

Alisal Creek Watershed

Outreach Workshop
August 24, 2026
11AM-2PM

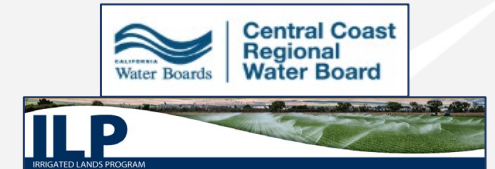


Paula Richter, Senior Environmental Scientist
Project Lead

Introductions

- **Irrigated Lands Program**

Paula Richter, Senior Environmental Scientist



- **Central Coast Water Quality Preservation, Inc.**

Sarah Lopez, Executive Director



- **Monterey County Resource Conservation District**

Adrienne Carter, Civil Engineer



Goals



- Share findings of Alisal Creek watershed issues.
- Explain the third-party program's surface water follow-up implementation compliance pathway.
- Explain the individual compliance pathway for surface water follow-up implementation.
- Explore potential solutions to resolve erosion and sediment discharge issues in the Alisal Creek watershed.
- Discuss next steps!

Agenda



- Complaint and Water Quality Issues Overview
- Alisal Creek Watershed Conditions
- Third-Party Compliance Pathway
- **Lunch Break (Noon)**
- Agricultural Order Requirements
- Individual Compliance Pathway
- Potential Solutions
- Next Steps
- Brainstorming Session



Working Toward Solutions to Water Quality Issues

Erosion and Sediment Discharges

Alisal Creek Watershed

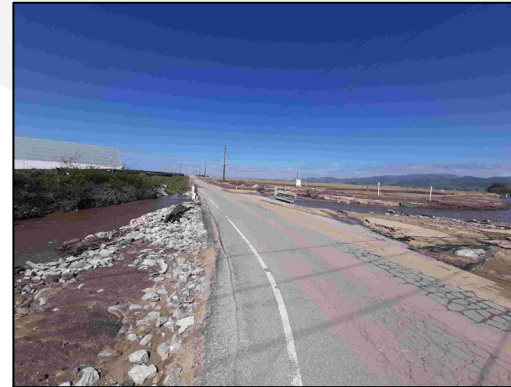
- **Cooperative Approach**

- Coordination and Engagement with Interested Parties
- Iterative and Adaptive Decision-Making Process
- Iterative and Adaptive Planning and Implementation
- Focused on minimizing erosion and sediment discharges



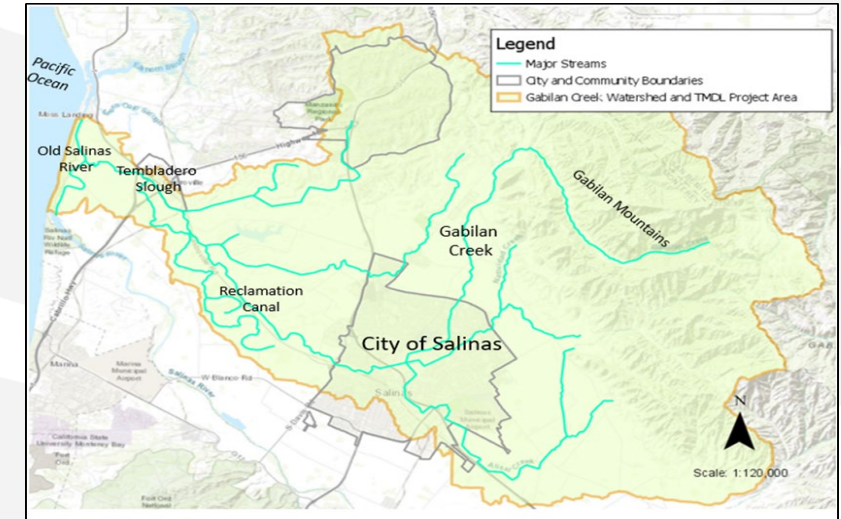
Multiple Discharger Complaint Overview

- Complaint of ongoing erosion and sediment discharges.
- Multiple ranches, multiple operations, multiple landowners.
- Plus ... other potential sources.
 - Cannabis greenhouse operations
 - Industrial facilities
 - Rural roads
- Pilot Project



Monterey County Public Works, Facilities and Parks Housing and Community Development Nonpoint Source TMDL Project

- Storm drain channel maintenance
- Rural road improvements
- Vegetated roadside ditches
- Public education and outreach
- Water quality monitoring
- **Implementation timeline**



