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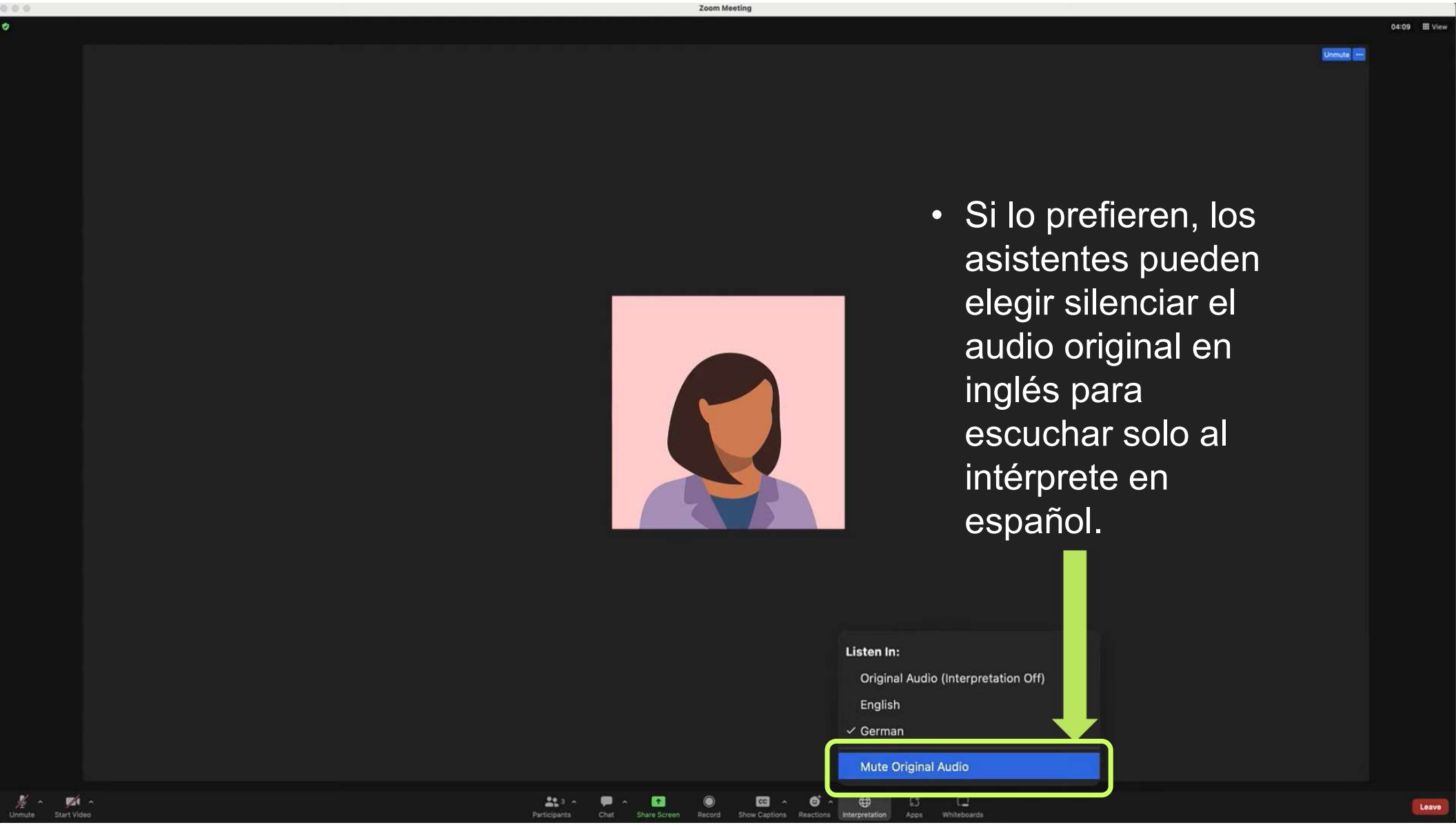


- Si lo prefieren, los asistentes pueden elegir silenciar el audio original en inglés para escuchar solo al intérprete en español.

