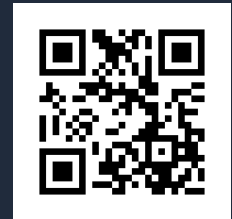




COMMUNITY ENGAGEMENT MEETING

# 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)



US Army Corps  
of Engineers®

# 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



# 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



Valley Water



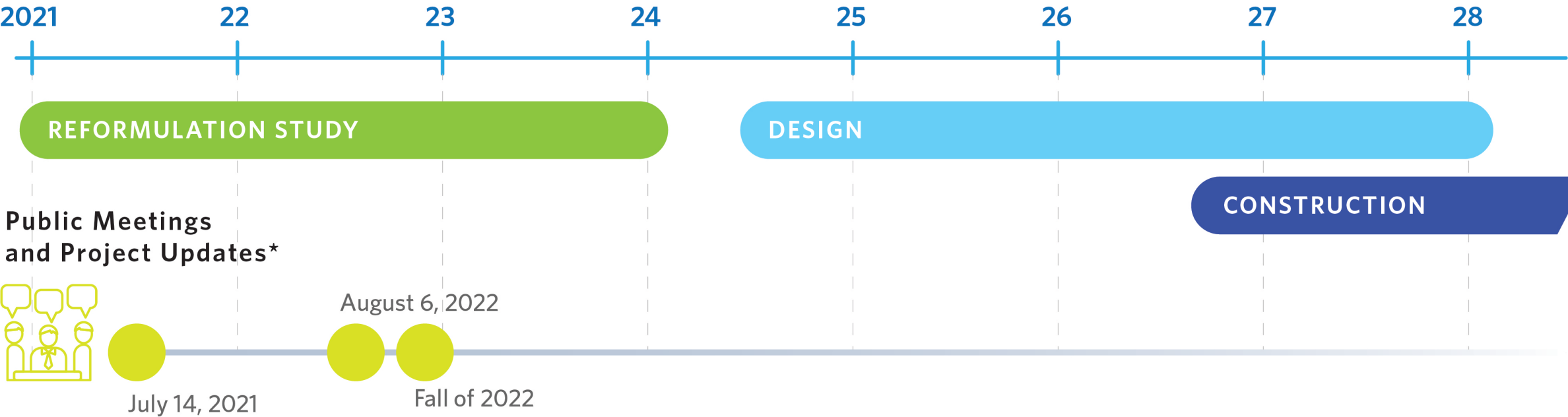
US Army Corps  
of Engineers



# PROJECTED TIMELINE

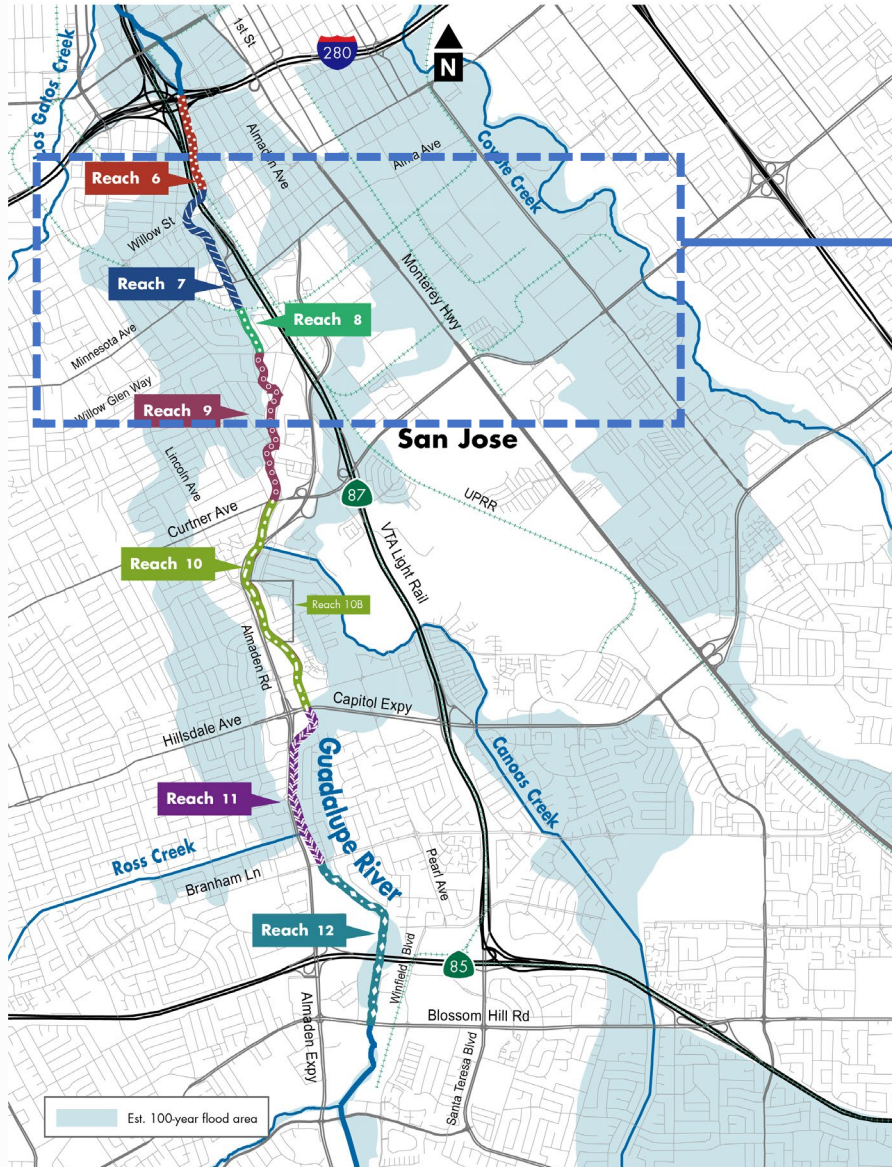


## Calendar Years\*



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

# PROJECT LOCATION



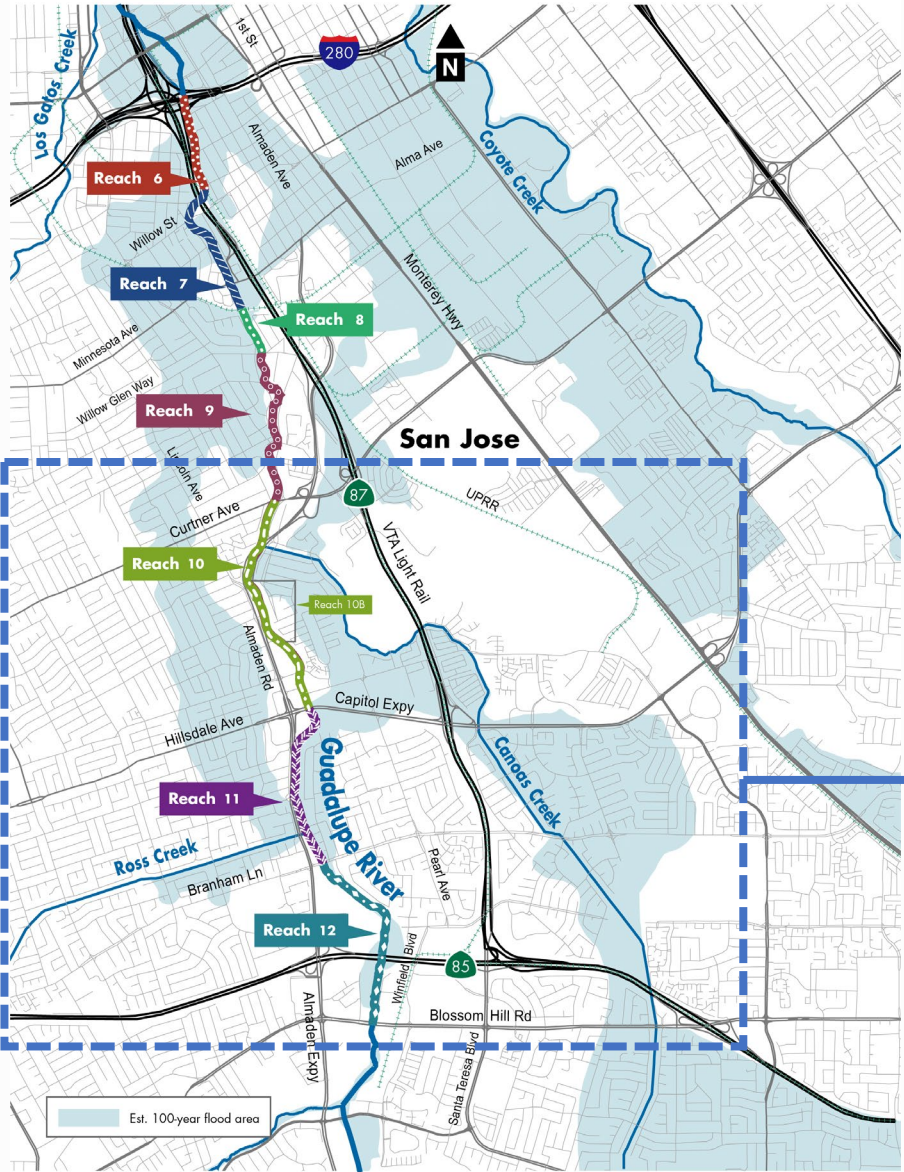
## Reaches 7 & 8



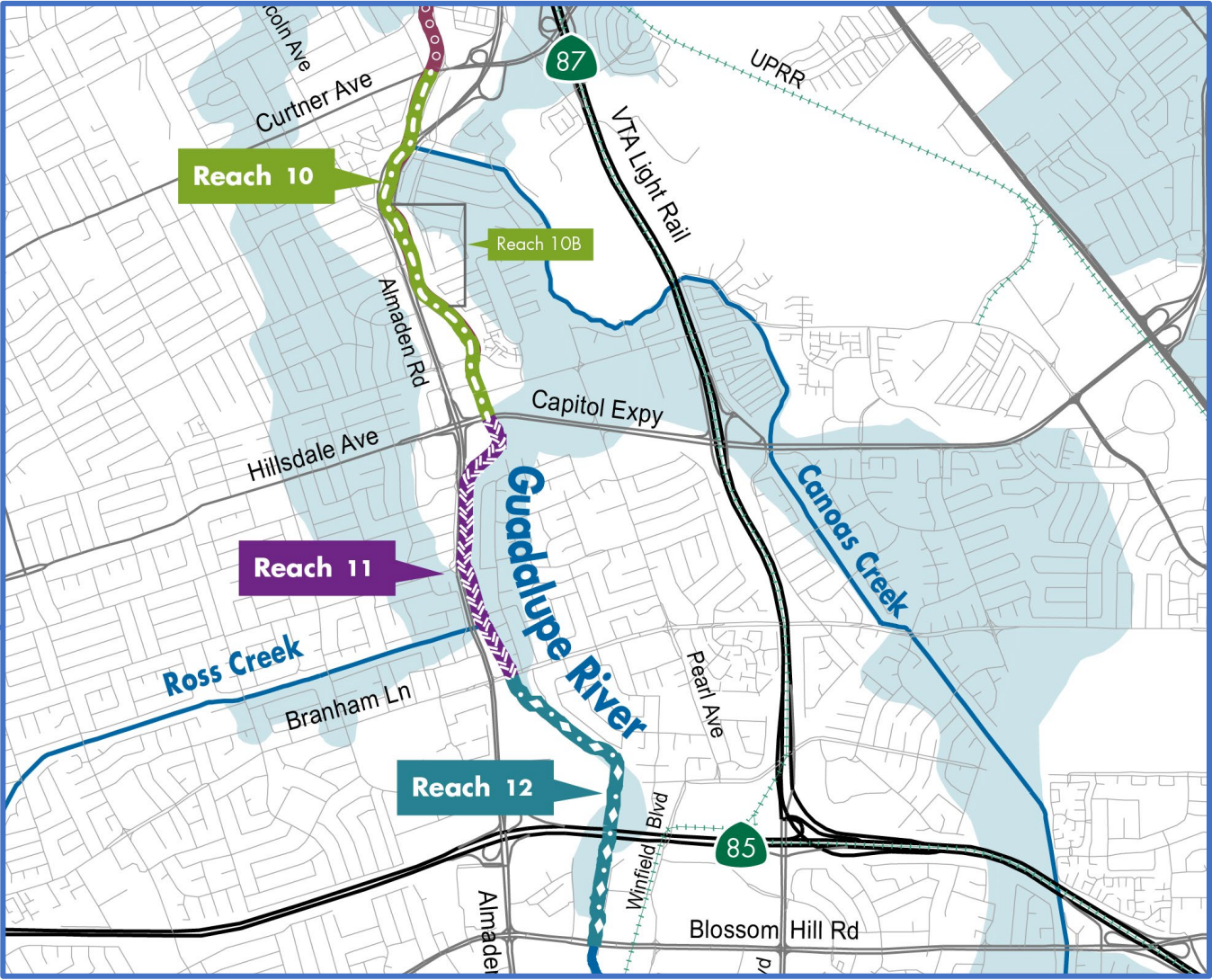
- Upper Guadalupe River is divided into 7 reaches.