Project Area Map and Photos

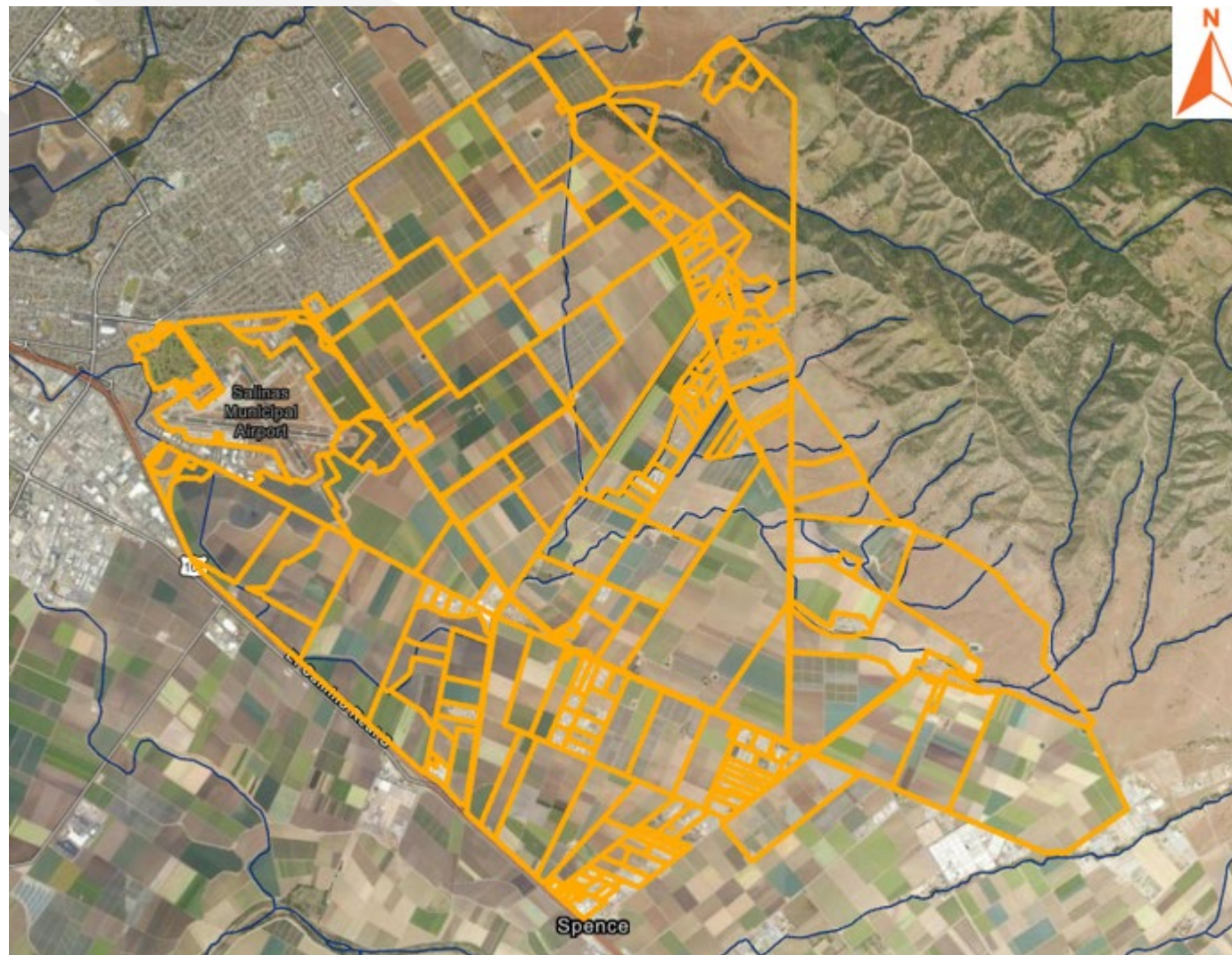


Complaint Case Follow-Up

- Complaint notifications issued to operators in September 2024. ✓
- Sediment and Erosion Management Plan (SEMP) submissions to the ILP or Preservation, Inc. ✓
 - SEMP Completeness Reviews by Preservation, Inc. ✓
 - SEMP Self-Assessments by Operators ... **in progress**.

Watershed Delineation

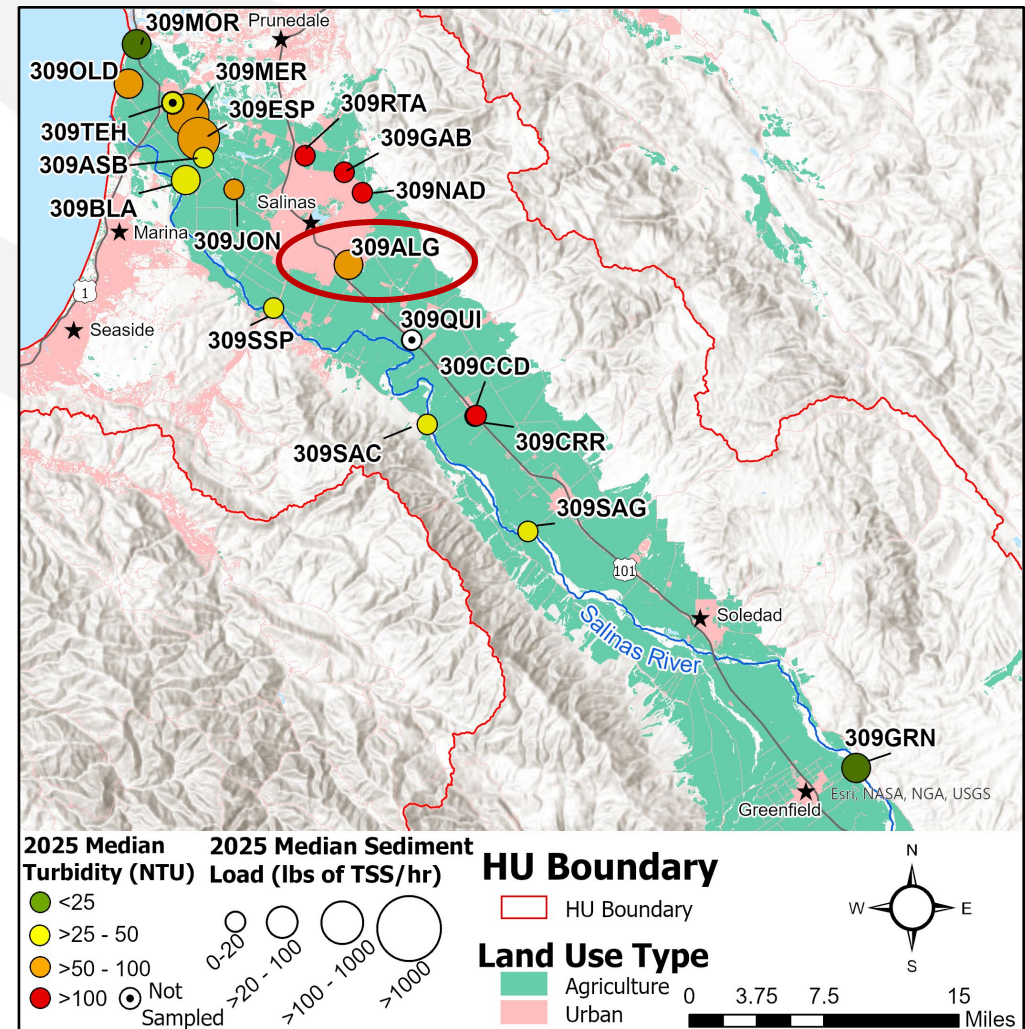
Dominated by row crops and greenhouse nurseries.



