

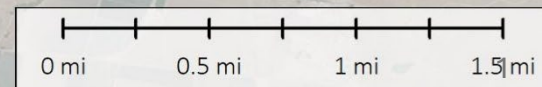
Agenda Date: June 2, 2026

Agenda No.: 17.1

# Santa Rita Creek

## 60-day Follow-up Through Bolsa Knolls

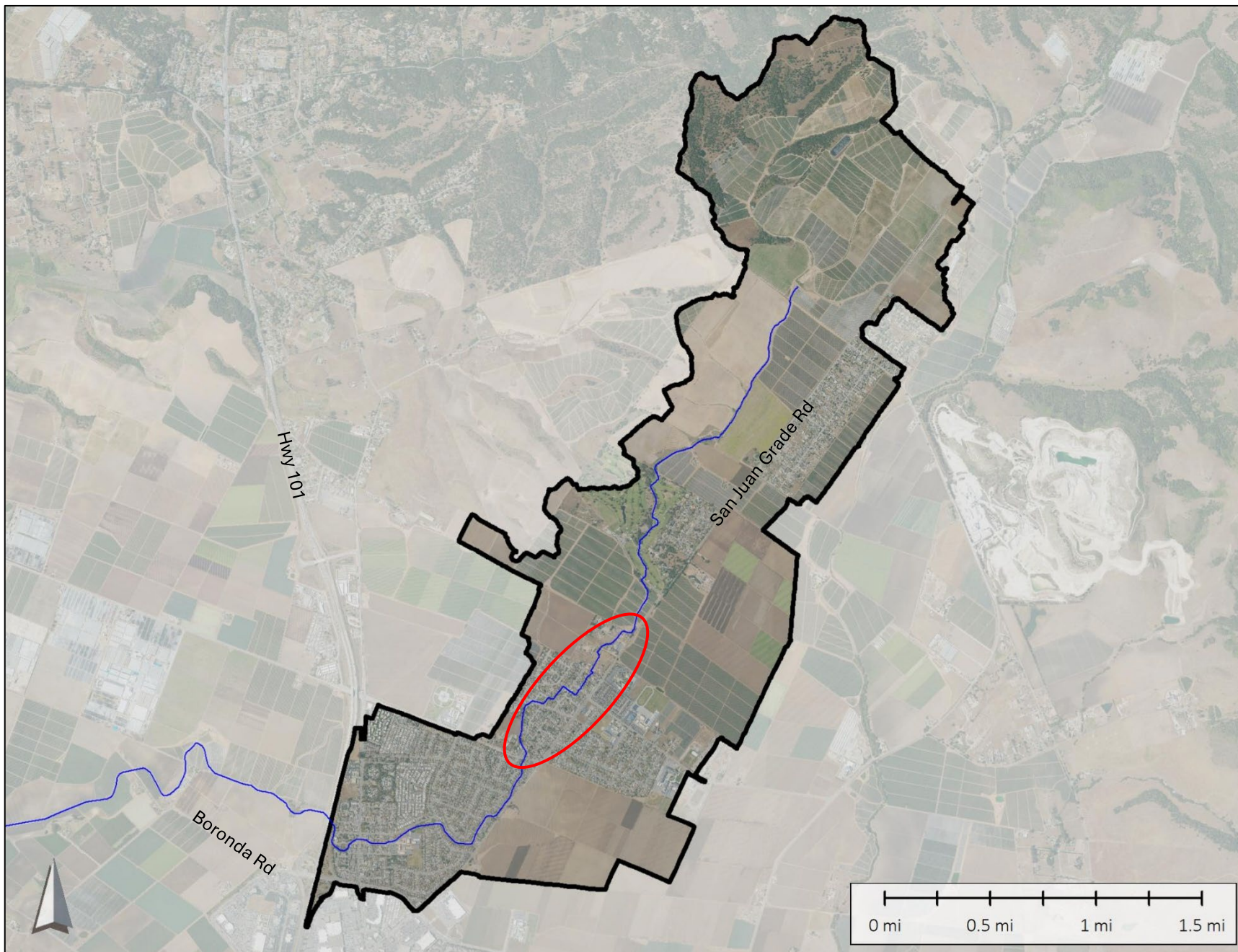
Board Referral No. 2024.04



# Santa Rita Creek Flood Study Update Presentation Overview

- Background Information
  - Watershed
  - Flooding History
  - Balance Hydrologics Inc. Santa Rita Creek Flood Study
- Updated estimates
  - Projects 1-5 (near term and long term)
  - Alternatives 1 – 5 (combinations of near term and long term)
- Special District options
- Questions/Comments

# Santa Rita Creek Upper Watershed and Bolsa Knolls



# Monterey County Floodplain Management Plan 2002

## ➤ Identifies Repetitive Loss Properties within Bolsa Knolls

### ➤ Single family dwellings, in the area, are pre-firm structures

- Built before Monterey County joined the National Flood Insurance Program.
- Lowest Floor Elevations were not required to be elevated above the base flood elevation .
- Monterey County Code currently requires the lowest finished floor to be elevated a minimum of 1 foot above the Base Flood Elevation.
- The Floodplain Management Plan identifies the primary solution for Bolsa Knolls repetitive loss properties = elevating the structures.