- 3 reaches have been completed.
- Current project focuses on **reaches 7 & 8** as well as **Canoas and Ross Creeks**.
- Reaches 7 & 8 are located from Willow Street to Willow Glen Way in San José.



# PROJECT LOCATION



Canoas and Ross Creeks, which flow into Guadalupe River





# REFORMULATION STUDY AND GENERAL REEVALUATION



*Willow Street railroad underpass*

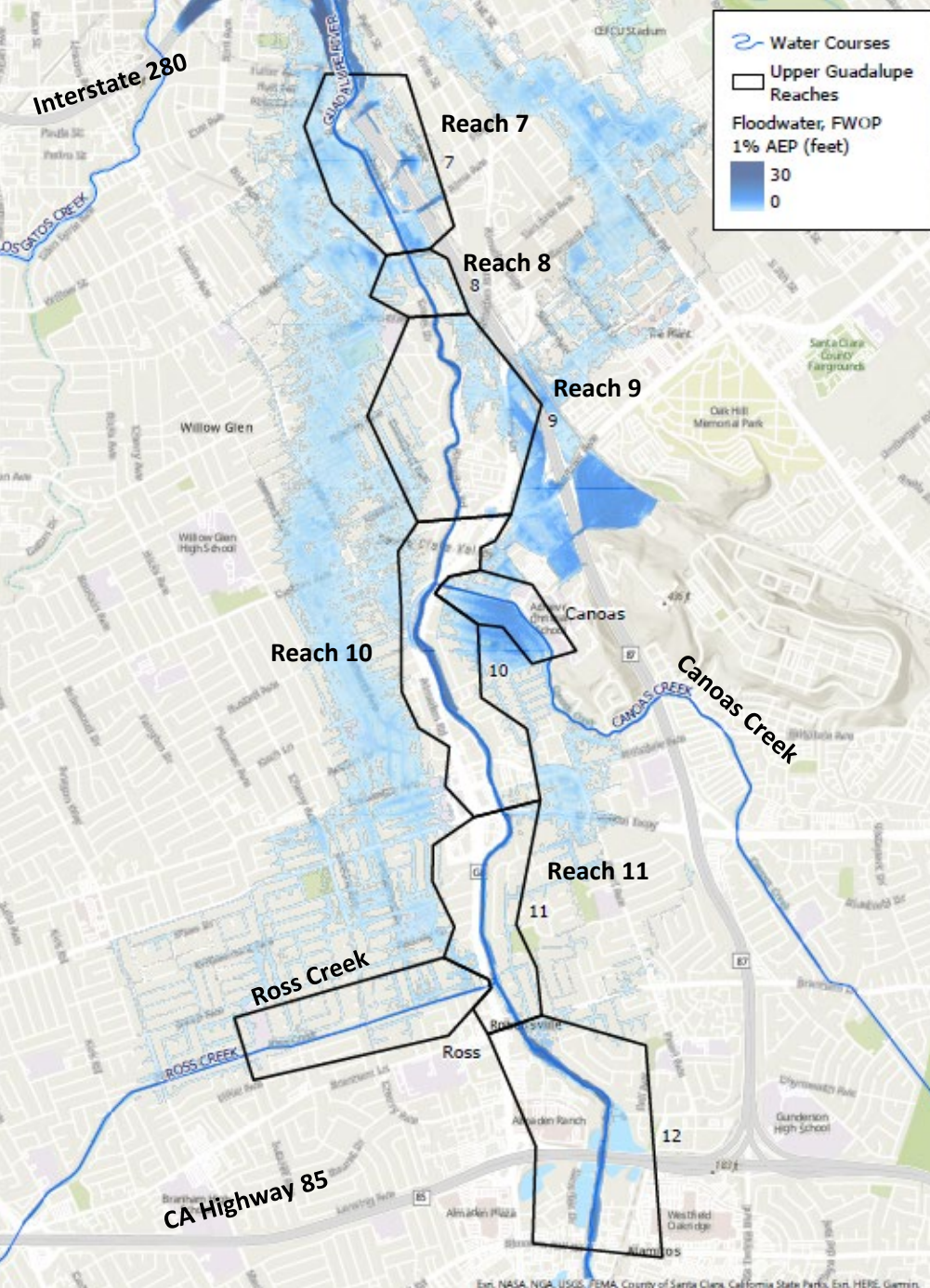


*Highway 87*

1995 Flooding in Downtown San José area.

- 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



- 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



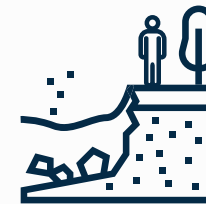
**Flood risk will remain** for people living near the river.