Alisal Creek Watershed Water Quality Issues (Turbidity & TSS)

- Seven sites in the Salinas Hydrologic Unit have a maximum turbidity greater than 1,000 NTU.
- The Salinas Reclamation Canal at La Guardia Street (309ALG) CMP Monitoring Site for the Alisal Creek watershed is one of those seven.

2025 CMP Annual Report, Preservation, Inc.



Key Takeaways

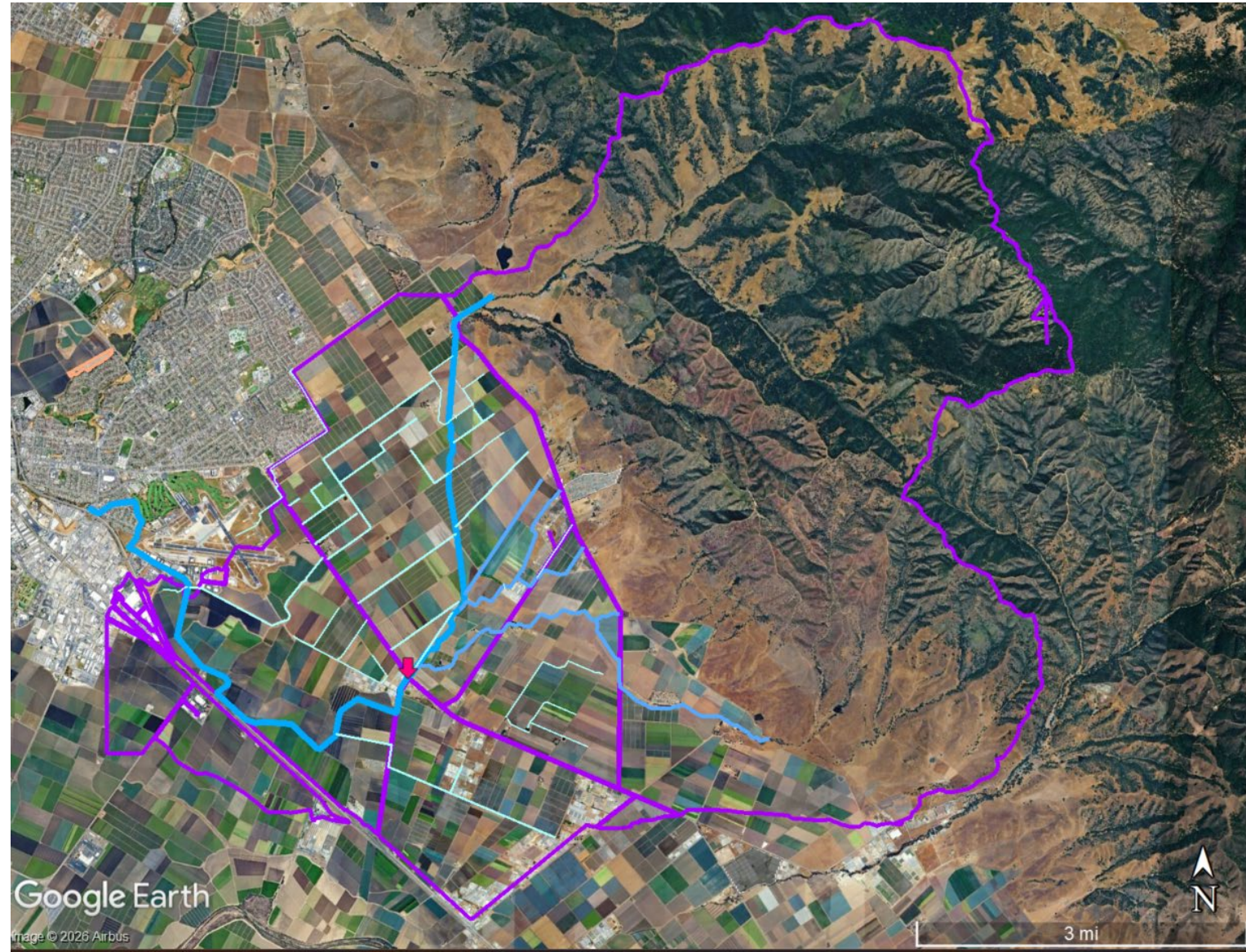
- Meeting the surface water limit for turbidity by 2032 is going to be challenging for growers and landowners.
 - The time to take action is now!
- Many of the management measures implemented to reduce sediment loading will also reduce loading for nearly all nutrients and many pesticides.