SANTA PAULA CREEK
216 FEASIBILITY STUDY
FLOOD RISK MANAGEMENT

Public Scoping Meeting
7/23/25

U.S. ARMY

US Army Corps of Engineers®

AGENDA

1. Welcome – Introductions
2. Meeting Purpose
3. Study Participants and Roles
4. Brief Study History Background
5. Study Process and Timeline
6. Next Steps, Requested Input
7. Public Comments

MEETING PURPOSE AND OBJECTIVES

- Introducing U.S. Army Corps of Engineers and Ventura County Public Works Agency – Watershed Protection (VCPWA-WP) Section 216 Feasibility Study – Flood Risk Management
- Solicitation for public input
- Explaining the Corps Planning Process
- Staying informed and engaged

We're better with your voice

STUDY PARTICIPANTS AND ROLES

Lead Federal Agency: U.S. Army Corps of Engineers (Corps)

Non-Federal Sponsor: Ventura County Public Works Agency – Watershed Protection (VCPWA-WP)

- In close coordination with the City of Santa Paula

Participating Agencies: State agencies, local agencies, and Tribes who have an interest in the study

- California Department of Fish and Wildlife (CDFW)
- LA Regional Water Quality Control Board (RWQCB)
- California Department of Transportation (CalTrans)

WHY ARE WE HERE?

Purpose and Need: The Santa Paula Creek Project was constructed to convey up to ~28,000 cubic feet per second (cfs) of stormwater. The 0.1 exceedance probability event is now ~39,400 cfs. Updated hydrologic models show flood risk in the study area has increased.

Key Context**:** The Corps is Finalizing an **Operations and Maintenance Manual** for Ventura County to fully operate and maintain the Project.

Santa Paula Creek Jan. 10, 2005, NWS photo

Percent Chance Exceedance	Recurrence Interval	USACE 1995 With and Without Project at Mupu School Drainage Area 42.9 sq. mi. (cfs)	VCWPD 2010 Design Peak Flow @ HSPF Sub-Area 835 Drainage Area 45.8 sq. mi. (cfs)
0.2	500-year	54,400	76,900
0.5	200-year	37,800	53,000
1.0	100-year	28,000	39,400
2.0	50-year	19,900	28,000
4.0	25-year	----	19,100
5.0	20-year	----	11,800
10.0	10-year	7,300	10,300
20.0	5-year	4,000	5,700
50.0	2-year	1,200	1,700

