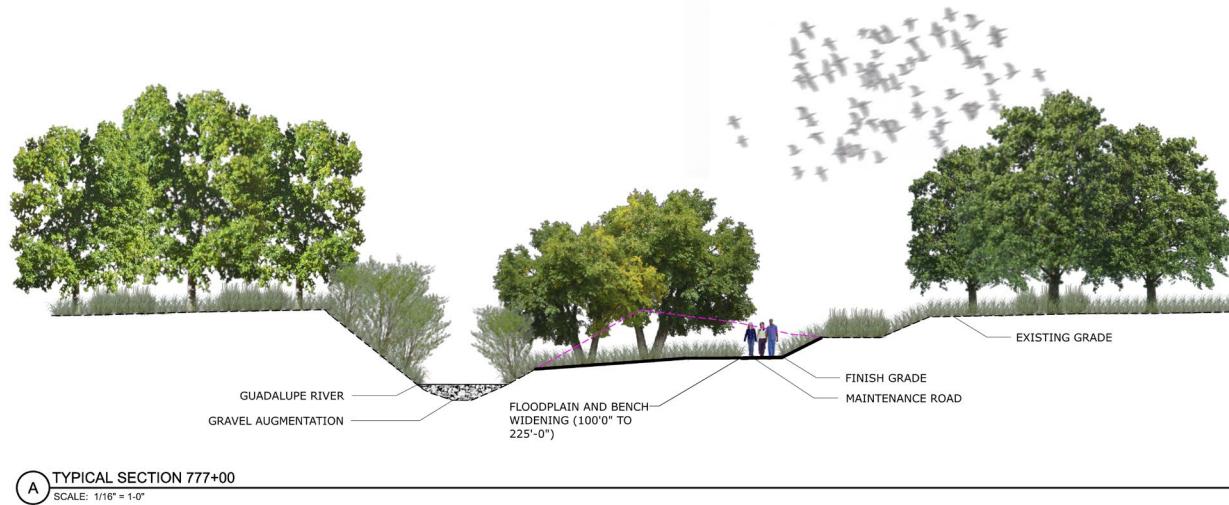


PLAN - REACH 8

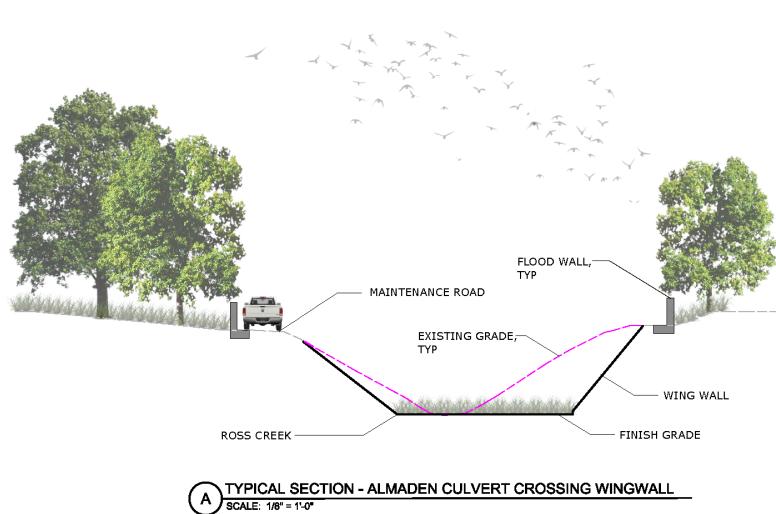
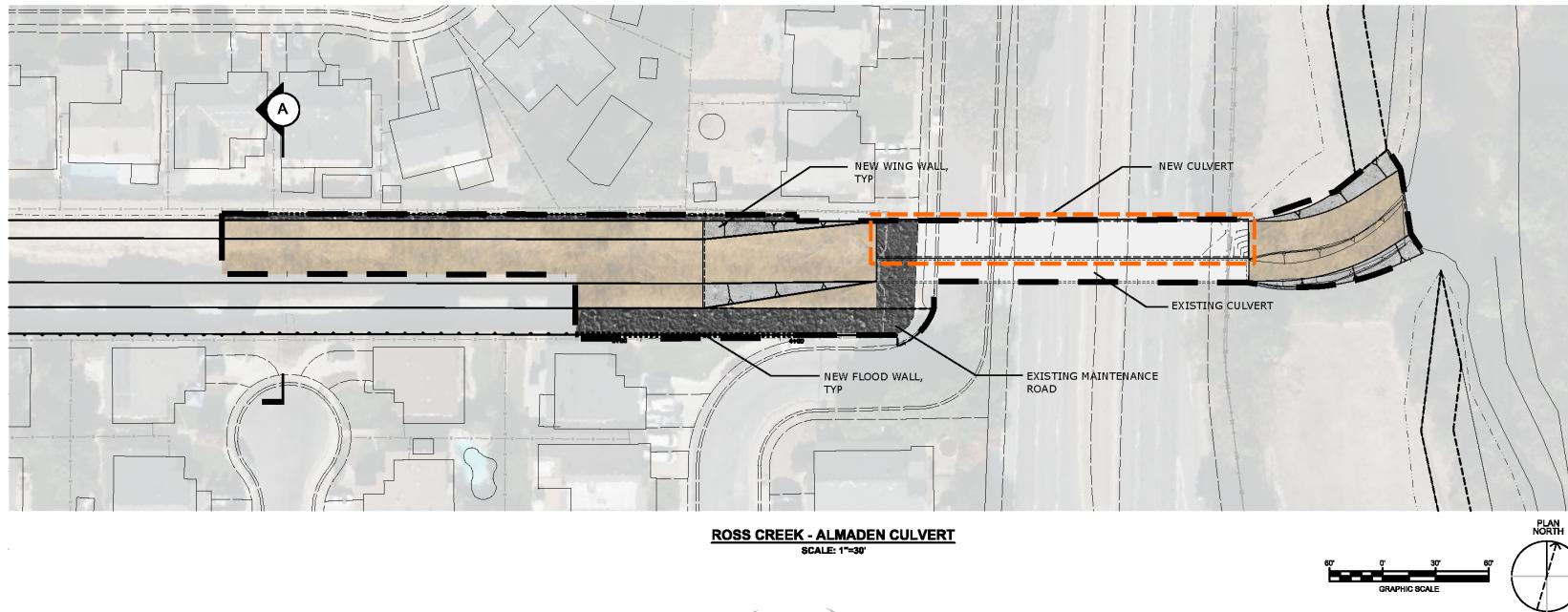
150' 0' 150' 150'  
SCALE: 1"-150'-0"