ANY
QUESTIONS

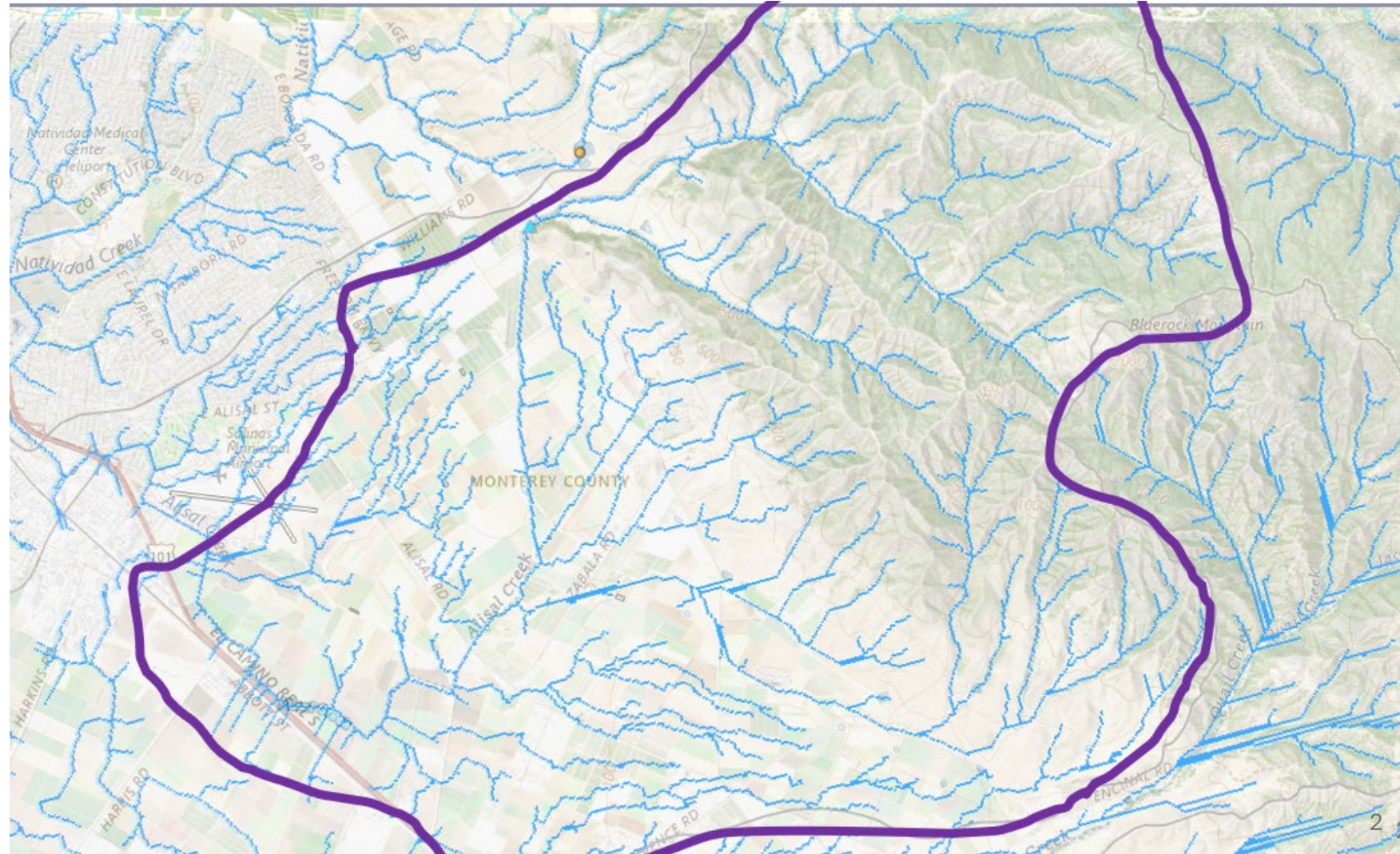
Alisal Watershed and Landscape Features

- Headwaters in the hills
- Foothills transition
 - Slopes, soils
 - Network of tributaries
 - Time of concentration & confluences “pinch point” lead to slowed velocity, deposition of sediment
- Valley floor with rich soils



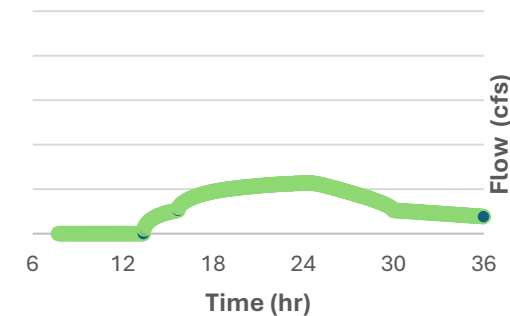
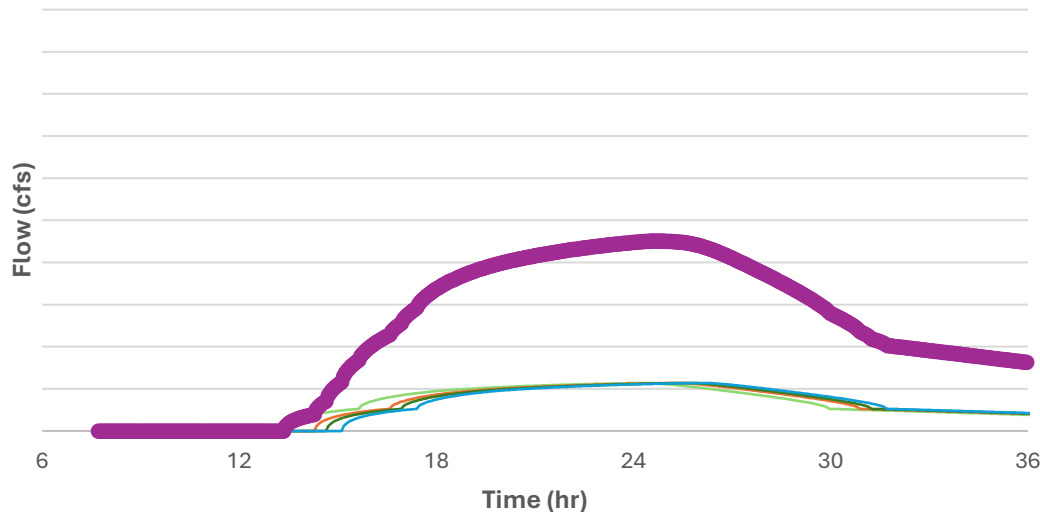
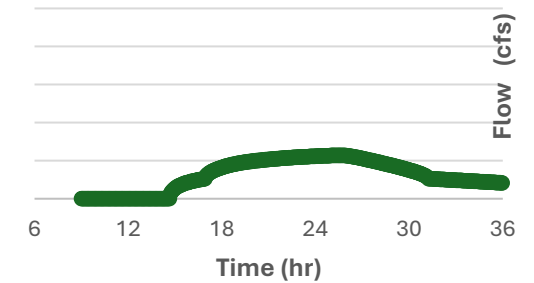
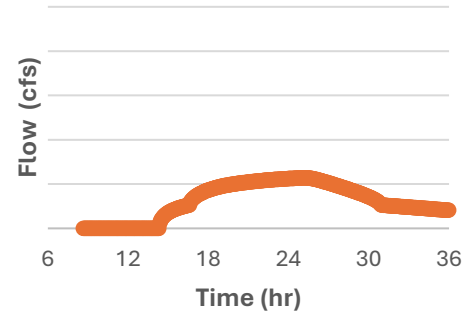
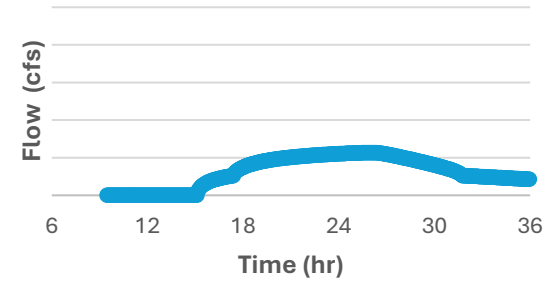
Alisal Watershed and Landscape Features