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



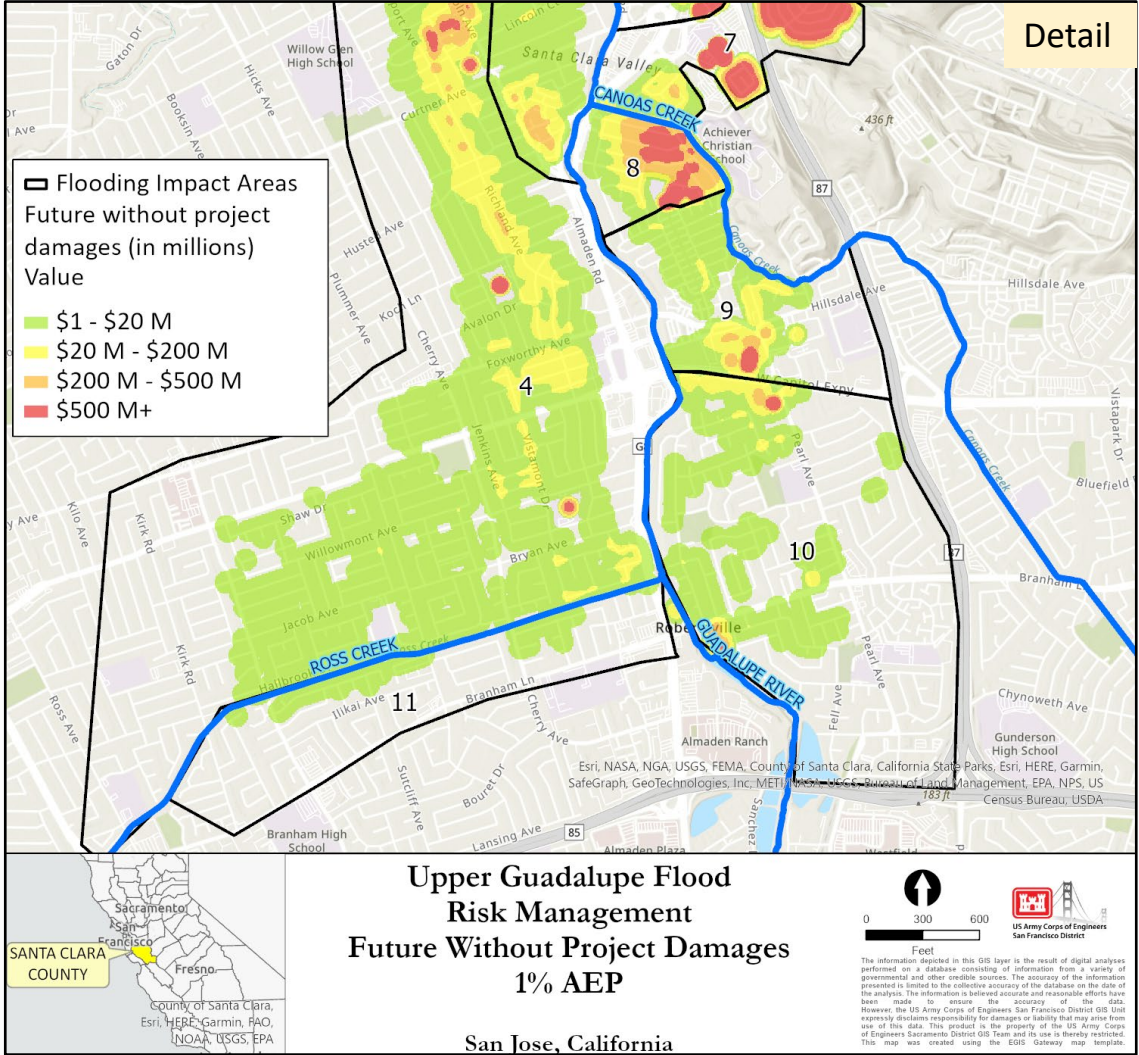
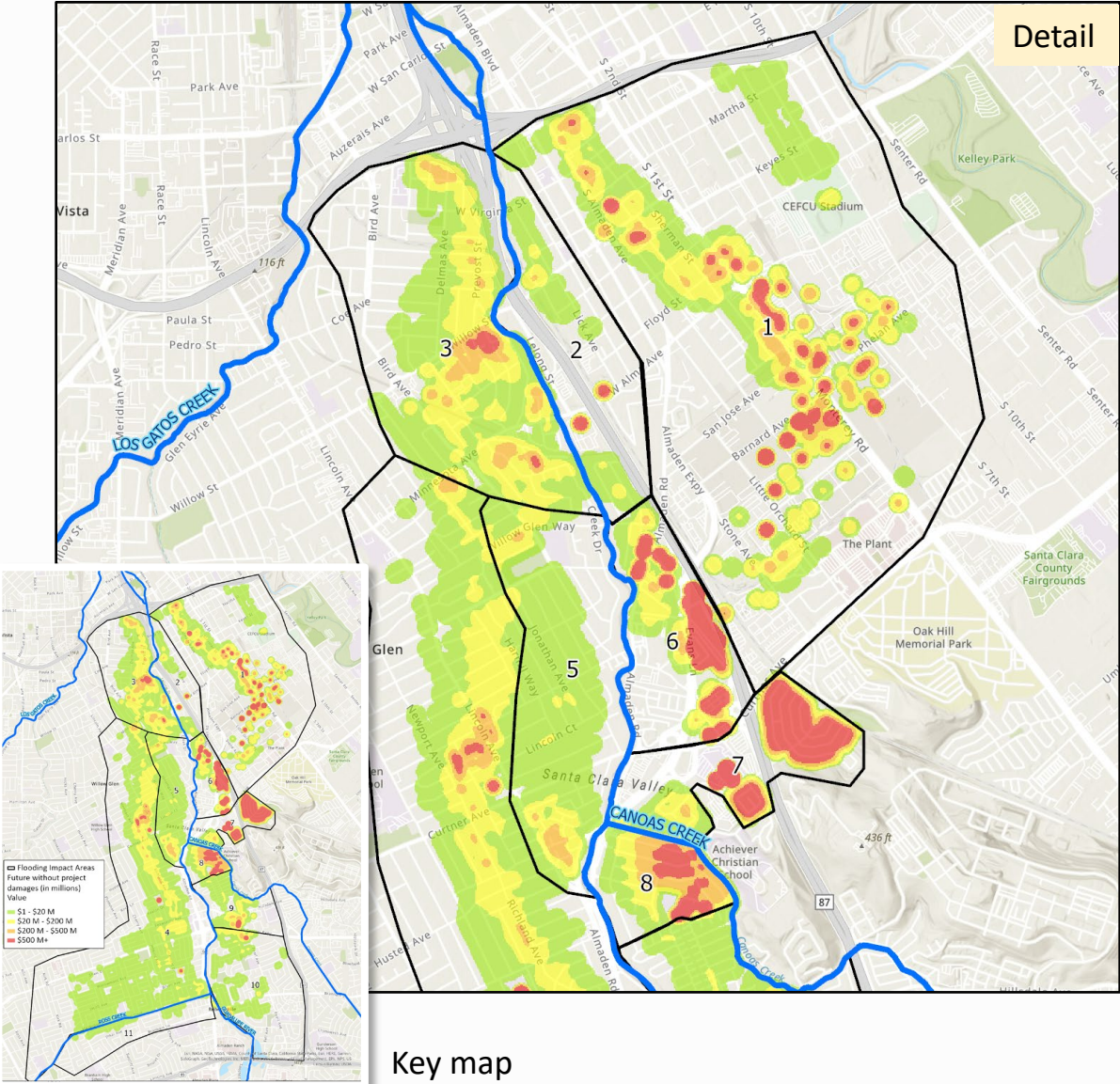
**Recreation opportunities** along the river would be from local municipalities.



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

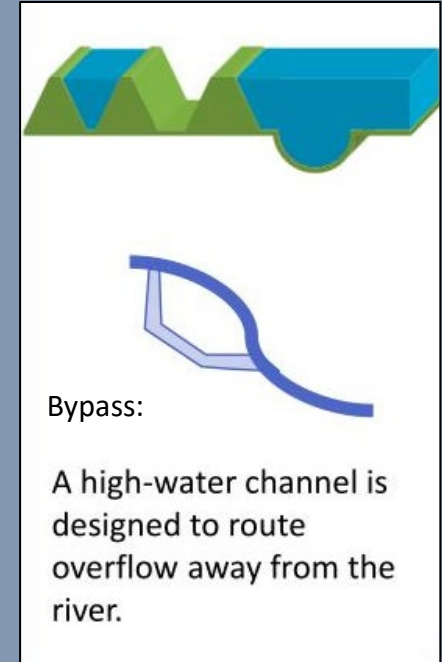
## CONSTRAINTS

- Impacts on threatened or endangered species
- Obtaining regulatory permits

## 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

# 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

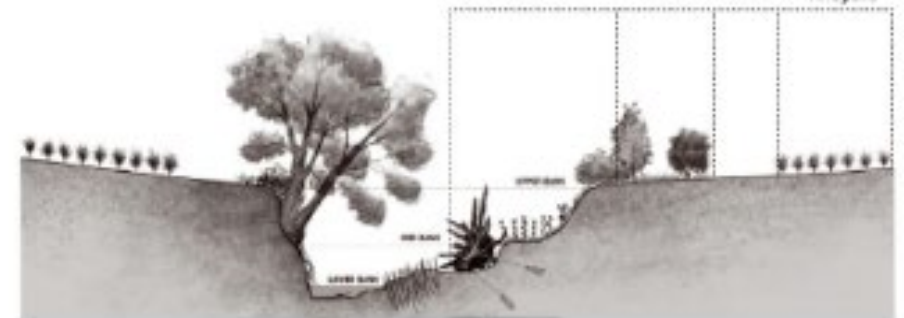
### Current Condition:

Concrete rubble (bank protection) in channel, steep banks.