# Repetitive Flooding In Bolsa Knolls

2014



2017



2021



2022



2023



2025



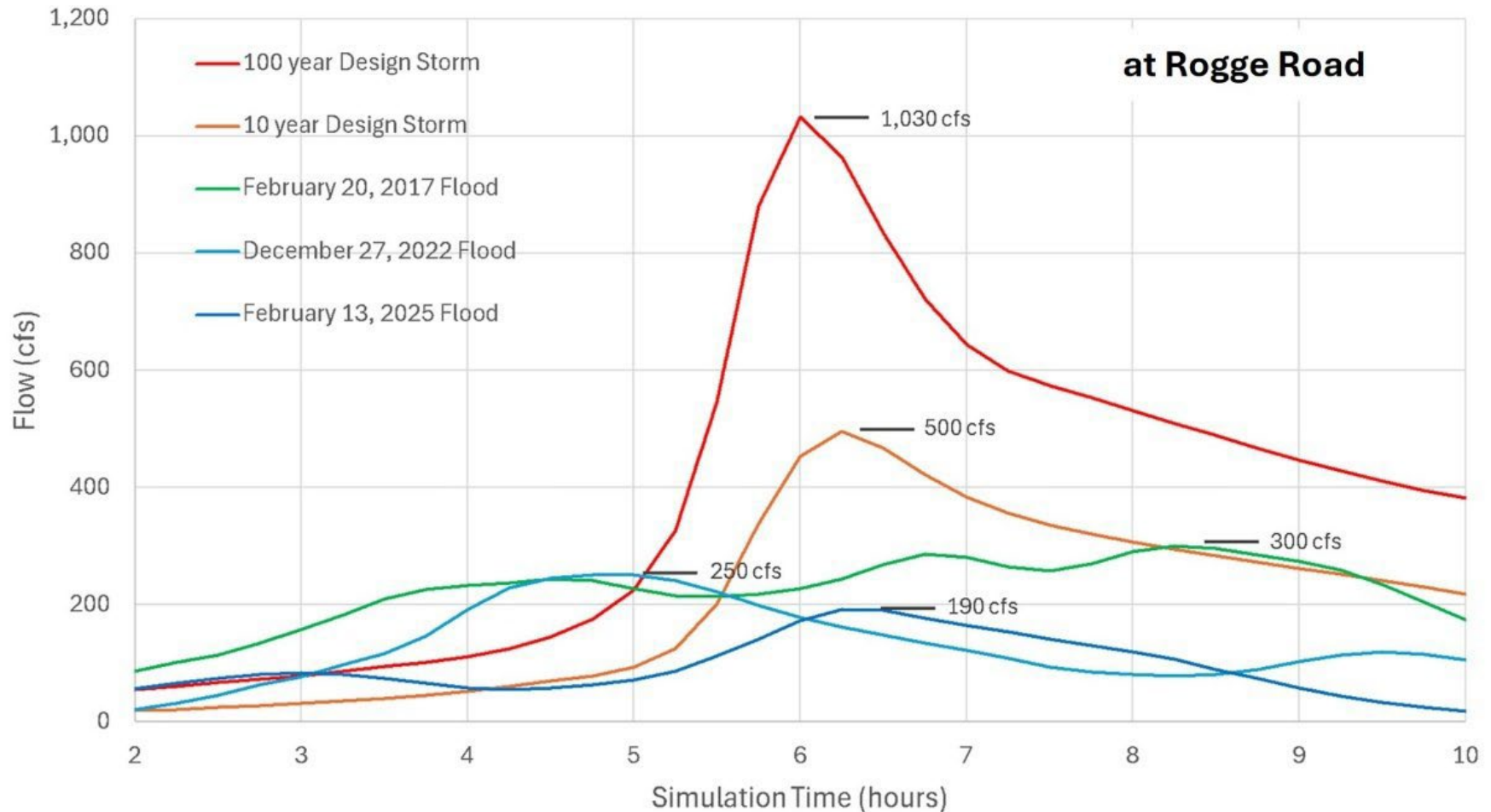
# Santa Rita Creek Flood Study

## Prepared by Balance Hydrologics Inc.

### ➤ Objective

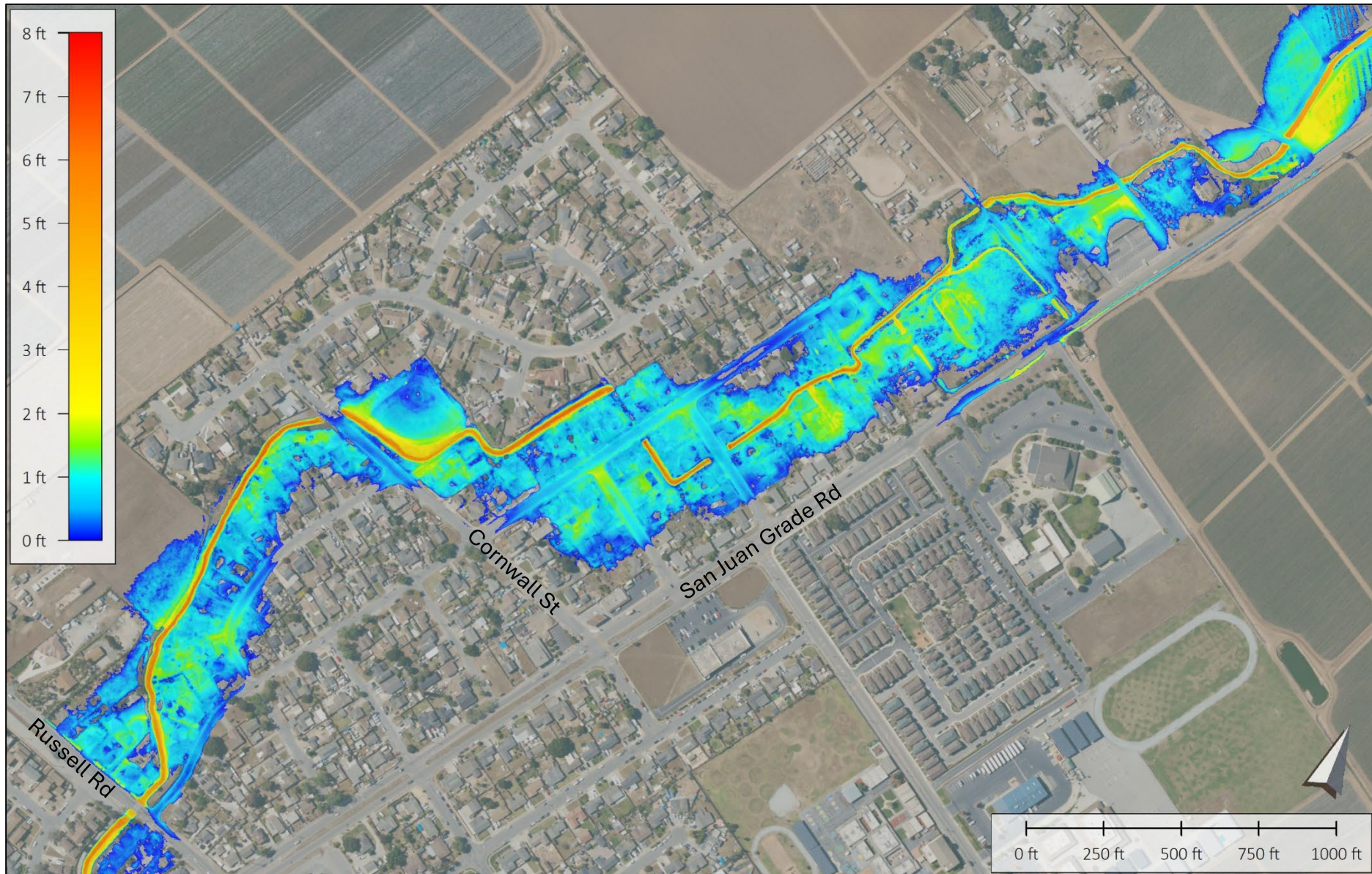
- Develop and evaluate a set of feasible project alternatives to reduce flood risk in Bolsa Knolls.