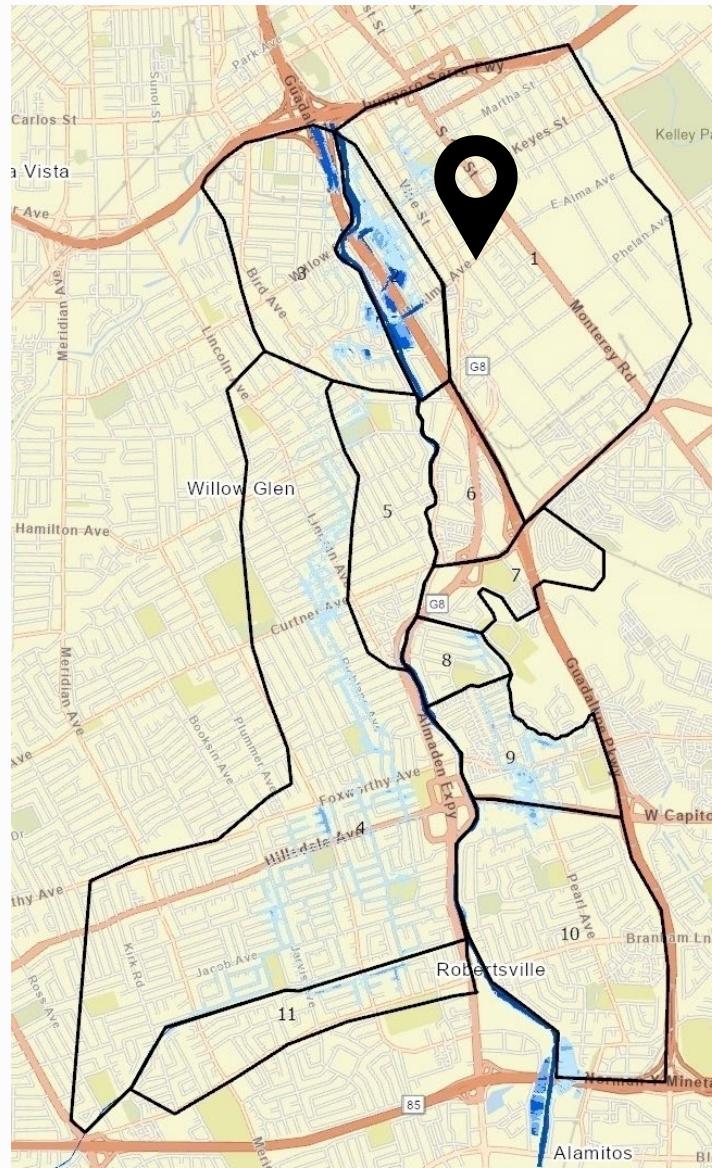
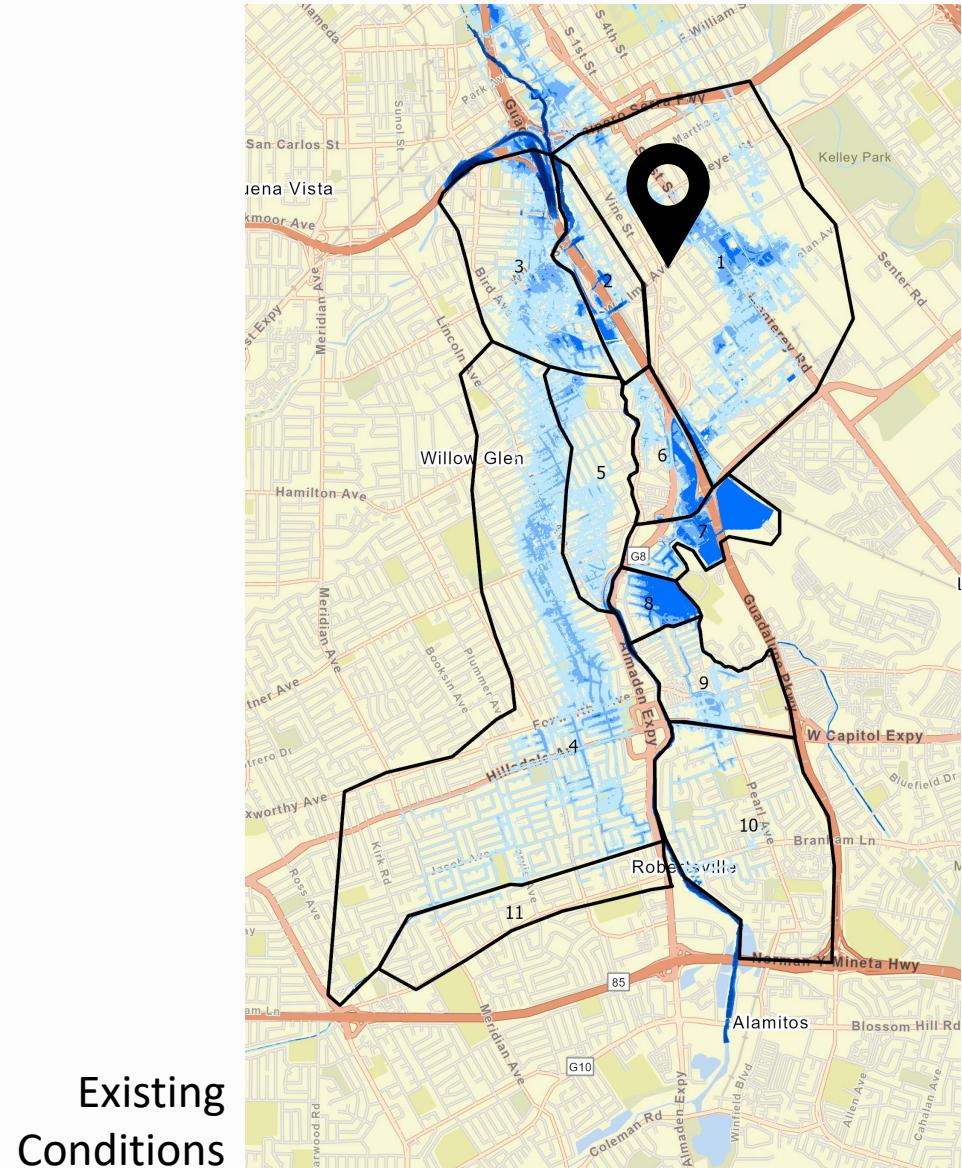
# PROFILE VIEW OF COMBO PLAN WITHIN REACHES 7 AND 8