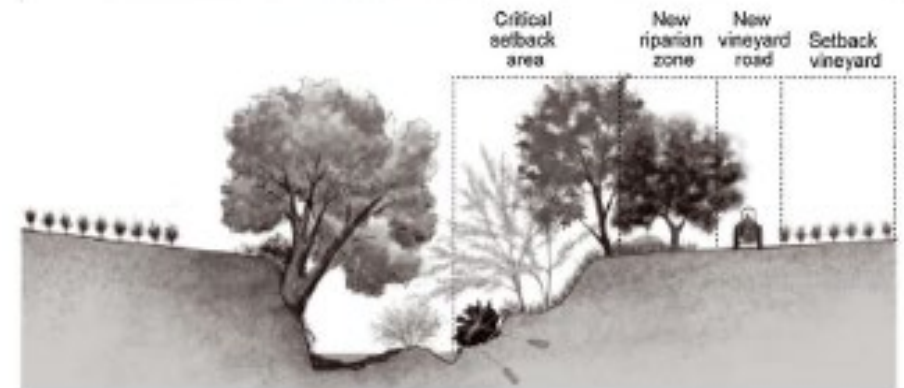
### Bank setback and floodplain bench:

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

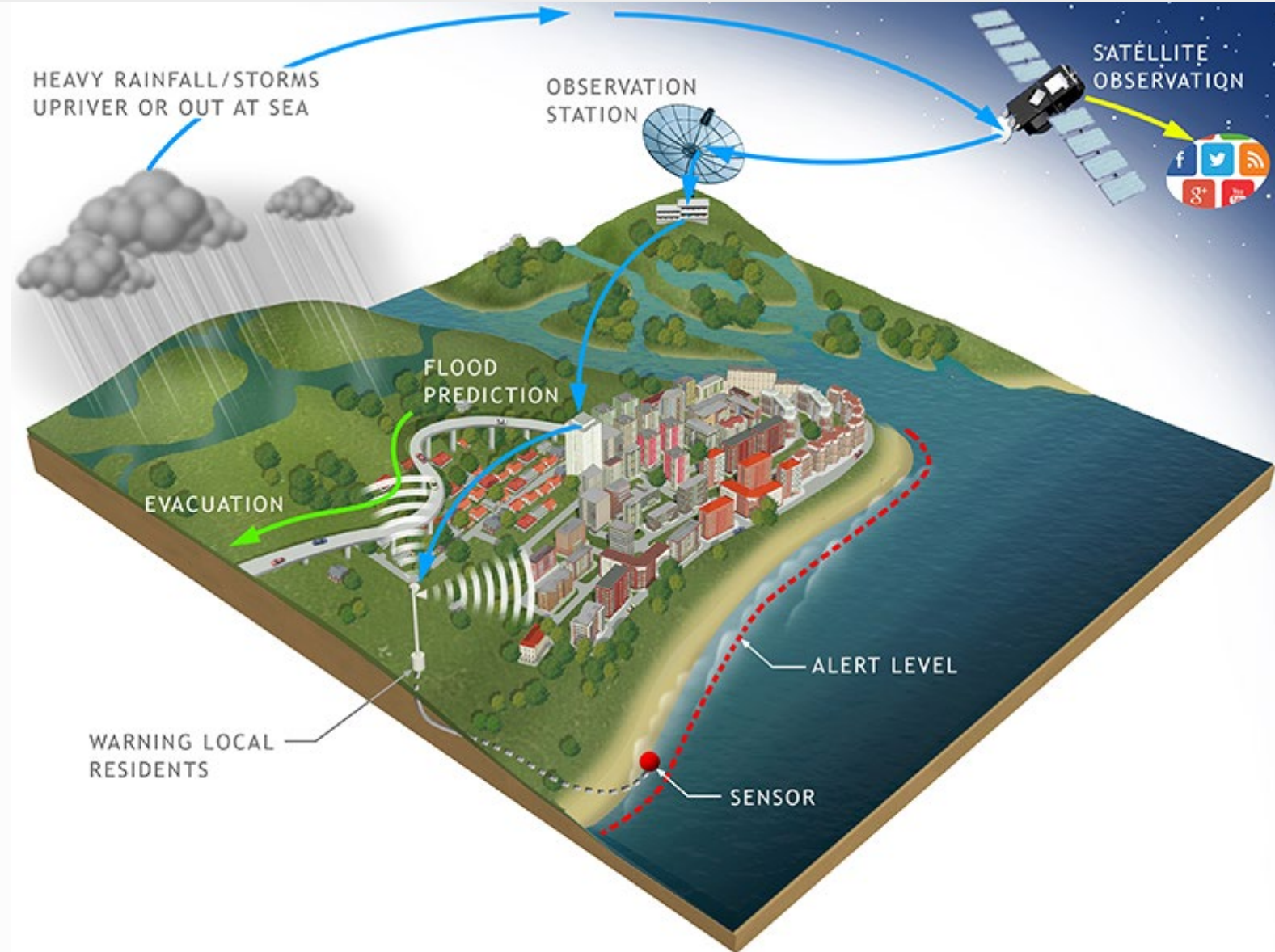
- Flood warning systems
  - Emergency preparedness plans
  - Evacuation plans
  - Risk communication
- Retrofits to buildings
  - Flood proofing
  - Elevating
- Land use
  - Zoning
  - Buyouts/acquisition