# Existing Conditions Hydrologic and Hydraulic Modeling Results



- 100 CFS is exceeded during most years and multiple times in wet winters.
- Santa Rita Creek, upstream from Rogge Road, currently overtops its banks at a flow rate of around 100 CFS.

# Modeled 10-year Flood Depths



# Balance Hydrologics Inc. Project Recommendations

**Project 1:** Culvert upsizing at Paul Avenue and Rogge Road.

**Project 2:** Remove sediment, as needed, at culvert crossings.

**Project 3:** Selective vegetation management within key channel segments.

**Project 4:** Construction of upstream sediment retention / stormwater detention basins.

**Project 5:** Also known as Alternative 5, includes restoring the study reach of Santa Rita Creek to conditions consistent with those depicted in the FEMA Flood Insurance Study prepared in the late 1970s.

# Project 1: Culvert Upsizing

- Upsizing the culverts would reduce the conveyance “bottlenecks” at Paul Ave and Rogge Rd.
- It is estimated that capacities would increase from 110 to 230 CFS at Rogge Rd and 130 to 230 CFS at Paul Ave.
- These would be fairly standard culvert replacement projects.
- Permits still need to be acquired.

Existing Inlet: Paul Ave  
Twin 4.5 ft CMP extending 190 ft



Proposed: Minimum - Twin 8 ft x 5 ft  
reinforced concrete box culverts



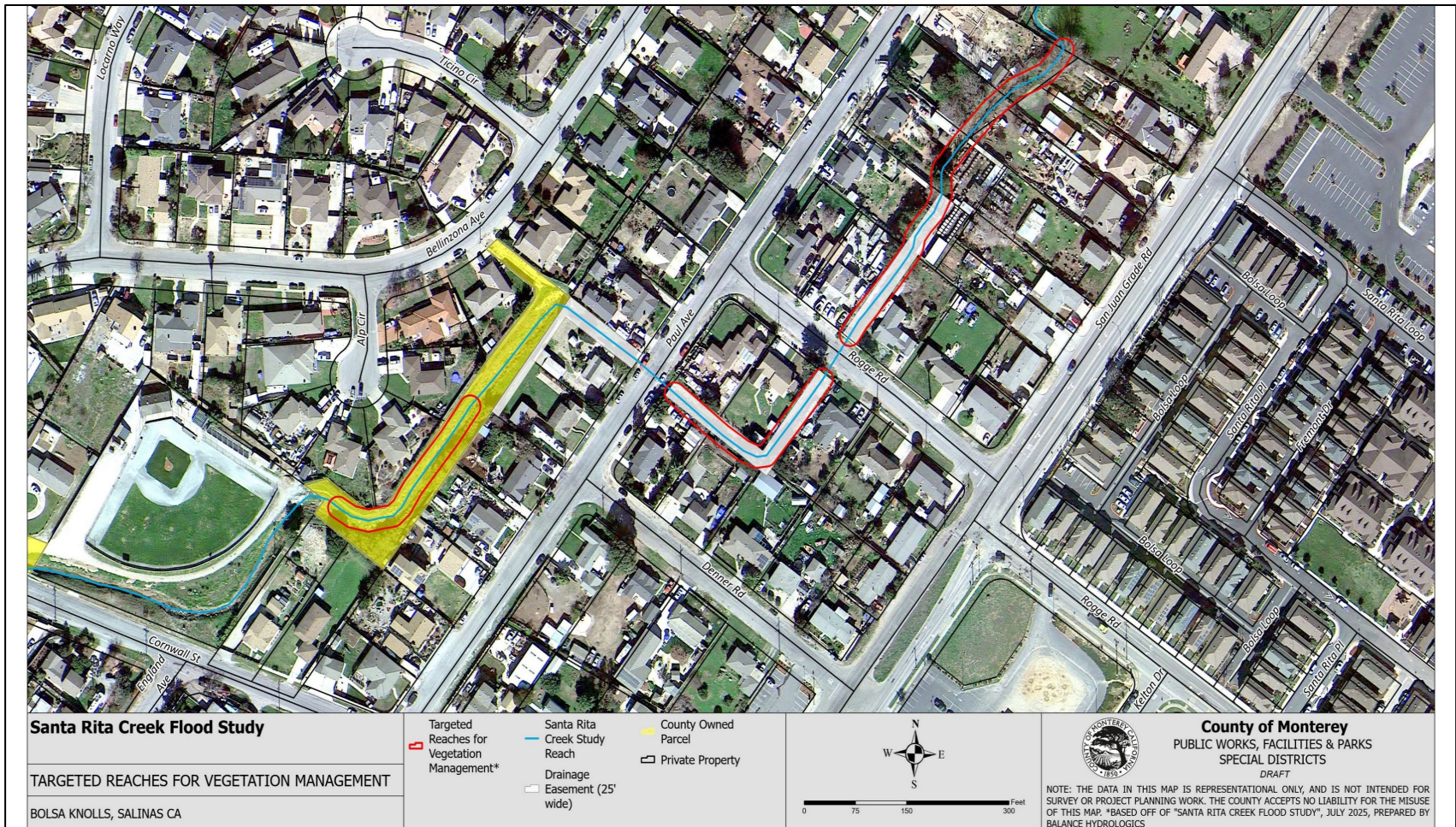
# Project 2: Remove Sediment at Culvert Crossings