# DETAILS OF COMBO PLAN WITHIN ROSS CREEK REACH



# PROPOSED PLANS



We are here.

Flood Depth (feet)

0.1 - 1.5
1.6 - 3
3.1 - 9
9.1 - 15
15.1 - 29.5

# ENVIRONMENTAL JUSTICE POLICY & MOVEMENT



The fair treatment and meaningful involvement of *all people regardless of race, color, national origin, or income with respect to the development, implementation & enforcement of environmental laws, regulations and policies.*

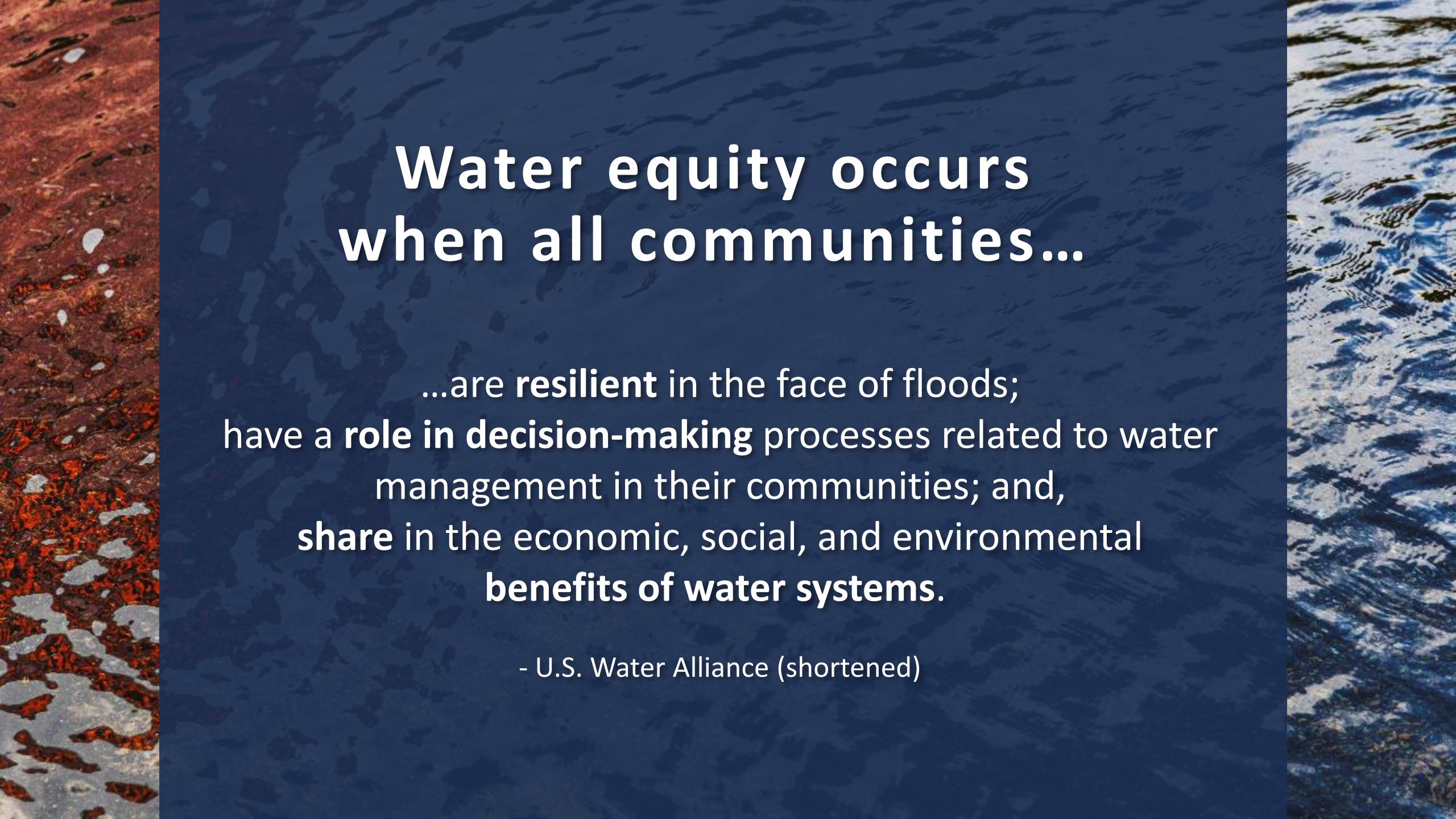
- Executive Order (EO) 12898 (1994)