## BENEFITS

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

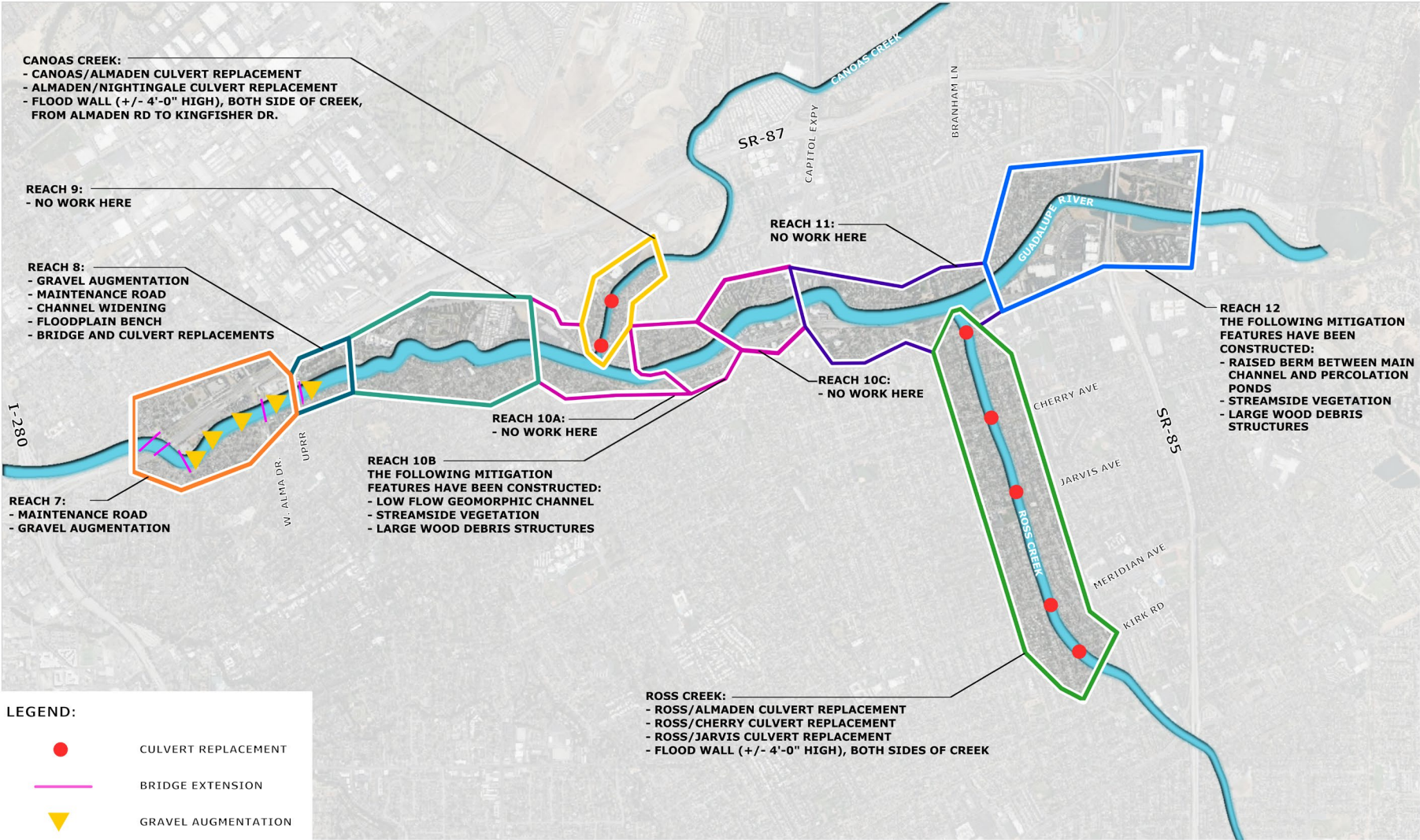
## IMPACTS

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





# OVERVIEW OF THE COMBO PLAN ALTERNATIVE

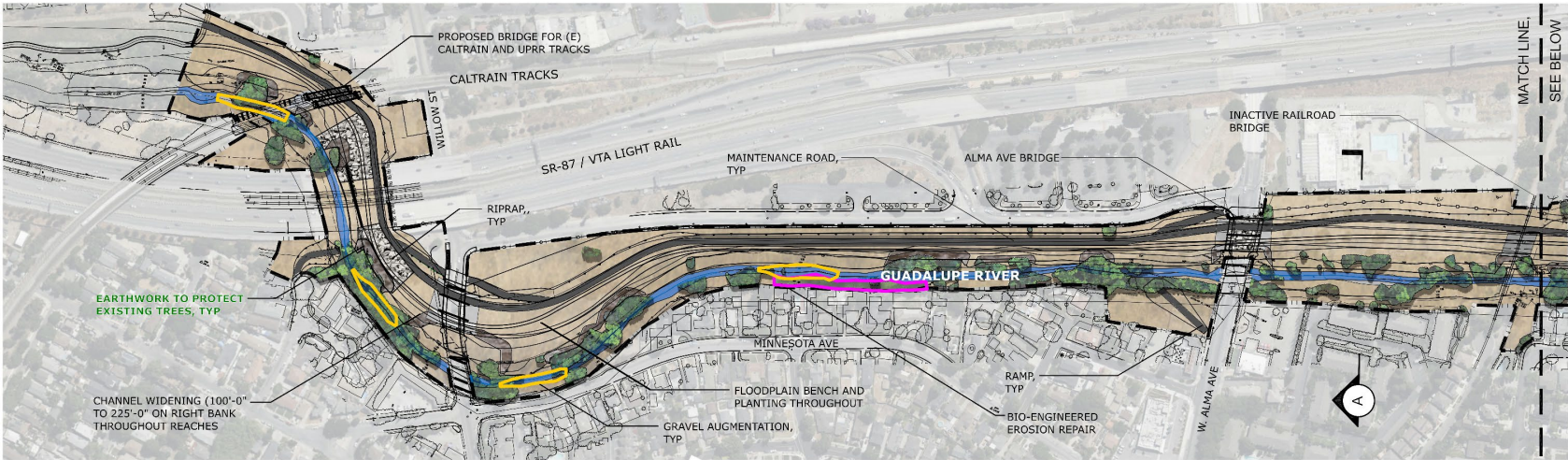


KEY PLAN: FOR COMBO PLAN  
SCALE: 1" = 1000'-0"





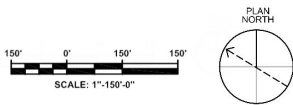
# DETAILS OF COMBO PLAN WITHIN REACHES 7 AND 8



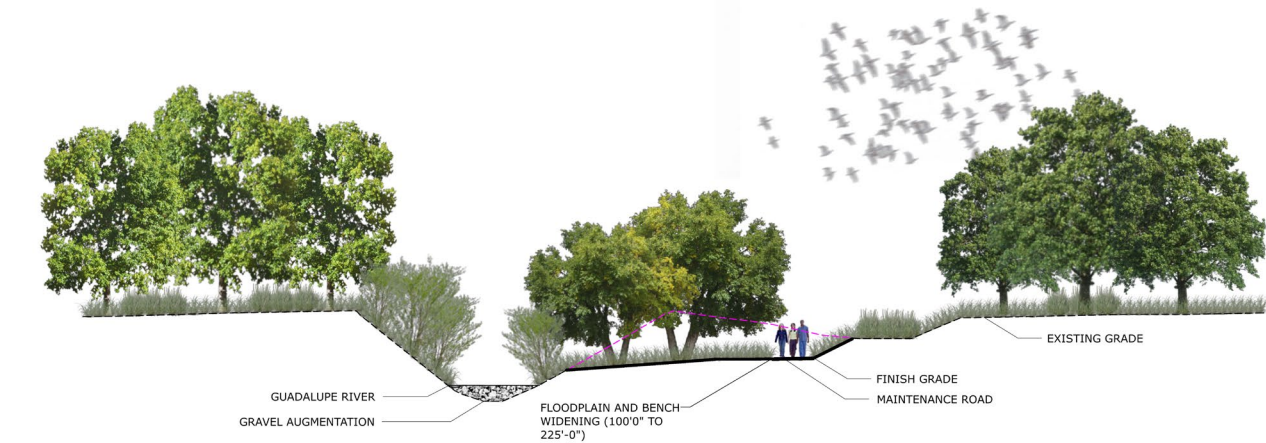
PLAN - REACH 7



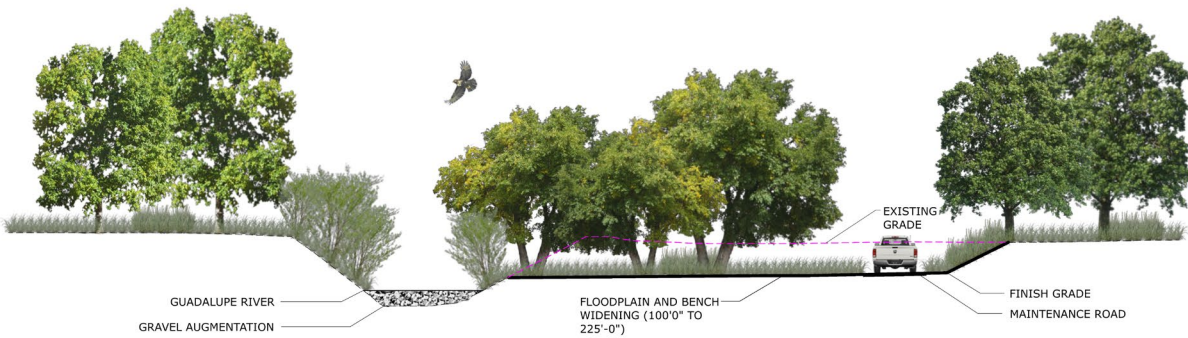
PLAN - REACH 8



# PROFILE VIEW OF COMBO PLAN WITHIN REACHES 7 AND 8



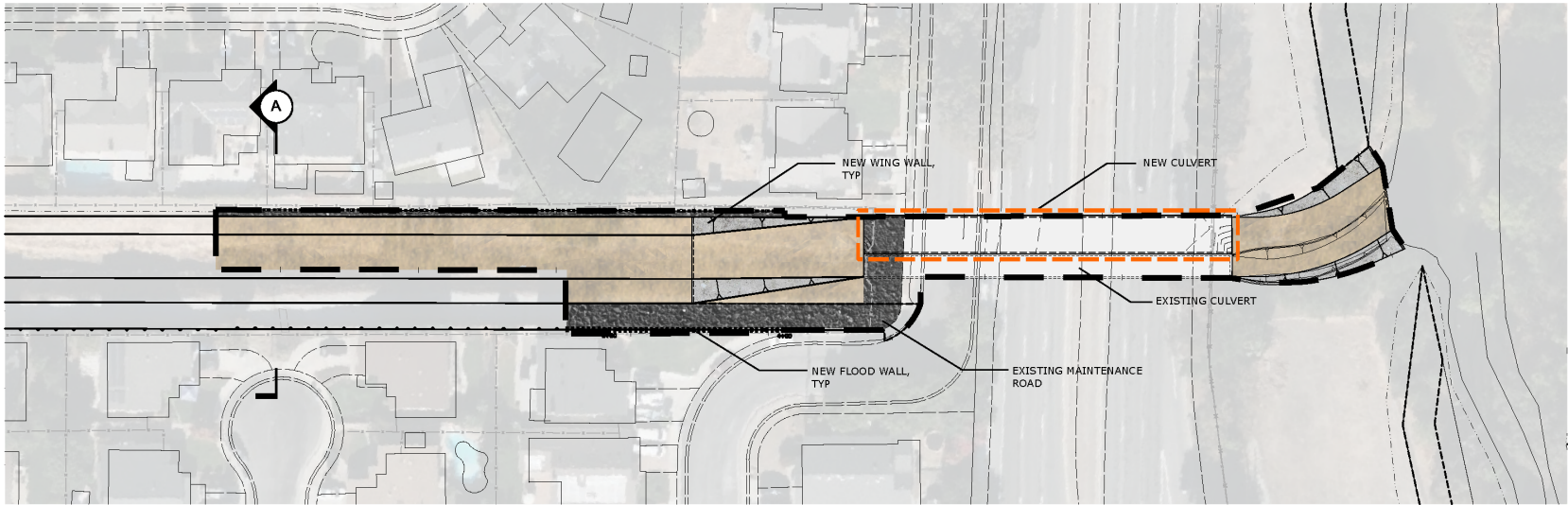
**A** TYPICAL SECTION 777+00  
SCALE: 1/16" = 1'-0"