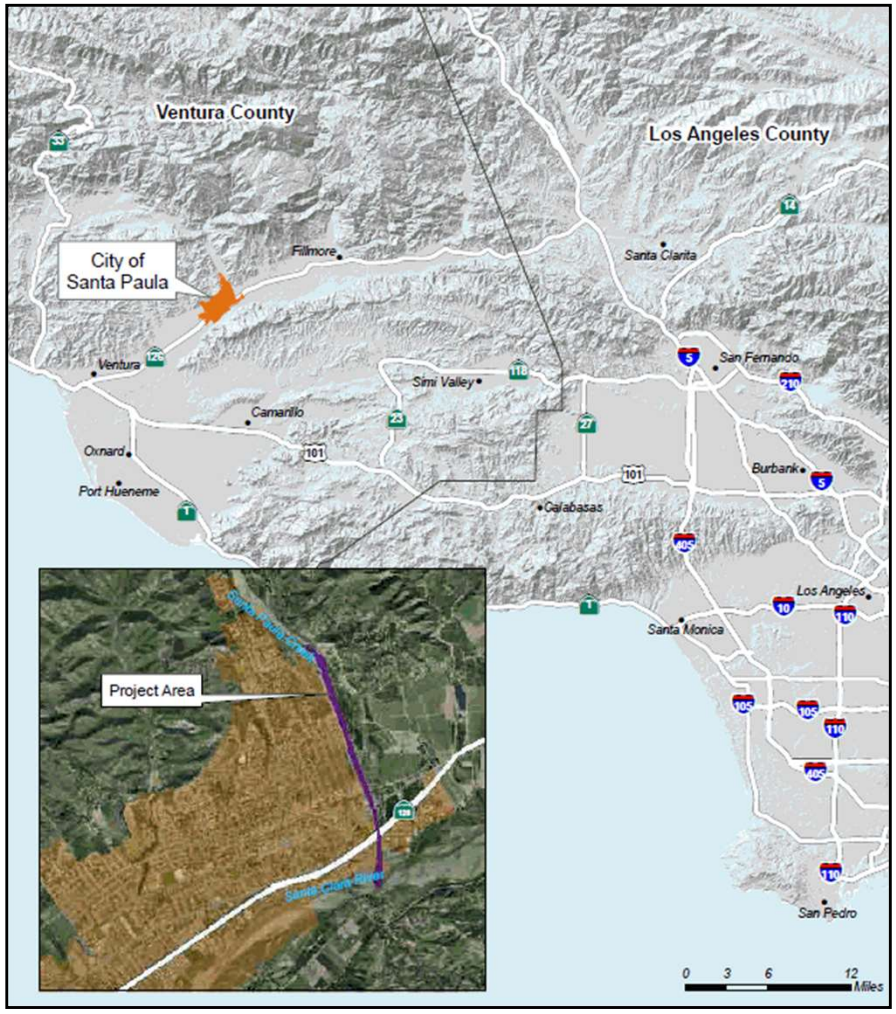
AUTHORITY AND COST SHARE PARTNERS

Authority: Section 216 of the Flood Control Act of 1970 (Public Law 91-611) which states:

"*The Secretary of the Army, acting through the Chief of Engineers, is authorized to* ***review the operation of projects the construction of which has been completed*** *and which were constructed by the Corps of Engineers in the interest of navigation,* ***flood control****, water supply, and related purposes,* ***when found advisable due to significantly changed physical or economic conditions****, and to report there on to Congress with recommendations of the advisability of* ***modifying the structures or their operation, and for improving the quality of the environment in the overall public interest***."

Non-Federal Lead: Ventura County Public Works Agency – Watershed Protection (VCPWA-WP)

Federal Lead: Los Angeles District US Army Corps of Engineers



TIMELINE

Timeframe	Project History and Past Flood Events
Jan-Feb 1969	Santa Paula received 5.63 inches on 25 January, and a total of 17.02 inches for the 11 day period. The runoff from this storm on Santa Paula Creek at the Santa Paula gaging station was estimated at **21,000 cfs.**
1974	Corps completes construction of Phase I of multi-phase initial Project.
1995	Corps completes General Re-Evaluation Report for Project with Recommended Plan to address residual flood risk
August 18, 1997	Steelhead trout listed as endangered species in the project area
2002	Project Construction was completed.
January 2005	Storm damaged Project features (fish ladder) and deposited large amount of sediment within the channel. Storm produced a peak of **27,500 cfs** at the stream gage at Mupu Bridge. This flow caused significant erosion issues upstream including wiping out parts of Highway 150. The end results was the sediment was dumped at the lower end of Santa Paula Creek. Santa Paula Creek did break out of its channel and flooded a construction company on the west side of Santa Paula Creek below Highway 126. Significant erosion was also reported to residences along South Mountain Road along the Santa Clara River. No flooding was reported above Highway 126.
2009-2010	The project features were repaired, and sediment was removed from the channel.
Jan 09, 2023	Stream gage near Mupu Rd Bridge recorded a peak flowrate of 13,600 cfs on 09 January 2023, causing damage to the levee
September 2024	**216 Study (this study) Feasibility Cost Share Agreement (FCSA) signed**
July 2025 (S)	Existing Project Operations & Maintenance manual team working to complete the manual and move it through reviews
Present	PL 84-99 Levee Rehab work in progress