- WRDA (2020)
- EO 13985 (2021)
- EO 14008 (2021)
- EO 14031 (2021)
- EO 14035 (2021)
- Justice40 Initiative

# ENVIRONMENTAL JUSTICE POLICY & MOVEMENT



ASA(CW) Michael Connor's memo  
on "*Implementation of Environmental  
Justice and the Justice40 Initiative*"

**"Goal for 40 percent of Federal  
investments to go to disadvantaged  
communities and to develop plans for  
engaging with communities."**



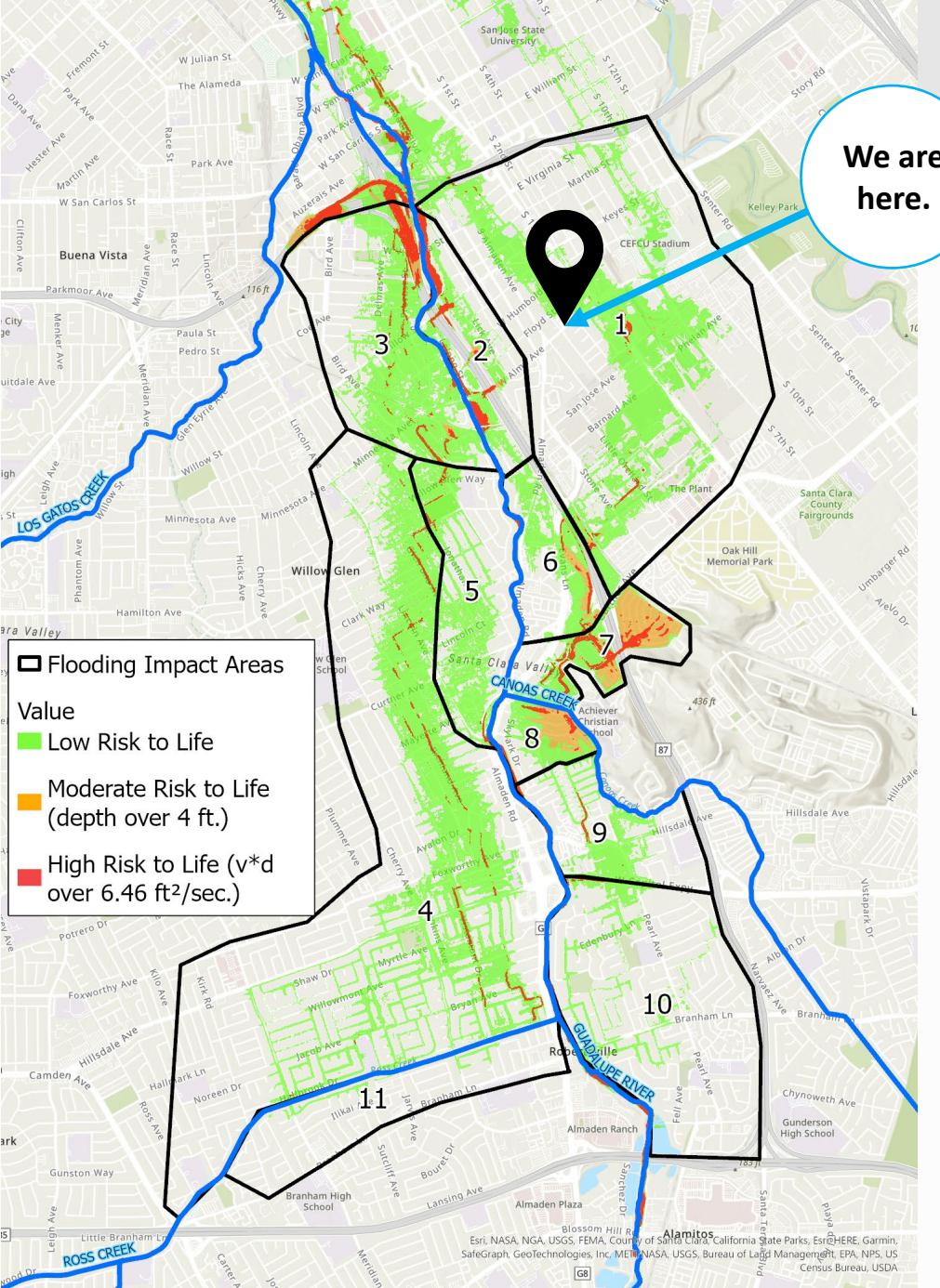
# Water equity occurs when all communities...