- Watershed has network of channels where surface runoff concentrates



Alisal Watershed and Landscape Features

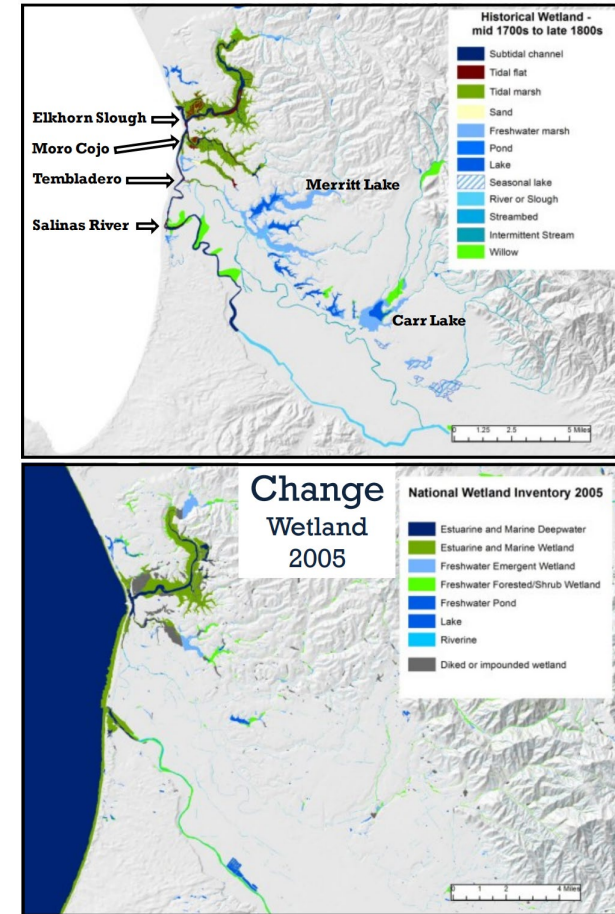
- Flow from each sub-area concentrates lower in the watershed



Alisal Watershed and Landscape Features

What's changed?