- Ongoing removal of sediment from the culverts would prevent flooding impacts from worsening.
- Sediment removal from Rogge Rd, Paul Ave, and Cornwall St culverts is currently conducted by County Service Area No. 9.



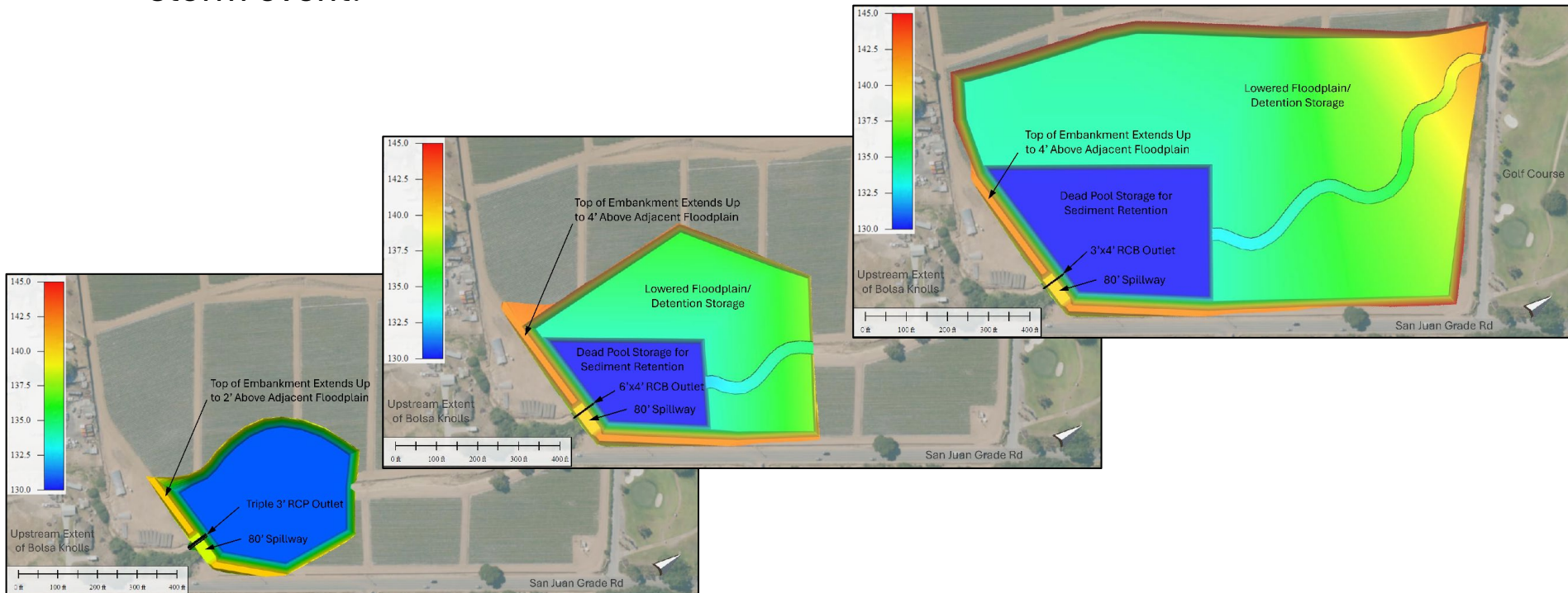
# Project 3: Vegetation Management

- Removing vegetation along target channel reaches would reduce conveyance bottlenecks along the study reach.
- Extensive vegetation management (permits required) would be challenging, and regulators would ultimately dictate the extent and type of vegetation that can be removed.



# Project 4: Sediment Retention / Stormwater Detention Basins

- The basin(s) would serve to 1) reduce sediment loading , 2) lower peak flow rates, and 3) reduce summer nuisance flows entering the study reach that promotes vegetation growth.
- A basin(s) has the potential to significantly reduce flooding realized during past storm events and has been modeled to reduce the number of impacted structures along the study reach from 43 to 4 during the December 2022 storm event.



# Project/Alternative 5

- **Description:** Alternative 5 includes restoring the study reach of Santa Rita Creek to conditions consistent with those depicted in the FEMA Flood Insurance Study prepared in the late 1970s.
- Does not offer clear advantages over the other evaluated alternatives when considering effectiveness, constructability, and long-term performance.
- Flood control benefits associated with this alternative are generally comparable to Alternatives 1 and 2, and less than those of Alternatives 3 and 4.
- The challenges associated with implementation, particularly permitting, would be greater than the other alternatives.
  - NEPA and CEQA compliance.
  - Multiple regulatory permits would be required to authorize this alternative including ACOE, RWQCB, CDFW, and USFWS.
  - Cost estimate for environmental documentation and permitting: \$2,000,000
- Challenges with access (narrow creek) and private improvements near creek
- Would have to be done periodically (AKA: ongoing maintenance)