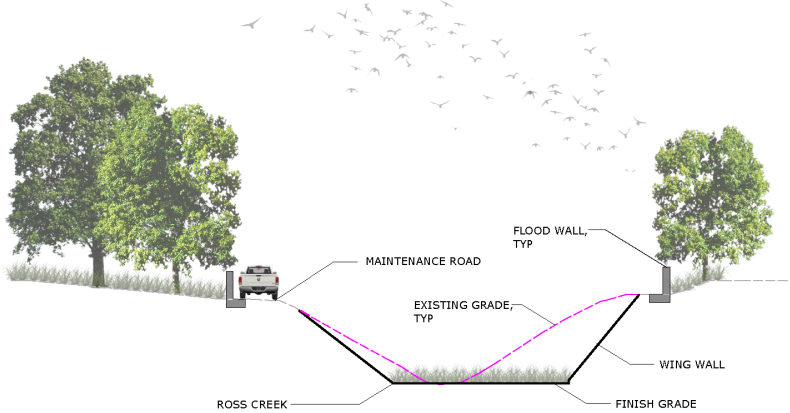
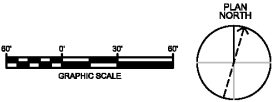
**B** TYPICAL SECTION 784+50  
SCALE: 1/16" = 1'-0"



# DETAILS OF COMBO PLAN WITHIN ROSS CREEK REACH



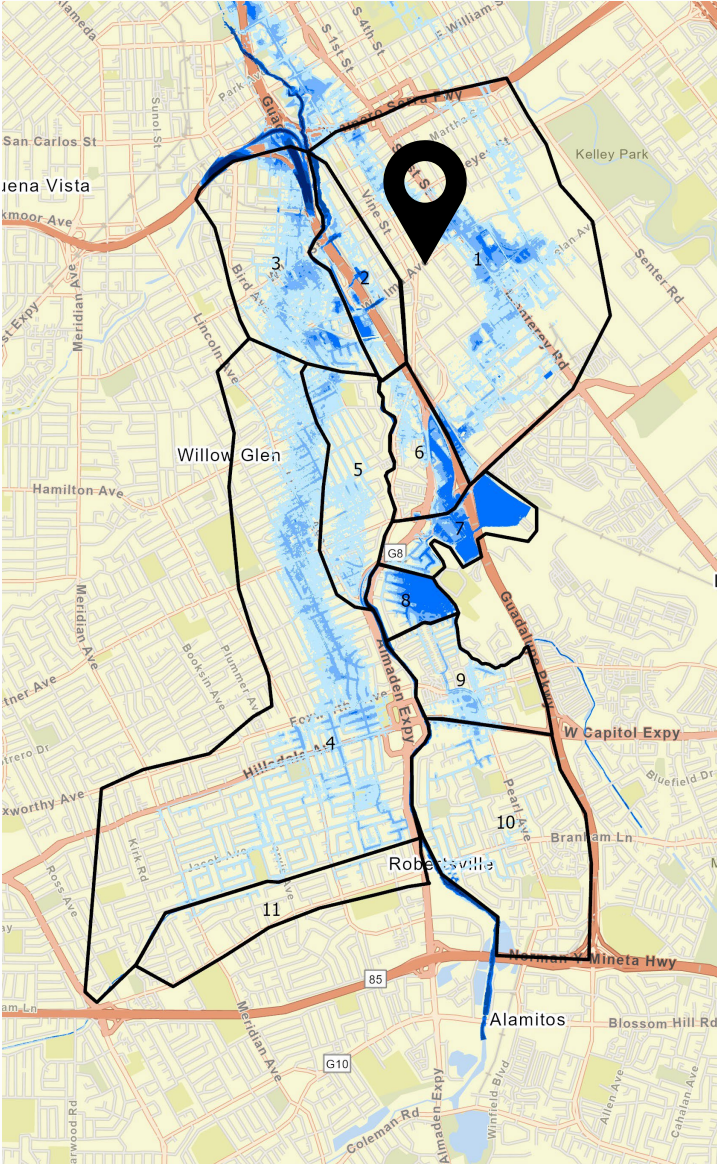
**ROSS CREEK - ALMADEN CULVERT**  
SCALE: 1"=30'



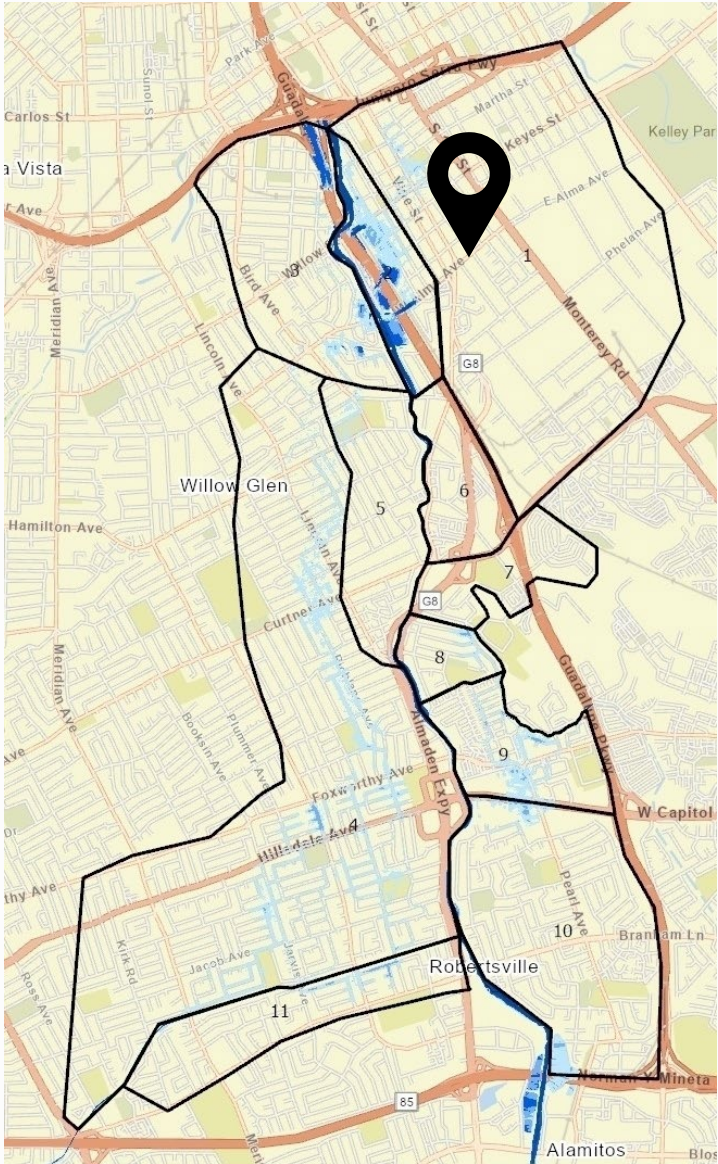
**A TYPICAL SECTION - ALMADEN CULVERT CROSSING WINGWALL**  
SCALE: 1/8" = 1'-0"



# PROPOSED PLANS



Existing  
Conditions



Combination Plan  
Alternative



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)