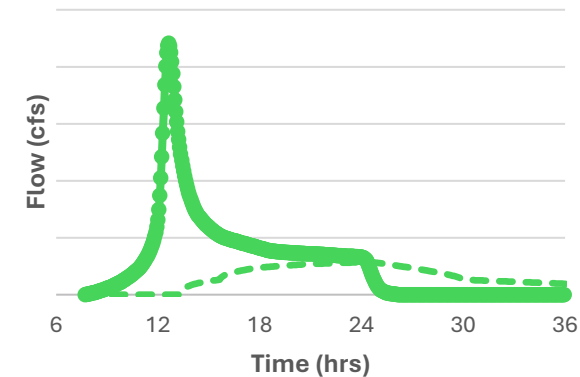
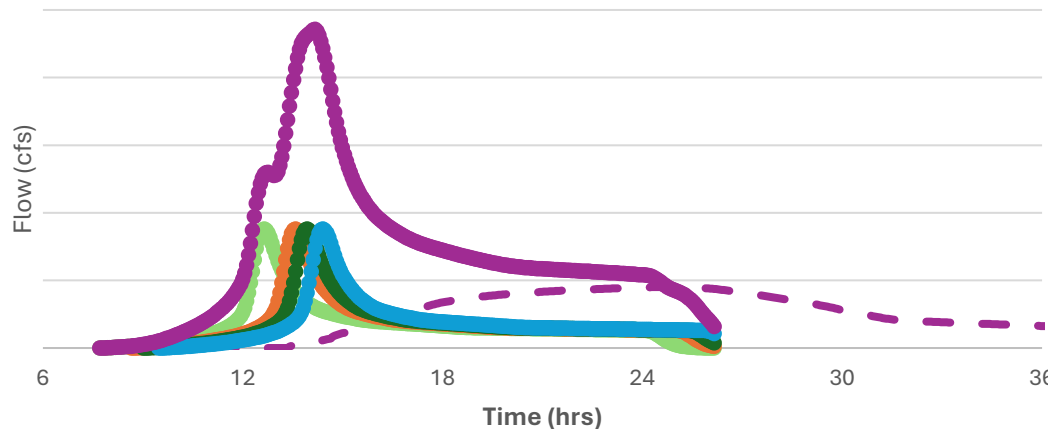
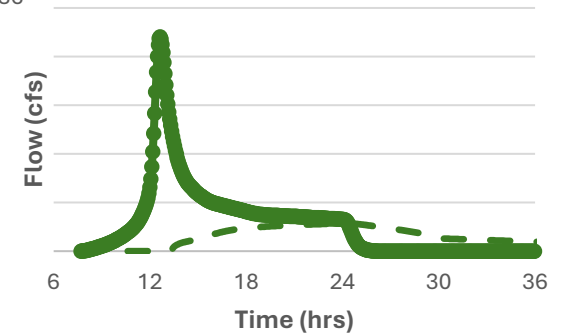
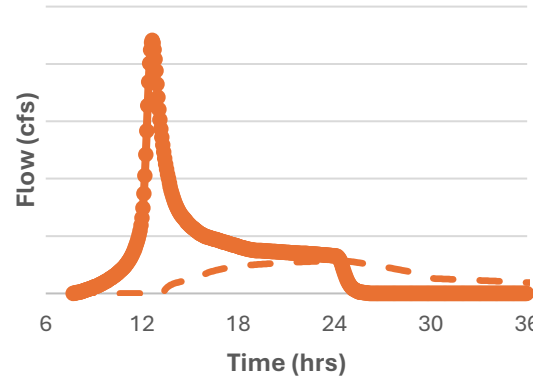
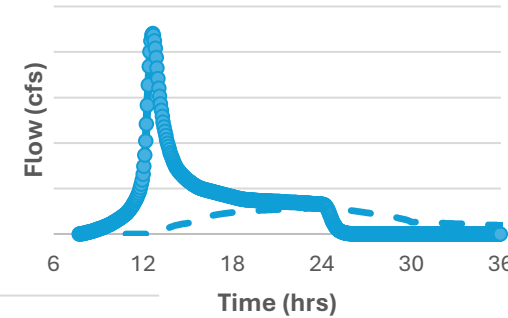
- Higher flows
 - Increased farmed acreage
 - Farming practices
 - Farm composition
 - Reduced vegetation in channels
- Altered soil structure
 - Depth & frequency of disking
 - Increased irrigation
- Where and how runoff is conveyed
 - Dewatered fields & channelized flow



http://www.elkhornsloughcwp.org/uploads/files/1433534948Woolfolk_Historical_Wetlands_N_Monterey.pdf

Alisal Watershed and Landscape Features

- We've impacted the amount of runoff and where the runoff flows



Alisal Watershed and Landscape Features

Why does it matter?

- Need to **reduce mobilized sediment**
 - **TO** the channels
 - **WITHIN** channels
- On-farm practices **reduce the amount of sediment** entering the channel
- On-farm practices also **reduce the flow rate** entering the channel which is important because the channels also erode and become a source of sediment downstream
- Steep slopes and bare soils **reduce capacity** in channels

Alisal Watershed and Landscape Features

Why does it matter?

- Erosion caused by **friction (shear stress)** on soil particles
- Shear stress is a function of velocity
- **Velocity (v, ft/s)** is a function of the **flow rate (Q, cfs)** in the channel and the channel **cross-sectional area (A, sf)**



$$Q = v A \rightarrow v = Q / A$$

Example: Keep velocity under 3 ft/sec

1" rain in 24-hr on 100 ac field (sandy & loamy soils)

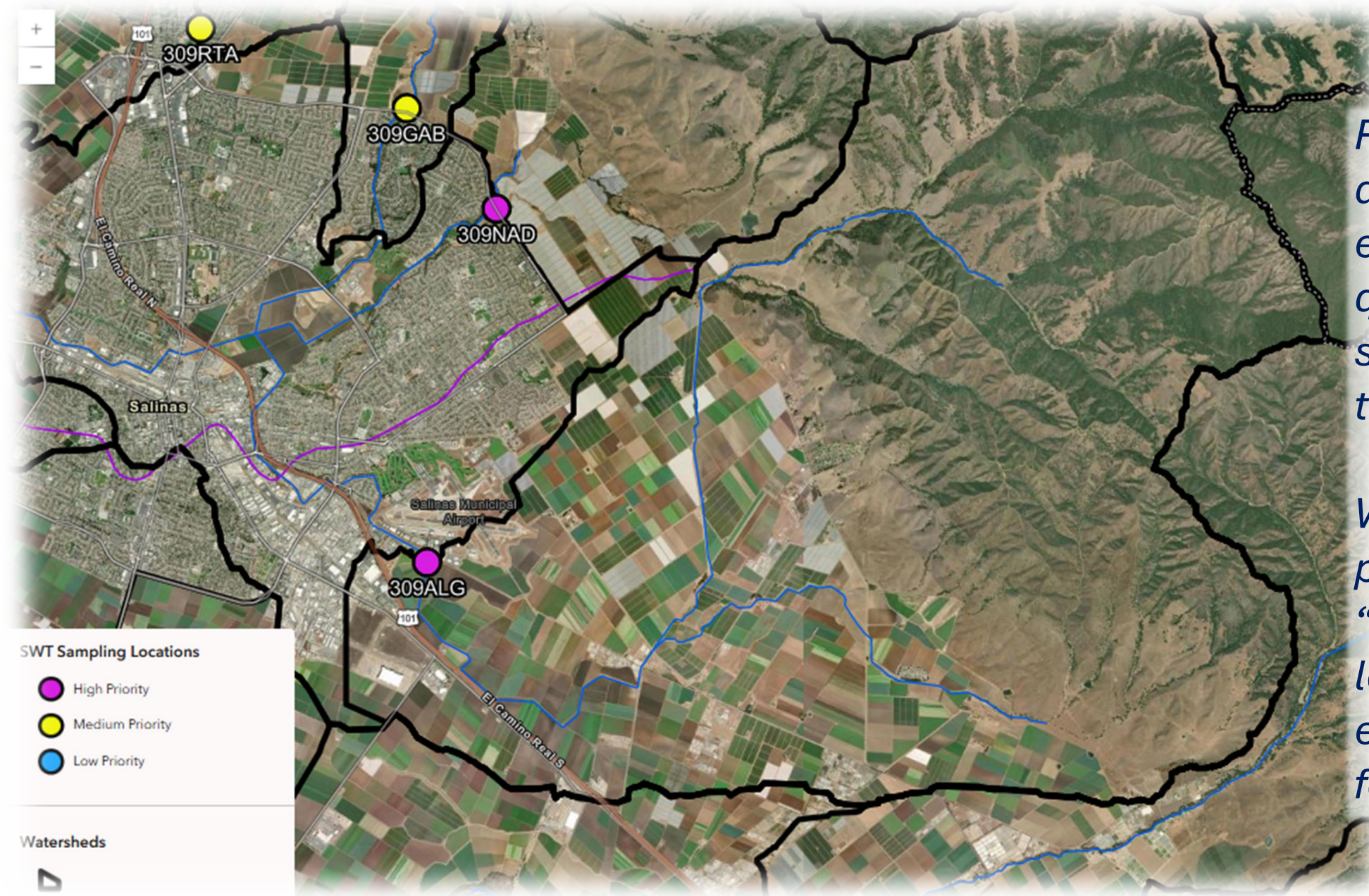
- *Then (pasture): ~0.5 cfs*
- *Now (row crop veggies): ~3.0 cfs*