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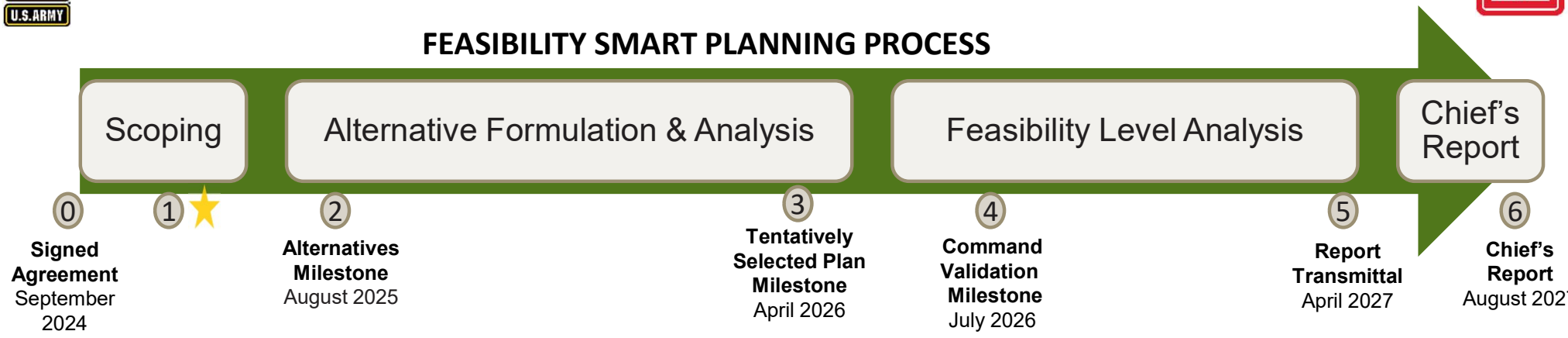
POST-EMERGENCY REHAB WORK
LEVEE REPAIR CONDUCTED

FISH LADDER – PRE AND POST STORM DAMAGE

FISH LADDER – RECENTLY CONSTRUCTED VERSE CURRENT STATUS

USACE STUDY PROCESS - TENTATIVE MILESTONE SCHEDULE

FEASIBILITY SMART PLANNING PROCESS



DATE	MILESTONE
27 September 2024 (A)	Feasibility Cost Share Agreement (FCSA)
August 2025	Alternatives Milestone Meeting (AMM)
April 2026	Tentatively Selected Plan (TSP)
June 2026	**Release Draft Report and Draft Environmental Impact Statement for Public Review**
July 2026	Respond to comments on Draft Report and Draft Environmental Impact Statement
August 2027	Chief's Report

STUDY SCOPE AND PLANNING FRAMEWORK

The array of alternatives (potential solutions) evaluated, at minimum, will include the following plans for considerations:	
A	No action
B	Nonstructural (examples: early warning system, structure elevations, floodproofing, structure acquisition)
C	Natural and Nature Based Features (levee setbacks, reconnection to floodplain)
D	Environmentally Preferred Alternatives
E	Plans that maximize public benefits relative to public costs
F	Locally preferred plan (if desired)

The Project Delivery Team will:

- Identify potential measures to address the residual flood risk that remains once the operation and maintenance of the project is fully implemented.
- Formulate alternatives to optimize management of residual flood risk for the Santa Paula community.
- Identify the alternative that provides the greatest net economic, environmental, and social benefits.