...are **resilient** in the face of floods;  
have a **role in decision-making** processes related to water  
management in their communities; and,  
**share** in the economic, social, and environmental  
**benefits of water systems.**

- U.S. Water Alliance (shortened)



# LIFE SAFETY



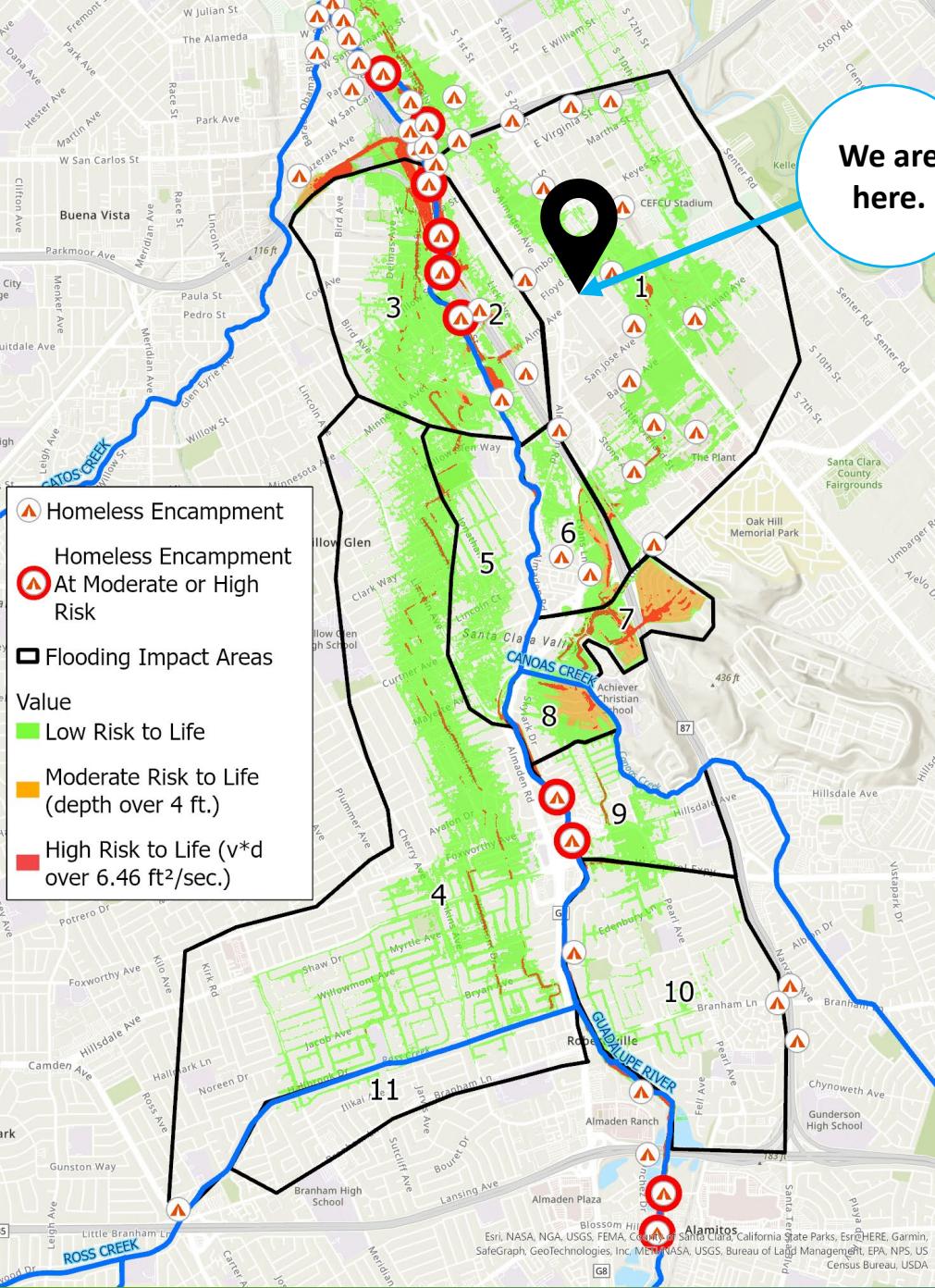
- Pedestrians caught in flood water
- Housing damaged by flood water
- Vehicles caught in flood water
- Areas of concern: flooding impact areas 2, 3, 6, 7, and 8

Objective is to **reduce risk to life loss**. Communicating risk is part of managing flood risk, so that people at risk know to evacuate during a flood. Do not attempt to drive through flooded underpasses and streets.