Why has Q increased?

How does the Channel Area (A) need to change??

Questions?

Alisal Watershed

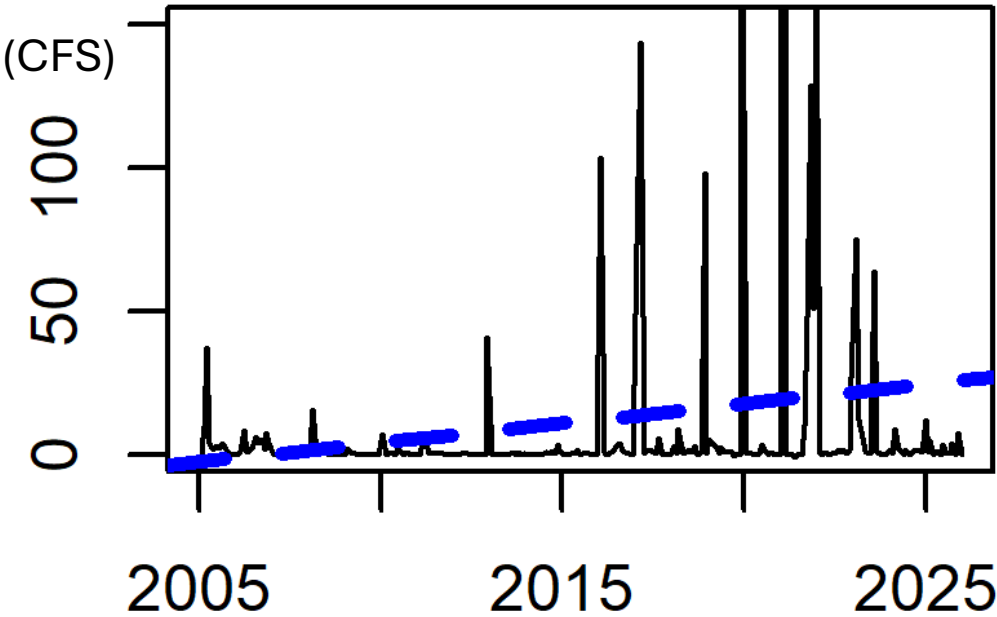


Ranked “High Priority” due to repeated, high exceedances of water quality objectives for sediment, nitrate and toxicity/pesticides.

Watersheds with lower priorities (“Medium” or “Low”) have lower or less frequent exceedances, and/or for fewer constituents.