BENEFIT CATEGORIES EVALUATED EQUALLY

- Reduced property damages
- Reduced costs for commodity transport
- Reduced emergency costs

- Pollution prevention
- Habitat conservation
- Protect water quality
- Impacts to species or habitat avoided, minimized, or mitigated

Must identify the plan that maximizes net public benefits

- Reduced life safety risk
- Loss of human life
- Providing benefits for all communities

- Regional job growth
- Increases in regional economic activity (may be temporary during construction)

ENDANGERED SPECIES IN PROJECT AREA

- Southern California Steelhead Trout

Image credit: National Marine Fisheries Service

- Least Bell's Vireo

- Southwestern Willow Flycatcher

Flycatcher - Photo credit: National Parks Service

HABITAT EVALUATION MODEL

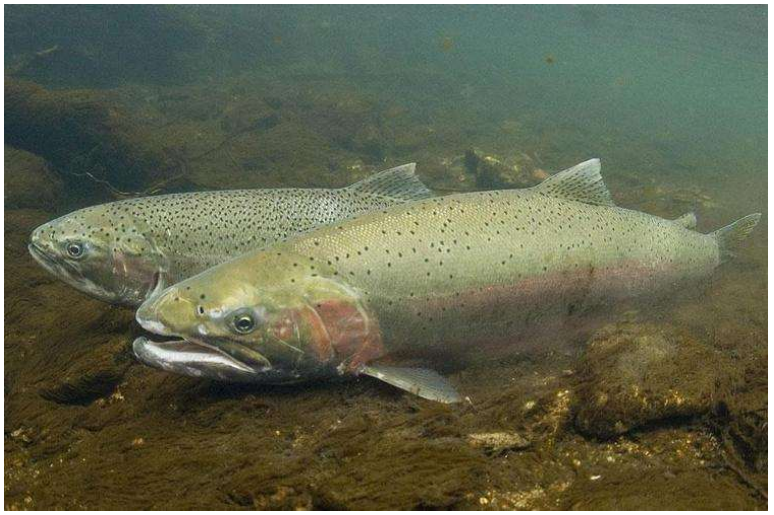
- Used to quantify benefits created for habitat/ecosystem to ensure alternative with the greatest comprehensive benefits is selected

- Most likely paths:

1. More focused model - Habitat Suitability Index (HSI) - Generally based on specific species. Could select model for an endangered species in the study area, like southern California steelhead trout or Least Bell's Vireo.

2. More comprehensive model, often focused on overall habitat quality and quantity. Designed to capture benefits to entire ecosystem. (e.g. California Rapid Assessment Method – CRAM)

3. Multiple models can be used together



Male and female steelhead trout. Credit: NOAA Fisheries

Least Bell's Vireo. Credit: US Fish and Wildlife Service

PROBLEMS AND OPPORTUNITIES

PROBLEMS

1. The City of Santa Paula is at risk of flooding that threatens life and safety in the project area.
2. The City of Santa Paula is at risk of flooding that threatens property and infrastructure in the project area.

OPPORTUNITIES

- Control sedimentation points to minimize Operations and Maintenance (O&M) and maximize the zones of transit for species.
- Address potential O&M challenges.
- Enhance project function and environmental quality through incorporation of Natural and Nature Based Infrastructure.
- Consider more effective and resilient designs to facilitate fish passage
- Restore native vegetation and remove invasive vegetation
- Incorporate recreation features and interpretive signage that describe project features (i.e. Importance of fish passage to endangered species).
- Incorporation of traditional knowledge and provide access for indigenous gathering of traditional resources
- Increase groundwater recharge potential.

OBJECTIVES CONSTRAINTS & CONSIDERATIONS

OBJECTIVES

1. **Reduce flood related risks** to public health and safety
2. **Reduce flood related damages** to infrastructure from rainfall events
3. **Reduce flood related risks** from deposition of sediment that can reduce project capacity and contribute to flood risk in subsequent events within the same season.