<b>Santa Rita Creek Estimated Project Costs and Timeline</b>				
<b>Project #</b>	<b>Project Description</b>	<b>Cost Estimate</b>	<b>Timeline to Begin Project</b>	<b>Project Duration</b>
3a	Targeted vegetation clearing of 1,000' channel segment within County parcels	\$175,000	TBD	9 Days
3b	Targeted vegetation clearing of 750' channel segment outside of County parcels (RCD)	\$40,000	6-9 Months - Based on funding availability and permit requirements	8 Days
3c	Targeted vegetation clearing of 1,100' channel segment conducted entirely by RCD	\$100,000	6-9 Months - Based on funding availability and permit requirements	15 Days
1	Culvert upsizing at Paul Ave and Rogge Rd	\$500,000 - \$1,000,000	1.5 Years	6 Months
2	Sediment removal from Rogge Rd, Paul Ave. and Cornwall St culverts	\$35,000 - \$40,000	1 Week	2-3 Days
5	Sediment removal from 4,600' of channel and 2.6 acres of vegetation.	\$3,000,000 - \$6,000,000	2 Years (assuming permitting timeline does not change)	TBD
4a	21 acre ft Sediment Retention Basin	Property cost estimate depending on pond dimensions: \$60,000 - \$1.2M Construction Cost Estimate: \$2.7M - \$6.8M Total Project Cost Estimate: \$2.76M - \$8.M	TBD	4 Years
4b	35 acre ft Sediment retention/stormwater detention basin	Property cost estimate depending on pond dimensions: \$60,000 - \$2.1M Construction Cost Estimate: \$4.5M - \$11.3M Total Project Cost Estimate: \$4.56M - \$13.4M	TBD	4 Years
4c	90 acre ft Sediment retention/stormwater detention basin	Property cost estimate depending on pond dimensions: \$180,000 - \$5.4M Construction Cost Estimate: \$11.6M - \$29M Total Project Cost Estimate: \$11.8M - \$34.4M	TBD	4 Years

## Project Alternatives 1- 5

- **Alternative 1** includes several focused conveyance project elements (i.e. culvert replacement at Rogge Rd and Paul Ave, targeted vegetation removal, and sediment removal at Cornwall St) paired with a single sediment retention basin project.
- **Alternative 2** includes culvert replacement at Rogge Rd and Paul Ave and targeted vegetation removal.
- **Alternative 3** includes several focused conveyance project elements (i.e. culvert replacement at Rogge Rd and Paul Ave, targeted vegetation removal, and sediment removal at Cornwall St) paired with a 35-acre-foot sediment retention and stormwater detention basin.
- **Alternative 4** includes several focused conveyance project elements (i.e. culvert replacement at Rogge Rd and Paul Ave, targeted vegetation removal, and sediment removal at Cornwall St) paired with a 90-acre-foot sediment retention and stormwater detention basin.
- **Alternative 5** includes restoring the study reach of Santa Rita Creek to conditions consistent with those depicted in the FEMA Flood Insurance Study prepared in the late 1970s.

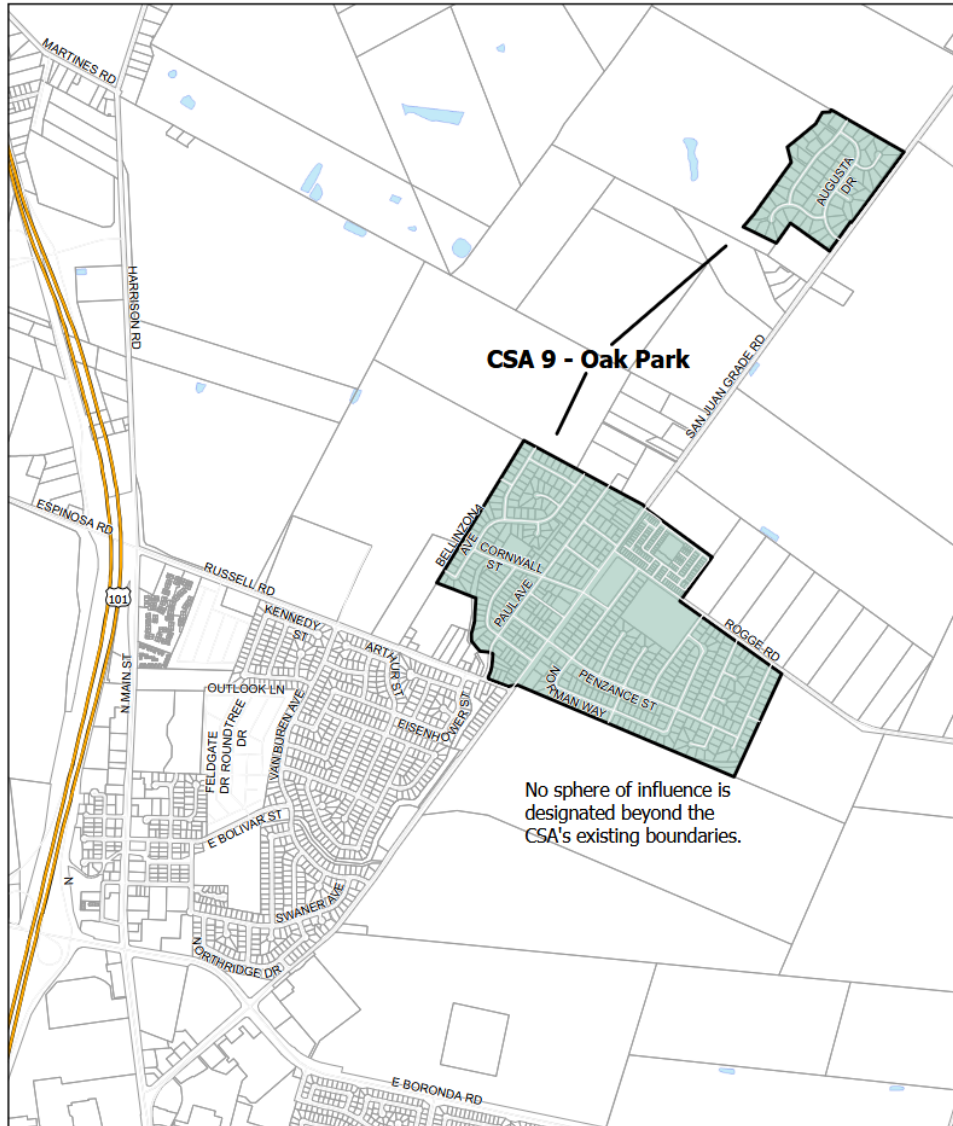
# Flood Reduction Benefits and Updated Estimated Costs for Each Alternative