*Map of risk to life during a flood if no project was implemented.*



# LIFE SAFETY

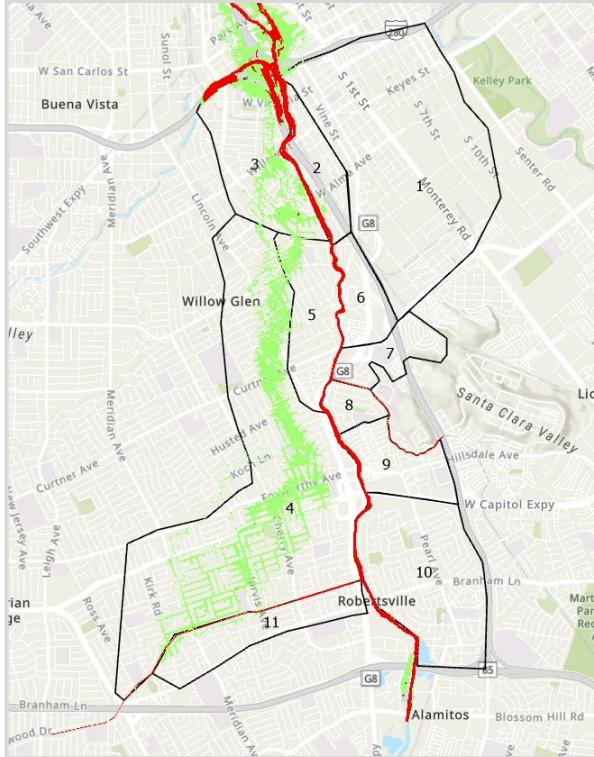


## Existing Conditions, Flood Hazard, and Encampments

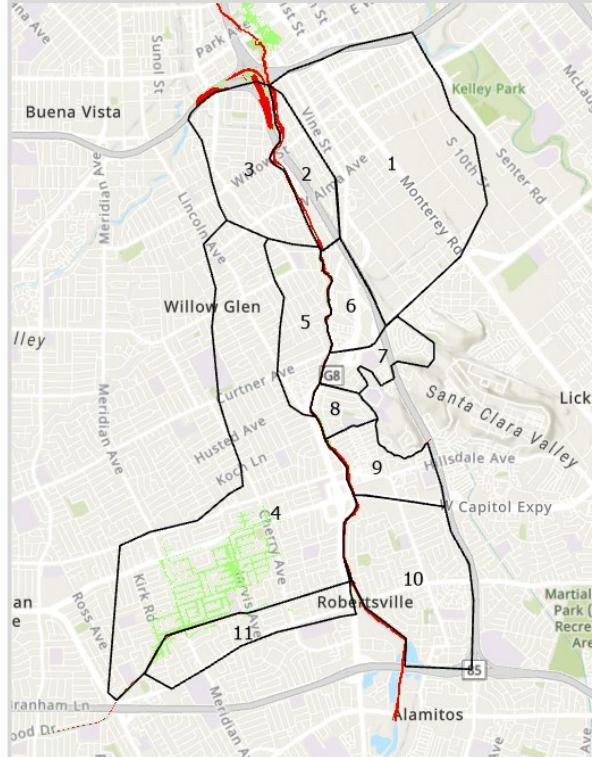
- 10 encampments in high life loss risk area.
- 134 people at risk.
- High number of encampments within the San José area, makes it difficult for emergency responders to get to them all.

There is a large population of unhoused people living in encampments in and along the channel where flood flows move fast and water is deep.