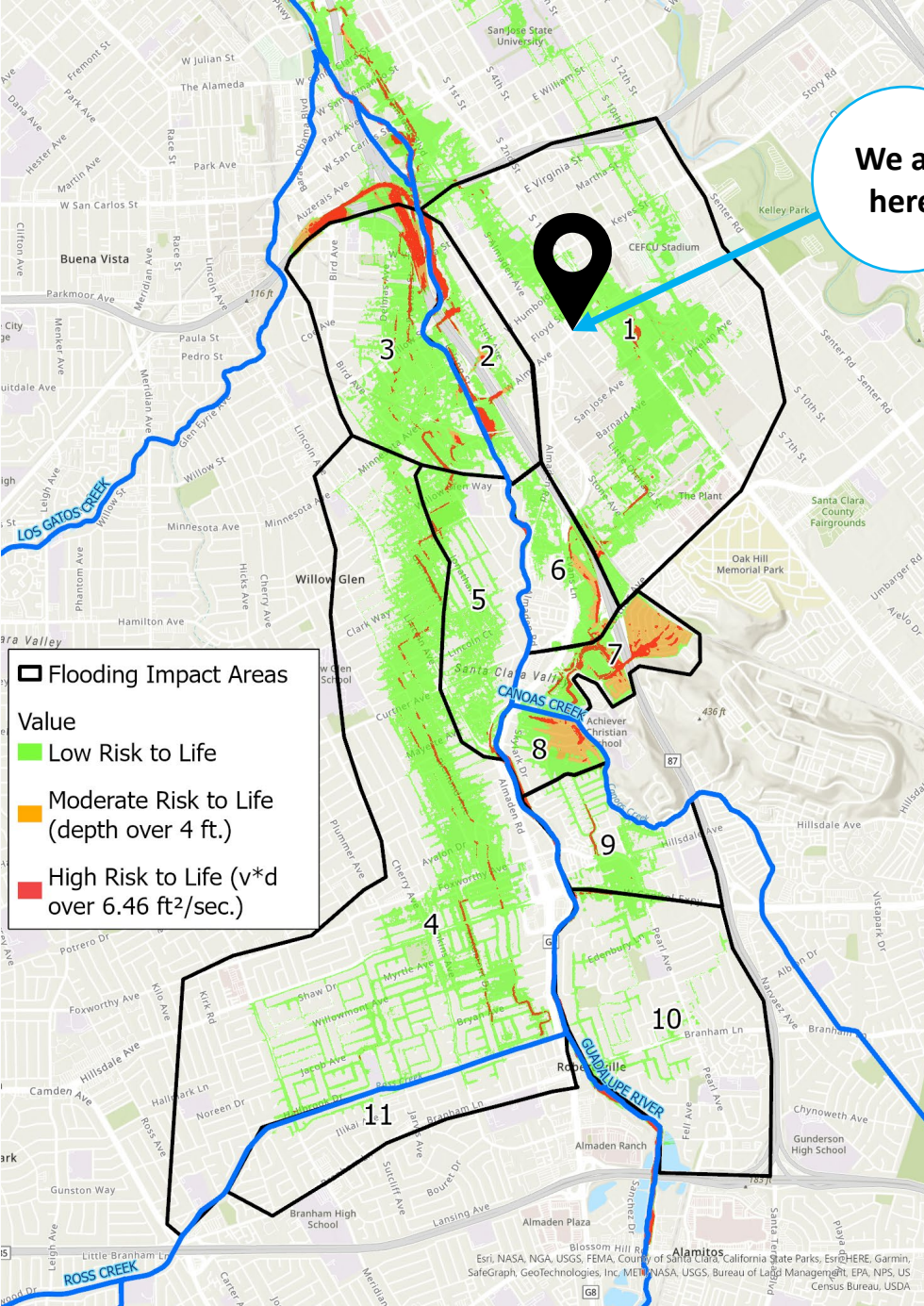


# LIFE SAFETY

We are here.

- 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.

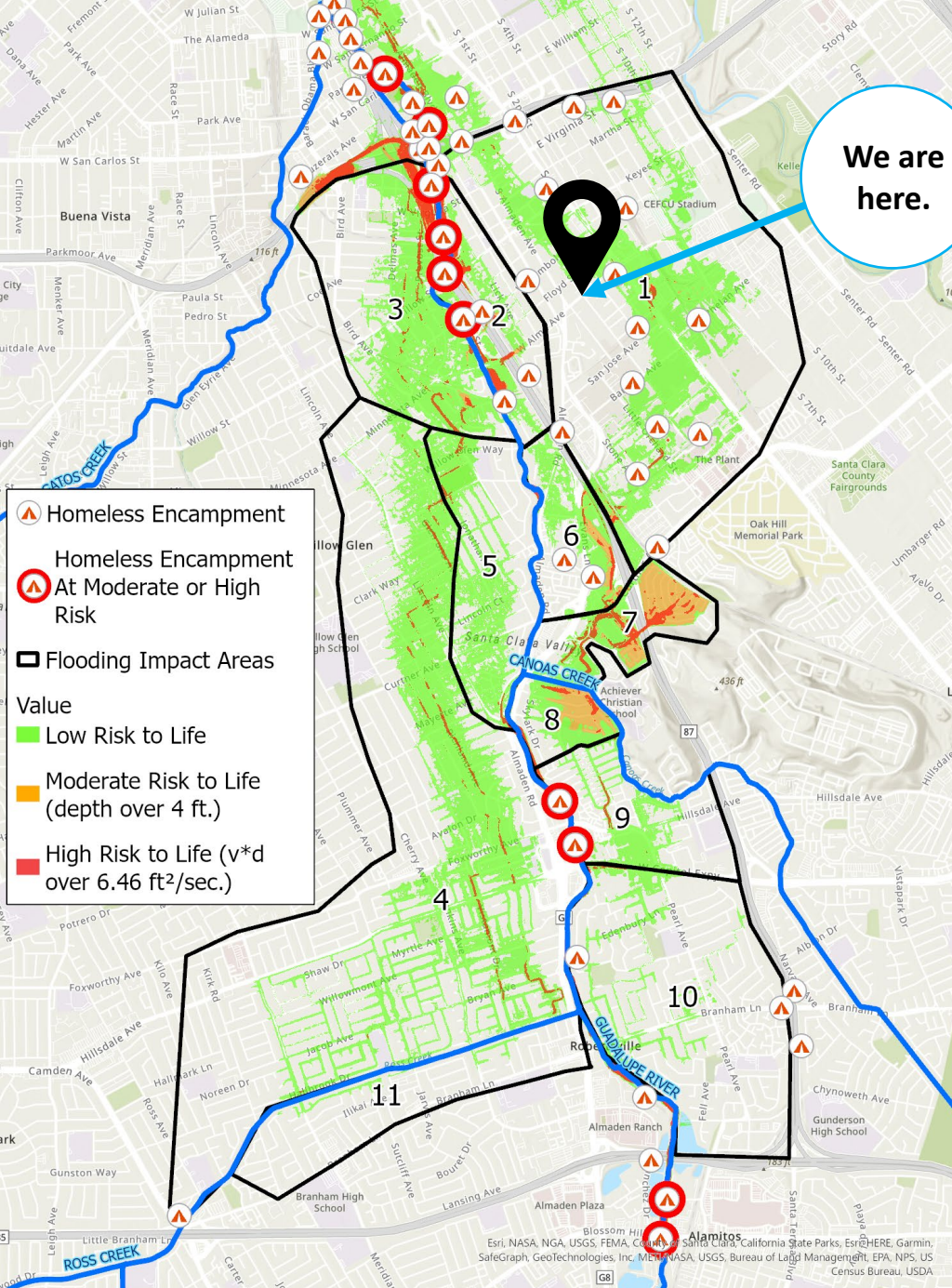


*Map of risk to life during a flood if no project was implemented.*



# LIFE SAFETY

We are  
here.



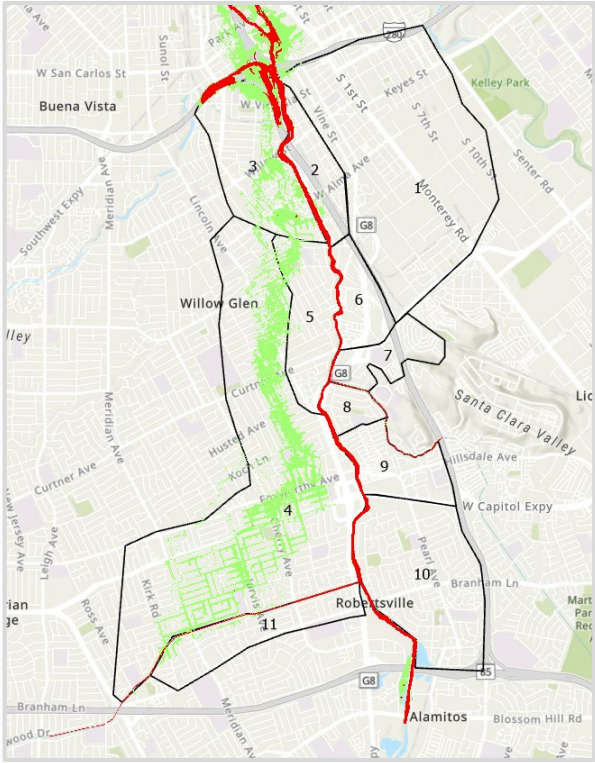
## Existing Conditions, Flood Hazard, and Encampments

- 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.

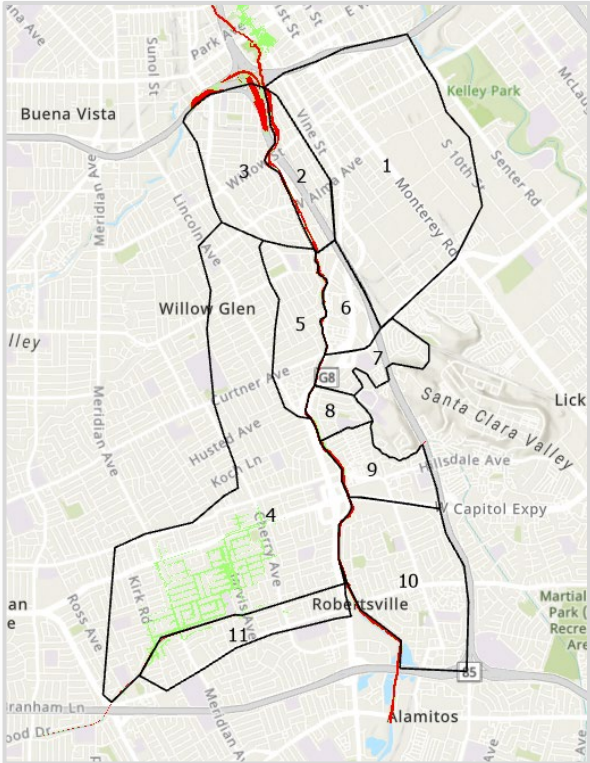
There is a large population of unhoused people living in encampments in and along the channel where flood flows move fast and water is deep.