Flood Event	Number of Impacted Structures					
	Existing	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
<b>100 Year</b>	81	81	81	78	70	80
<b>10 Year</b>	61	58	61	49	33	57
<b>12/27/2022</b>	43	20	41	8	4	30
<b>2/13/2025</b>	30	7	12	6	4	7
<b>Updated Cost Estimate</b>	N/A	\$3.4M- \$9.1M	\$600,000 - \$1,100,000	\$5.2M - \$14.5M	\$12.4M- \$35.5M	\$3,000,000 - \$6,000,000

# Special Districts Options

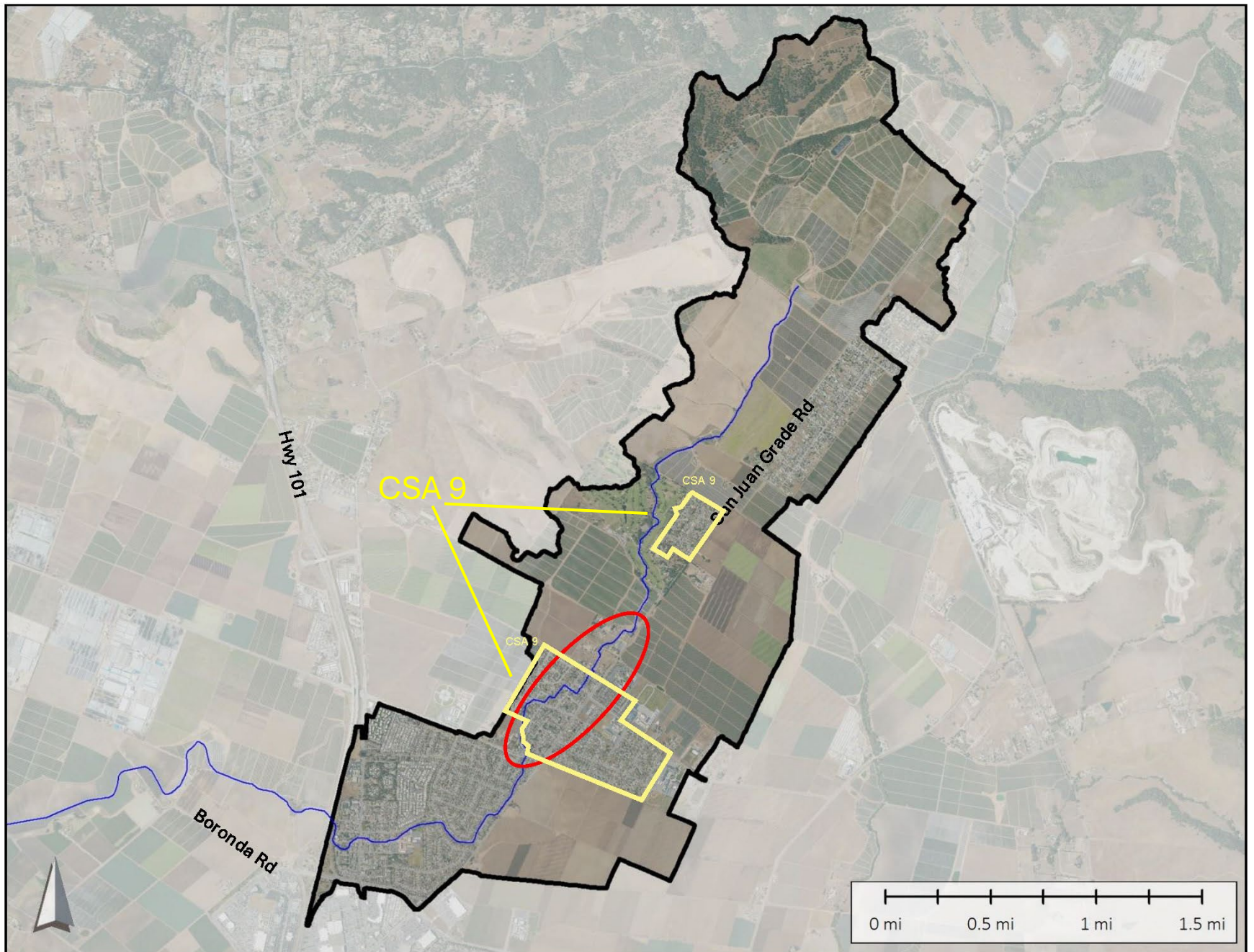
- Expand or modify an existing County Service Area (CSA) to match the upper portion of the Santa Rita Creek watershed boundary.
- Creating a new special district
- Forming a Joint Powers Authority (JPA)
- Comparison of costs and efficiencies

# Existing CSA 9



<p><b>LAFCO of Monterey County</b> LOCAL AGENCY FORMATION COMMISSION</p> <p>P.O. Box 1369 Salinas, CA 99901 Telephone (831) 754-5838</p> <p>152 W. Cabilan St., Suite 102 Salinas, CA 99901 FAX: (831) 754-5831</p>		<p><b>COUNTY SERVICE AREAS (CSAs)</b></p> <p><b>CSA 9 - Oak Park</b></p> <p>Last LAFCO-Approved Change: 11/27/1979 Sphere of Influence Affirmed: April 28, 2025 Map Prepared: April 1, 2025</p>
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# Santa Rita Creek Watershed and Existing CSA 9