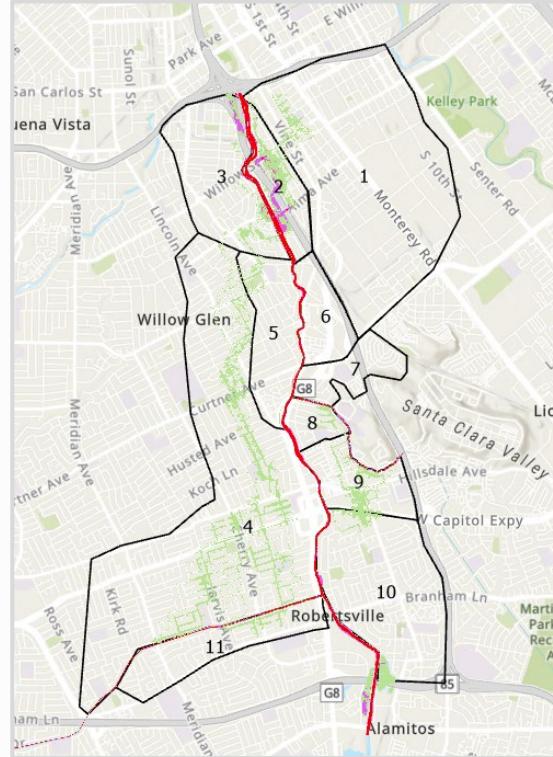
# LIFE SAFETY RISKS FOR EACH PLAN



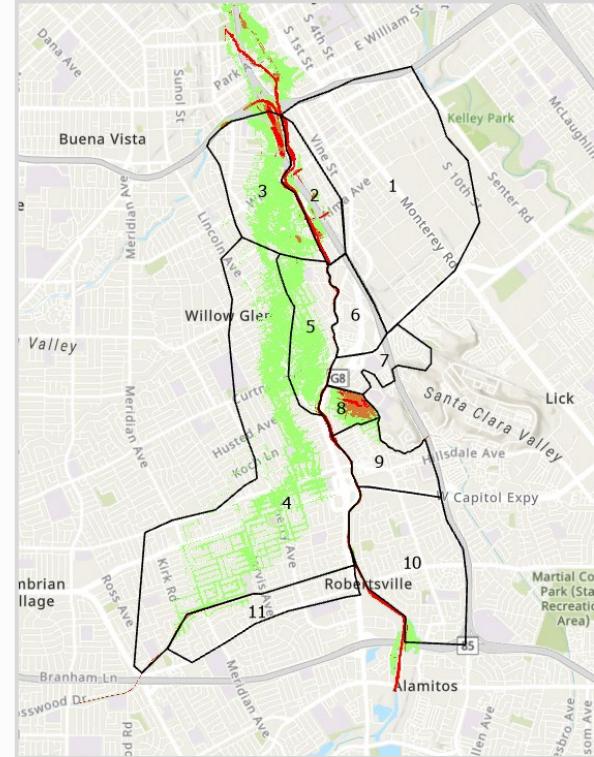
Valley View



Bypass



Combo



Lower Scope

Low Risk to Life

Moderate Risk to Life  
(flood depths over 4 ft.)

High Risk to Life  
(Flood velocity x depth  
over 6.46 ft<sup>2</sup>/second)

# ENVIRONMENTAL CONSIDERATIONS



*Existing vegetation in Reach 7  
of the Upper Guadalupe River*



*Steelhead Trout  
Photo Credit: National Marine Fisheries Service*

## Ecological Environment

- Threatened and Endangered Species
- Vegetation
- Water Quality
- Wildlife

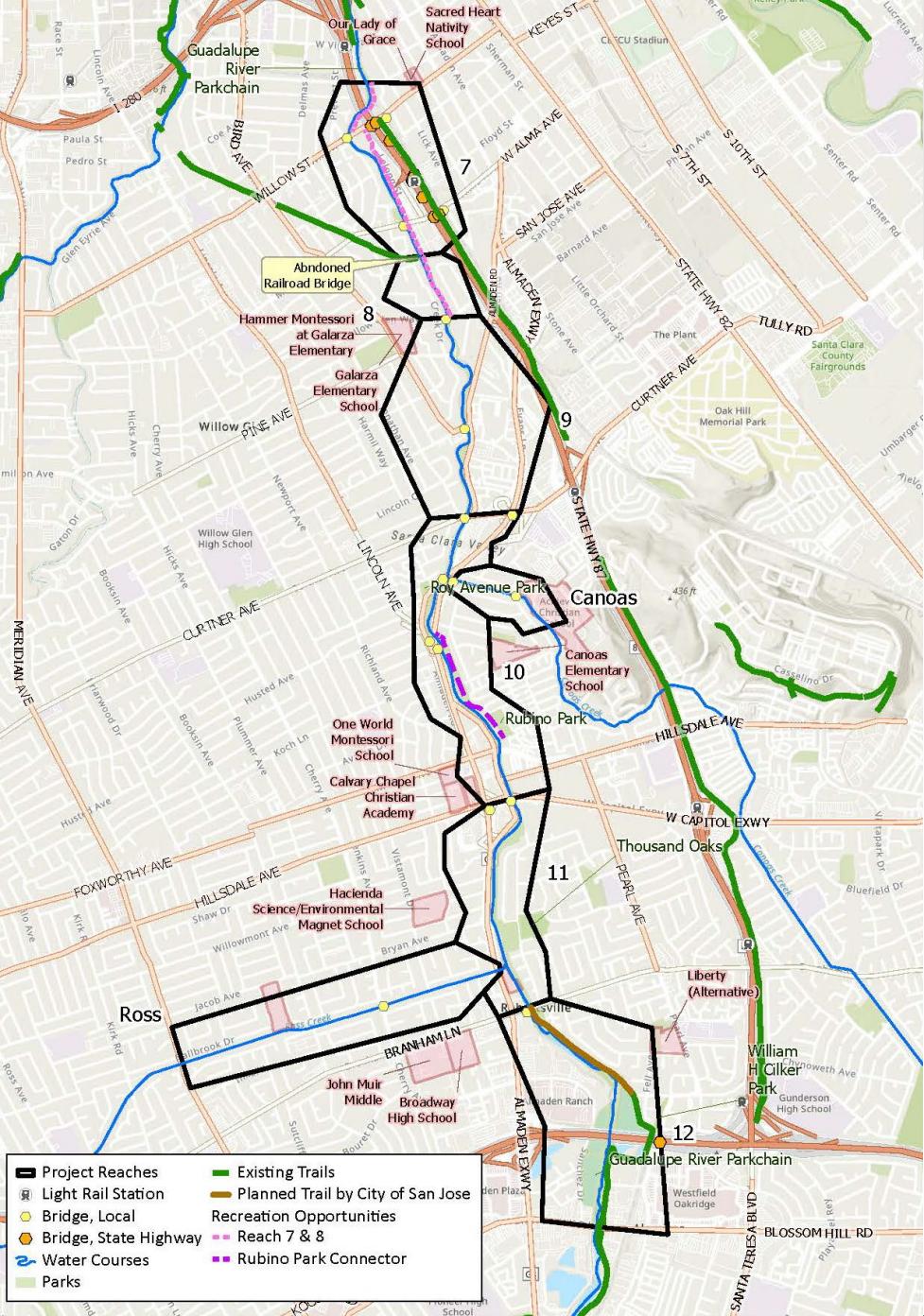
- Guadalupe River is critical for steelhead fish recovery in San Francisco Bay
- Shade from vegetative cover is limited and dominated by non-native vegetation, which **increases** the value of the existing vegetation due to scarcity.
- Vegetative cover regulates **water temperature** and **provides food** for fish species.
- Any vegetation loss must be replaced as part of project implementation