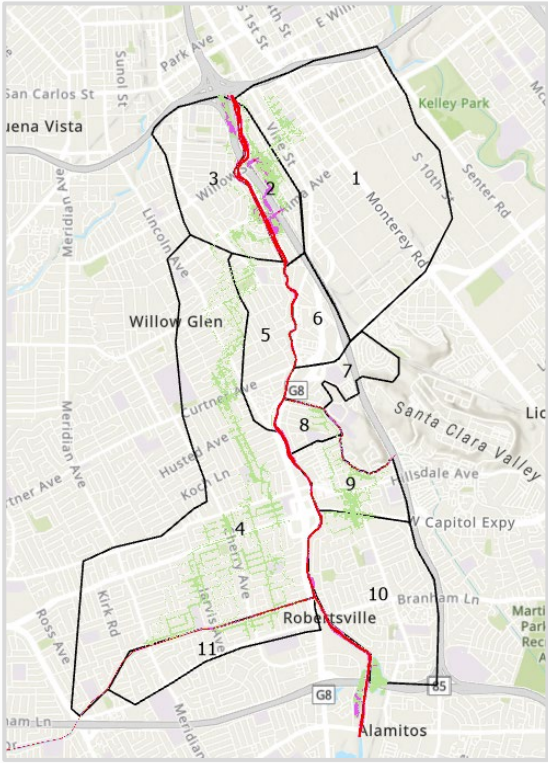
# LIFE SAFETY RISKS FOR EACH PLAN



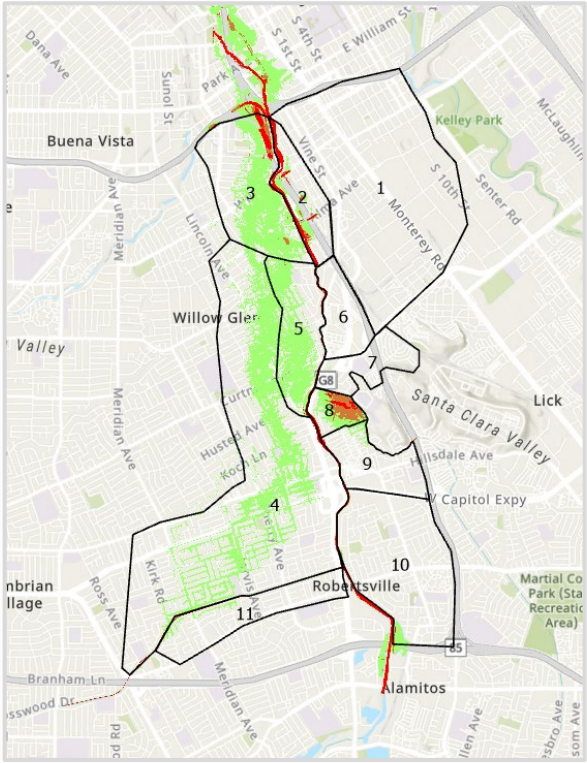
Valley View



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

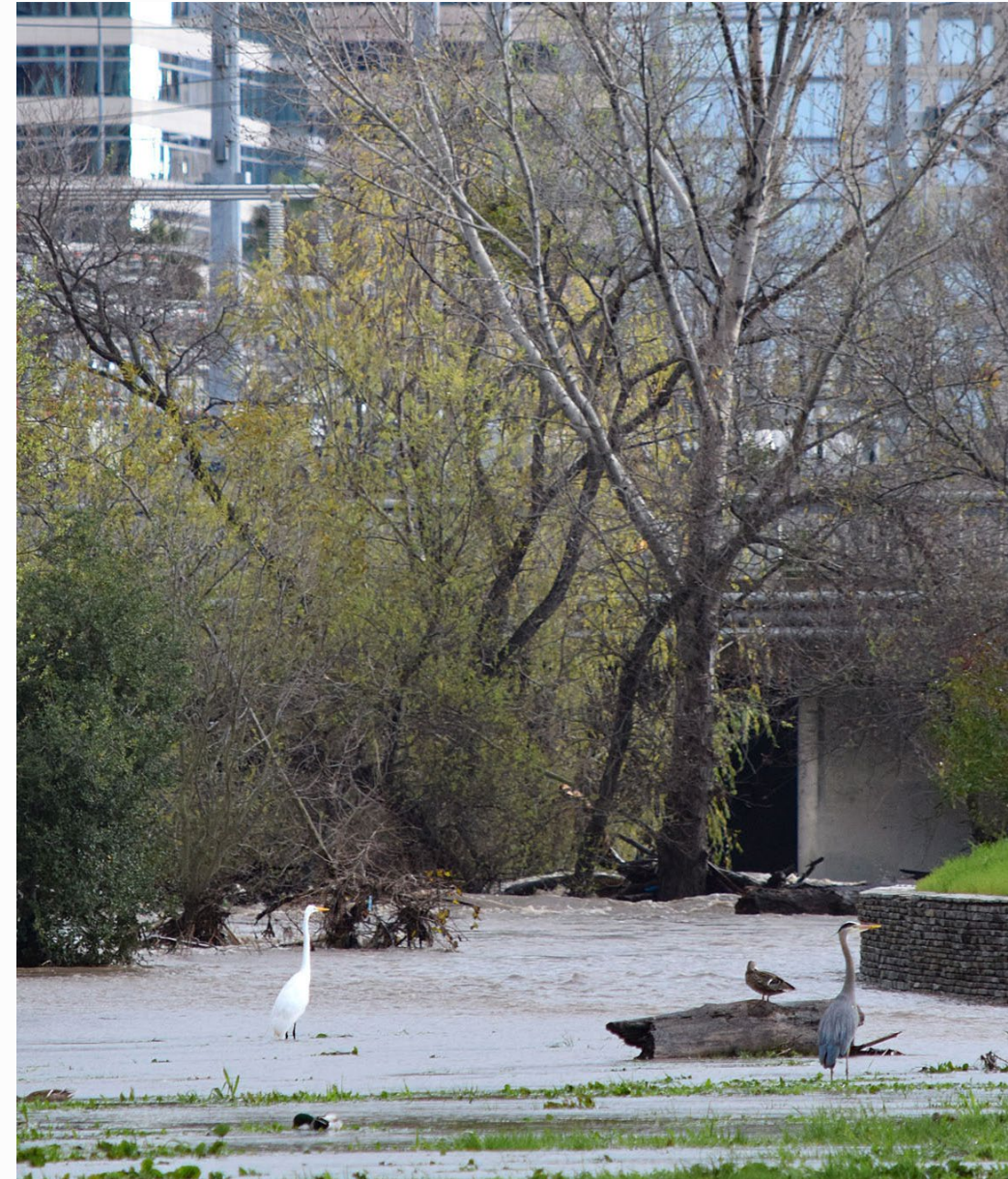
- Threatened and Endangered Species
  - Vegetation
  - Water Quality
  - Wildlife
- Guadalupe River is critical for steelhead fish recovery in San Francisco Bay
  - Shade from vegetative cover is limited and dominated by non-native vegetation, which **increases** the value of the existing vegetation 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:ataj 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 corridor's natural setting.



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



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

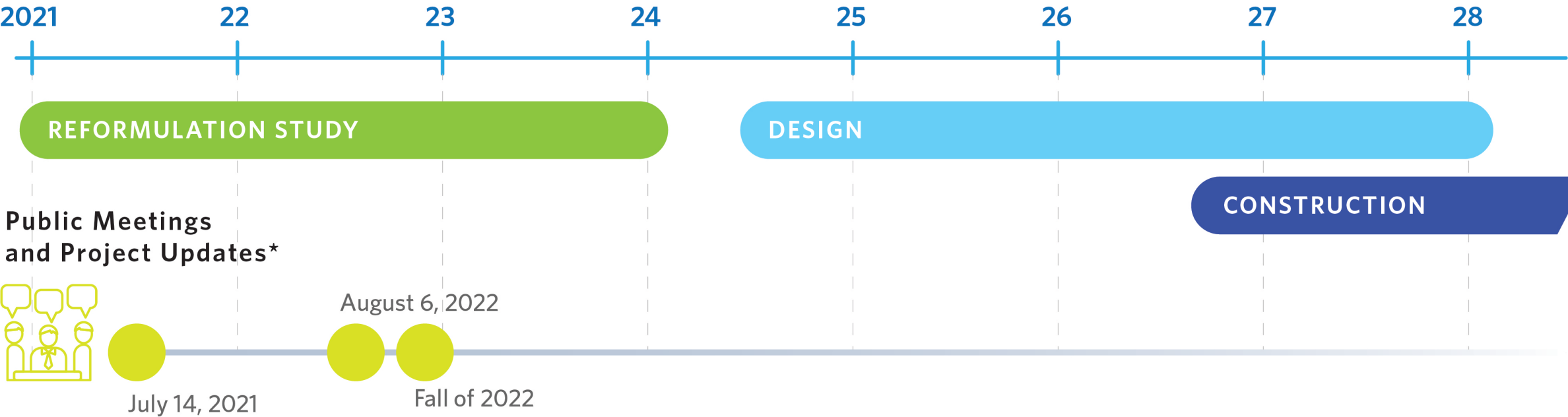
Opportunities for passive use and enjoyment will be incorporated into the trail elements along Guadalupe River.



# PROJECTED TIMELINE & NEXT STEPS



## Calendar Years\*



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





US Army Corps  
of Engineers

# Open House for Questions & Answers

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Visit <https://delivr.com/2zhgu>