# Special Districts Options

## Principle Acts of Independent Special Districts

SPECIAL DISTRICT TYPE	POWERS AND FUNCTIONS	FORMATION	NUMBER OF IND. SPECIAL DISTRICTS	ELECTION INFORMATION	NUMBER OF BOARD MEMBERS
<b>Airport Districts</b>  <i>Public Utilities Code §22001 et seq.</i>	Assist in the development of airports, spaceports, and air navigation facilities	Any territories of one or more counties and one or more cities, all or any part of any city and any part of the unincorporated territory of any county; the boundaries of a district may be altered and outlying contiguous territory in the same or an adjoining county annexed to the district	10	Elected by resident voters to 4 year terms	5 Directors
<b>California Water Districts</b>  <i>Water Code §34000 et seq.</i>	Maintain the necessary works for the production, storage, and distribution of water for irrigation, domestic, industrial, and municipal purposes, and any drainage or reclamation works	Any area of land which is capable of using water beneficially for irrigation, domestic, industrial or municipal purposes and which can be serviced from common sources of supply and by the same system of works; area need not be contiguous	135	Elected by landowner voters to 4 year terms <sup>1</sup>	At least 5 Directors (may be increased to 7, 9, or 11) <sup>2</sup>

# Special Districts Options

SPECIAL DISTRICT TYPE	POWERS AND FUNCTIONS	FORMATION	NUMBER OF IND. SPECIAL DISTRICTS	ELECTION INFORMATION	NUMBER OF BOARD MEMBERS
<b>California Water Storage Districts</b>  <i>Water Code §39000 et seq.</i>	Maintain the necessary works for the storage and distribution of water and drainage or reclamation works	Any land irrigated or capable of irrigation from a common source; under specific conditions the district need not to be contiguous	8	Elected by landowner voters to 4 year terms	At least 5 Directors <sup>2</sup>
<b>Citrus Pest Districts</b>  <i>Food and Agriculture Code §8401 et seq.</i>	Control and eradicate citrus pests	Any county devoted exclusively to the growing of citrus fruits	9	Appointed by the Board of Supervisors to fixed 4 year terms	5 Directors <sup>3</sup>
<b>Community Services Districts</b>  <i>Government Code §61000 et seq.</i>	Provide up to 32 different services such as, water, garbage collection, wastewater management, security, fire protection, public recreation, street lighting, mosquito abatement services, etc.	Any county or counties of an unincorporated territory or incorporated territory of a contiguous or noncontiguous area	312	Elected by resident voters to 4 year terms <sup>4</sup>	5 Directors

# Special Districts Options

SPECIAL DISTRICT TYPE	POWERS AND FUNCTIONS	FORMATION	NUMBER OF IND. SPECIAL DISTRICTS	ELECTION INFORMATION	NUMBER OF BOARD MEMBERS
<p><b>Cotton Pest Abatement Districts</b></p> <p><i>Food and Agriculture Code §6051 et seq.</i></p>	Control and prevent introduction of pests, and oversee cotton plants in areas that are at risk of pests	Any land in more than one of the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura with the consent of the Board of Supervisors of the counties affected	1	Appointed by the Board of Supervisors to fixed 4 year terms	5 Directors <sup>5</sup>
<p><b>County Sanitation Districts</b></p> <p><i>Health and Safety Code §4700 et seq.</i></p>	Maintain and operate sewage systems and sewage disposal or treatment plants	Any unincorporated or incorporated territory or both; the incorporated territory included in the district may include the whole or part of one or more cities with the permission of that city	34	Elected by resident voters to 4 year terms or may choose to have a mixed board <sup>6</sup>	3 Directors
<p><b>County Water Districts</b></p> <p><i>Water Code §30000 et seq.</i></p>	Develop regulations for the distribution and consumption of water; sell water; collect and dispose sewage, garbage, waste, trash and storm water; store water for future needs; may generate hydroelectric power; and provide fire protection under specified conditions	Any county or two or more contiguous counties or of a portion of such county or counties, whether the portion includes unincorporated territory or not	162	Elected by resident voters to 4 year terms <sup>4</sup>	At least 5 Directors (may be increased to 7, 9, or 11)

# Special Districts Options

Special districts created under the following principle acts may have boards composed of representatives of two or more other public agencies (i.e. cities and/or counties). Such representatives may either be members of the legislative body or designated employees of such other public agencies. Below is guide to principle acts of these "mixed board" districts:

SPECIAL DISTRICT TYPE	POWER AND FUNCTIONS	FORMATION	NUMBER OF MIXED BOARD DISTRICTS	ELECTION INFORMATION	NUMBER OF BOARD MEMBERS
<p><b>Air Quality Management/ Air Pollution Control Districts</b></p> <p><i>Health and Safety Code §40000 et seq.</i></p>	<p>Prevent and control air pollution from all sources, except emissions from vehicles</p>	<p>Any county or counties or any portion thereof of an unincorporated territory or incorporated territory or both; the cities do not need to be contiguous</p>	<p>12</p>	<p>The Board of Supervisors of the county is the board of directors or under specified conditions the district shall have a mixed board<sup>1</sup></p>	<p>At least 2 Members<sup>1</sup></p>
<p><b>Bridge and Highway Districts</b></p> <p><i>Streets and Highways Code §27000 et seq.</i></p>	<p>Acquire, or contract to acquire, and may construct under contract, or by its own employees, maintain, improve, and operate bridges, abutments, rights-of-way, roads, tunnels, railroads, streetcar lines, interurban lines, telephone and telegraph lines, footpaths, viaducts, tollgates, tollhouses, subways, and all other forms of property necessary or proper for the successful prosecution of the project for which the district was organized</p>	<p>A district may consist of part or all of one or more contiguous counties</p>	<p>1</p>	<p>Appointed by the Boards of Supervisors of each of the counties in which any portion of the territory of the district is located; appointees shall be reviewed every 2 years<sup>2</sup></p>	<p>At the discretion of county Boards of supervisors forming the district</p>