# TRIBAL AND CULTURAL RESOURCES



- USACE and Valley Water are in the process of identifying cultural resources within the project area.
- Cultural resources include Native American cultural sites or historic resources along the Upper Guadalupe River.
- The team has obtained a consultation list from the Native American Heritage Commission. Tribal input will help to determine ways to mitigate impacts to Native American cultural resources.
- USACE is consulting with the following Bay Area Native American tribes:
  - The Amah Mutsun Tribal Band
  - Amah Mutsun Tribal Band of Mission San Juan Bautista
  - Indian Canyon Mutsun Band of Costanoan
  - Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
  - North Valley Yokuts Tribe
  - The Ohlone Indian Tribe
  - The Confederated Villages of Lisjan
  - Tamien Nation
  - Rumsen Am:a Tur:atj Ohlone





# RECREATION



## Potential Trail Additions

- Trails on maintenance roads
- Improve connectivity to other trails and bikeways
- Provide loops for community members
- Observation/access points to the river.

# RECREATION



Guadalupe River Trail will connect trail users to the corridors natural setting.



*Current passive space located between Virginia St. and Willow Ave.*



Opportunities to work with the City of San José to work on rails to trails conversion.

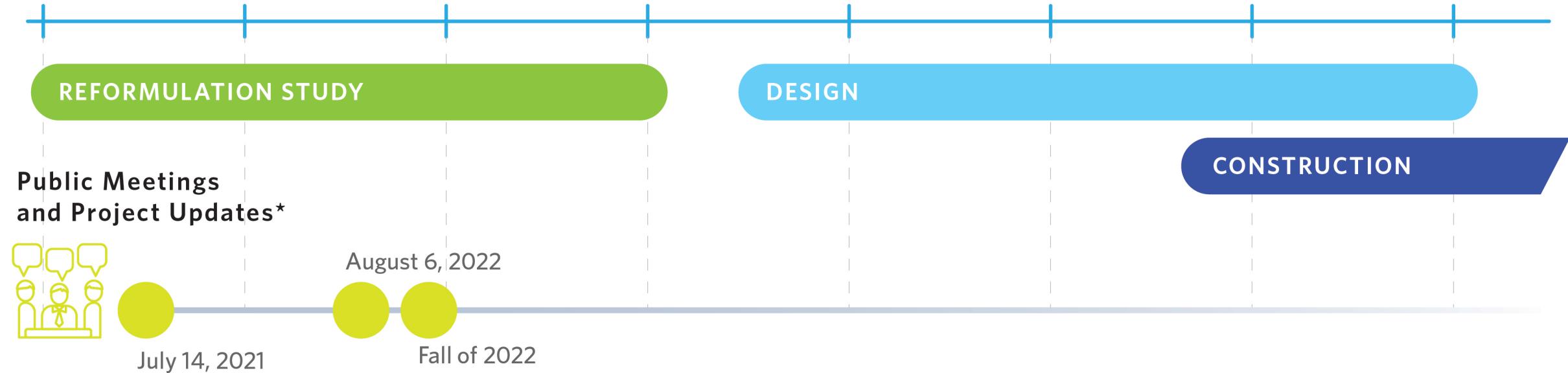
Opportunities for passive use and enjoyment will be incorporated into the trail elements along Guadalupe River.

# PROJECTED TIMELINE & NEXT STEPS



## Calendar Years\*

2021                    22                    23                    24                    25                    26                    27                    28



*\*Estimated timeline subject to change based on conditions permitting.*



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# Open House for Questions & Answers