CONSTRAINTS

- Do not induce bank erosion above the existing project
- Avoid, where practicable, adding structures **in-stream** that will impact fisheries

CONSIDERATIONS

Carefully consider future conditions - sediment and vegetation management

Mitigate any induced flooding that results from project

Be consistent with local and regional land use planning

Consider existing permit requirements and coordinate to refine/update as needed

In-stream water quality / temperature should be considered in plan formulation

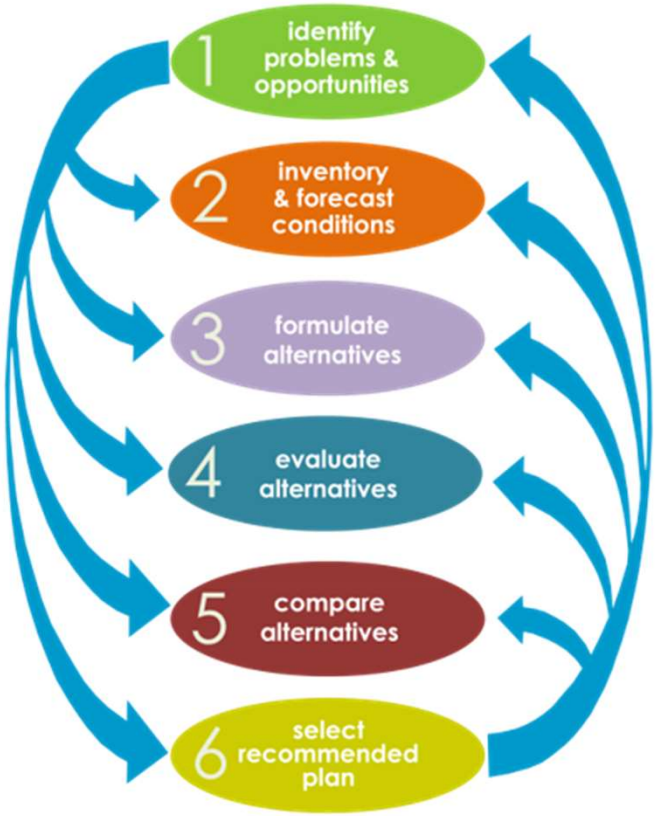
PROJECT AREA

CURRENT ARRAY OF CONCEPTUAL ALTERNATIVES

ID	Description
1	No Action-Residual Flood Risk Remains
2	Acquire/Elevate at risk structures & increase access points for maintenance near fish ladder on the east bank.
3	Add a box culvert near the Telegraph Bridge which is at risk of overtopping, and additional access ramps to enable changes to O&M to allow for targeted removal of sediment that deposits in the channel versus comprehensive removal.
4	Downstream of Telegraph Rd, acquire properties and expand the park to reconnect the floodplain, raise the bottom of the channel bed to ensure connectivity of channel to the floodplain and add additional access ramps on the east bank to enable targeted removal of sediment and create O&M efficiencies.
5*	Modify the slope of the channel (north of fish ladder to confluence with Santa Clara River), remove or abandon fish ladder; add additional access ramps for targeted O&M where needed.
6	Add a box culvert at Telegraph Bridge, remove the bridge apron, and widen the bank at the Hwy 126 bridge, make west bank steeper to increase flow velocity all of which would work together to reduce the likelihood of channel overtopping at telegraph bridge.
7	At Hwy 126 widen the channel and raise/replace the bridge to reduce the likelihood of overtopping of Hwy 126, changes to existing O&M to allow for targeted removal of sediment by adding access ramps on the east bank
8	Add a floodwall downstream of Hwy 126 on east (left-descending) bank; additional access ramps where needed on east bank.

NEXT STEPS

- Your input will be used to inform the study process, including alternatives development
- These alternatives are considered early conceptual solutions, and many be combined, refined, or screened if not feasible or effective, to best address the problems and opportunities of the study.
- Initiate consultation with resource agencies
- Draft Report and Draft Environmental Impact Statement made available for Public Comment



PUBLIC COMMENTS:

Submitted electronically to the Project Email:
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Or by mail, to:
Attn: Planning Division, Brian McDowell
Ref: Santa Paula Creek Study
U.S. Army Corps of Engineers
Los Angeles District, Planning Division
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More information can be found online:
https://publicworks.venturacounty.gov/wp/santa-paula-creek/