# Special Districts Options

SPECIAL DISTRICT TYPE	POWER AND FUNCTIONS	FORMATION	NUMBER OF MIXED BOARD DISTRICTS	ELECTION INFORMATION	NUMBER OF BOARD MEMBERS
<b>County Drainage Districts</b>  <i>Water Code §56000 et seq.</i>	Provide control of storm and other waste waters, including waters which arise outside and which flow or drain into or through the given district and insure the conservation of storm and waste waters for beneficial and useful purposes	Any unincorporated or incorporated and contiguous unincorporated territory; the incorporated territory included in the district may include the whole or part of one or more cities with the permission of that city	22	If the district does not include a city or cities, the Board of Supervisors of the county is the board of directors of the district, if the district includes a city or cities, the district shall have a mixed board <sup>3</sup>	At least 5 Directors
<b>Garbage and Refuse Disposal Districts</b>  <i>Public Resources Code §49100 et seq.</i>	Maintain and provide a site for the disposal of garbage and refuse	Any contiguous portion or portions of a county, whether the portion or portions include incorporated or unincorporated territory; however, no city, or any portion thereof, shall be included in the district without the consent of the governing body of the city adopted by a favorable vote of two-thirds or more of its members	1	Appointed by the Board of Supervisors and by each City Council within the district to unfixed 4 year terms <sup>4</sup>	At least 3 Directors

# Special Districts Options

- **Public Agency Created by Special Legislation**
  - If none of the options identified above are the right fit, another option is to seek special legislation that creates a new entity which can be designed to fulfill the exact needs.
  - Special legislation is generally appropriate where the area to be covered by the new district or agency has special conditions that are specific to the area and general law cannot address those. The powers granted to districts created by special legislation can be quite broad but tailored to accomplish specific goals.
  - Examples:
    - Brannan-Andrus Levee Maintenance District Act
    - Sierra County Flood Control and Water Conservation District
    - Siskiyou County Flood Control and Water Conservation District

# Special Districts Options

- LAFCo formation process/action would be required for all the previous options.
  - MoCo LAFCo application = \$4,675 on July 1, 2026

*Exhibit IV-1 Flow Chart of the Formation Process*



# Special Districts Options

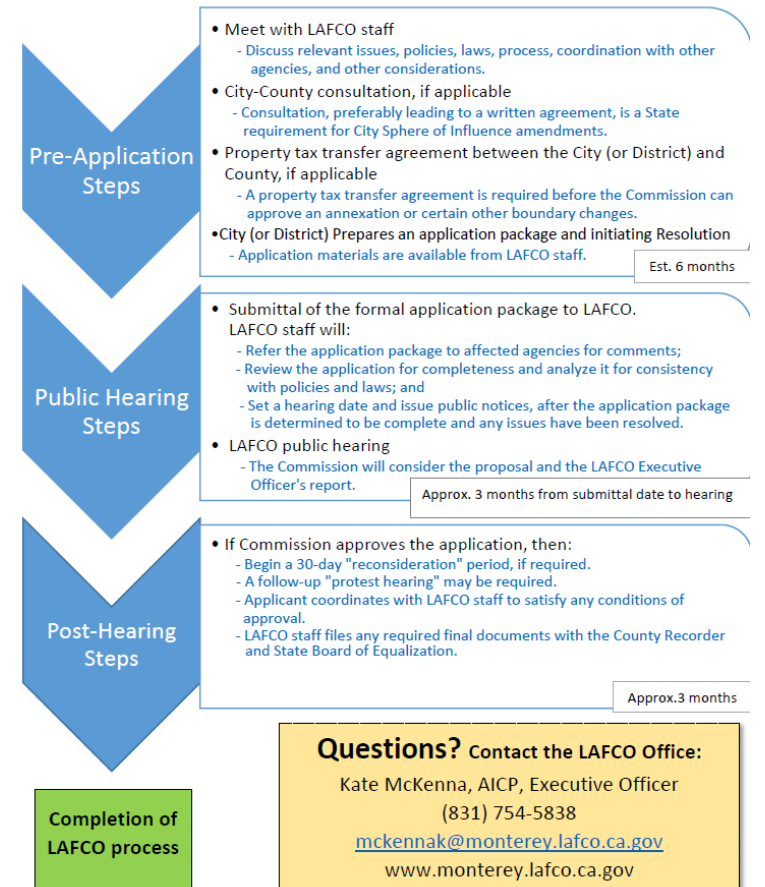
- LAFCo formation process/action would be required for all the previous options.
  - For annexations = LAFCO fee deposit for an annexation greater than 25 acres is currently set at \$5,500 and scheduled to increase to \$5,775 on July 1, 2026
    - Estimated to be approximately one year from pre-application steps to post-hearing steps.

## LAFCO of Monterey County

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

The Local Agency Formation Commission of Monterey County is an independent countywide body created by the State Legislature in 1963. The Commission regulates the boundaries of cities and special districts, establishes Spheres of Influence, and conducts studies of government services. LAFCO's purposes are to: encourage the orderly formation and development of local governments; preserve agricultural and open space lands; discourage urban sprawl; and ensure the efficient delivery of government services. The 11-member Commission is served by an Executive Officer and professional staff, and is funded by local governments.

### Application Steps for Boundary Changes and Sphere of Influence Amendments



# Special Districts Options

- Joint Powers Authority (JPA)
  - Does not require LAFCO process
  - The agency created by a joint powers agreement will possess the common powers specified in the agreement and may exercise them in the manner or method provided in the agreement. If the agency is not one or more of the parties to the agreement but instead a separate entity, then pursuant to the agreement, that agency may enter into contracts; employ agents and employees; acquire, construct, manage, maintain or operate any building, works or improvements; or acquire, hold or dispose of property or incur debts, liabilities or obligations.
- As the County is not the flood control entity, creating an entity for flood control and creek maintenance would allow for a dedicated service to the constituents in Bolsa Knolls for clearing sediment from the Santa Rita Creek, and could strive for the long term project alternatives.

# Staff Recommendations

- Receive a presentation on the 60-day follow-up for the Santa Rita Creek drainage study through Bolsa Knolls; and
- Provide direction to staff on potential next steps.

# Questions or Comments?