Alisal Creek in 2025 & Prior – Stream Flow

309ALG

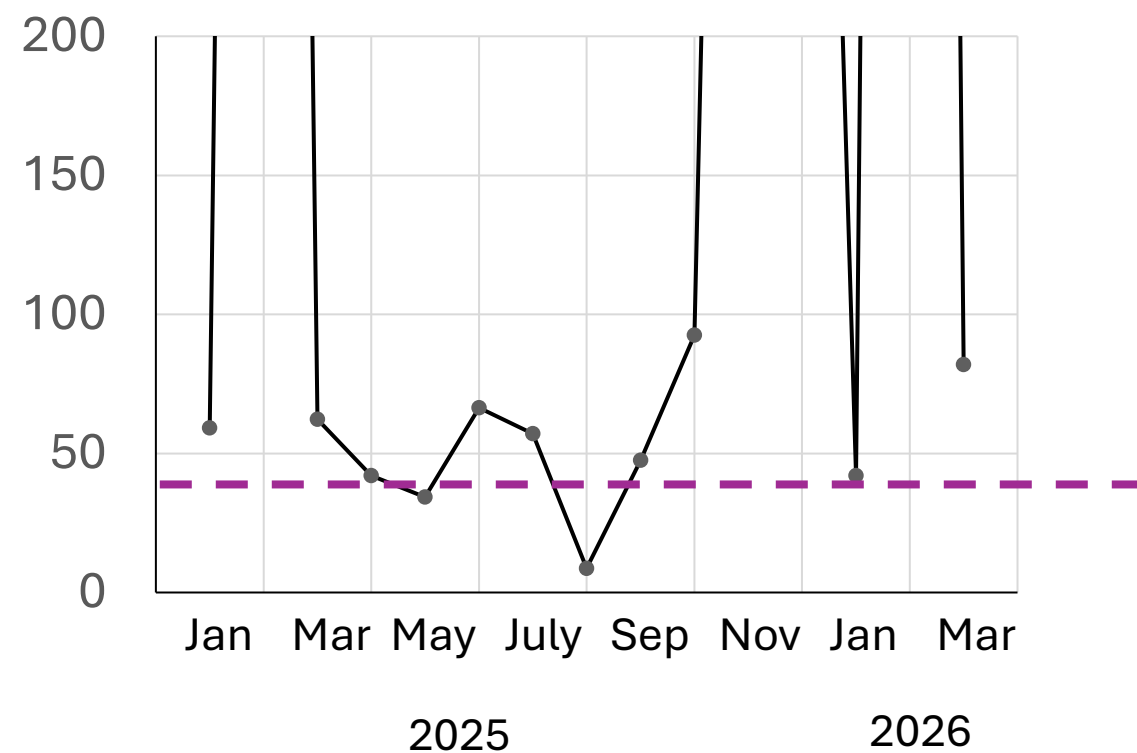
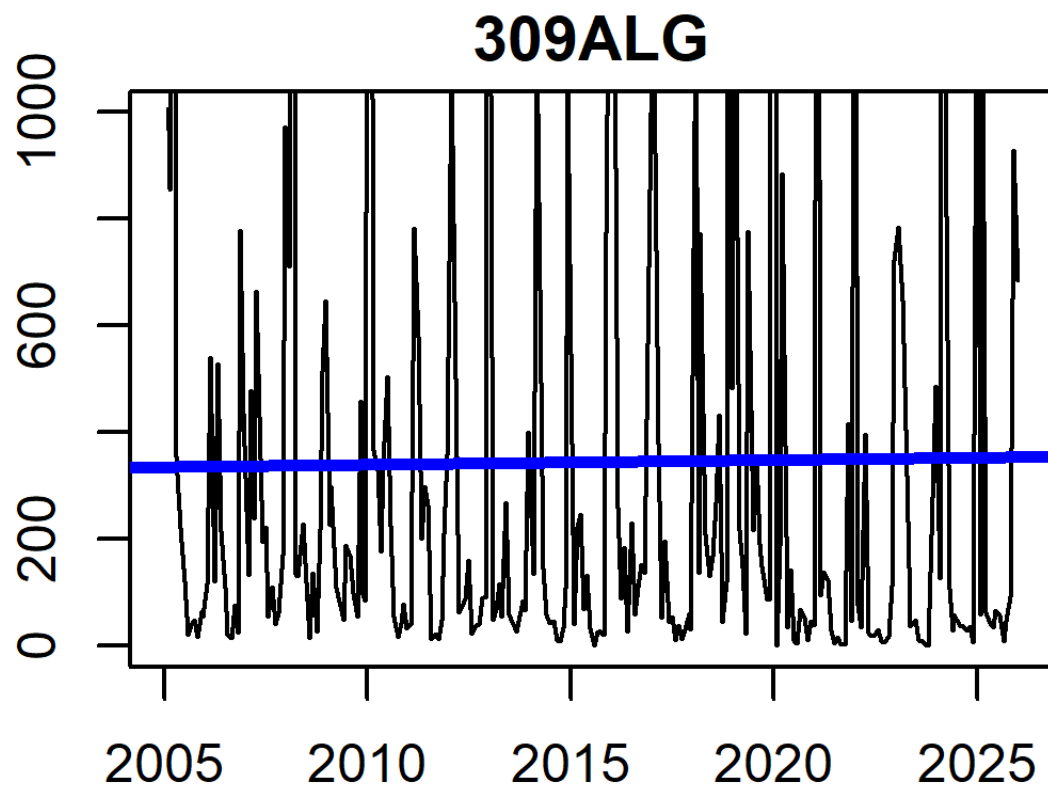


Monitoring Site	Median Stream Flow in 2025 (CFS)	Max Flow in 2025 (CFS)
Santa Rita / Little Bear Creek	Dry	60
Gabilan Creek at Boronda Rd	Dry	45
Natividad Creek at Boronda Rd	Dry	75
Alisal Creek at La Guardia St	1 (448 GPM)	8
Quail Creek at Potter Rd	Dry	Dry
Chualar Creek (North Branch)	Dry	Dry
Chualar Creek (South Branch)	Dry	2
Tembladero Slough at Haro St	8 (3600 GPM)	26
Salinas River at Spreckles	20	27
Salinas River at Gonzales	213	297

Alisal Creek in Early 2026 – Stream Flow

			2026 - Q1		
Monitoring Site	Median Stream Flow in 2025 (CFS)	Max Flow in 2025 (CFS)	Jan	Feb	Mar
Santa Rita / Little Bear Creek	Dry	60	0.04	12	Dry
Gabilan Creek at Boronda Rd	Dry	45	Dry	30	Dry
Natividad Creek at Boronda Rd	Dry	75	Dry	21	Dry
Alisal Creek at La Guardia St	1 (448 GPM)	8	0.05	35	-0.27
Quail Creek at Potter Rd	Dry	Dry	Dry	12	Dry
Chualar Creek (North Branch)	Dry	Dry	0.01	60	0.34
Chualar Creek (South Branch)	Dry	2	Dry	16	63
Tembladero Slough at Haro St	8 (3600 GPM)	26	8	3271	9
Salinas River at Spreckles	20	27	63	891	60
Salinas River at Gonzales	213	297	121	154	NS

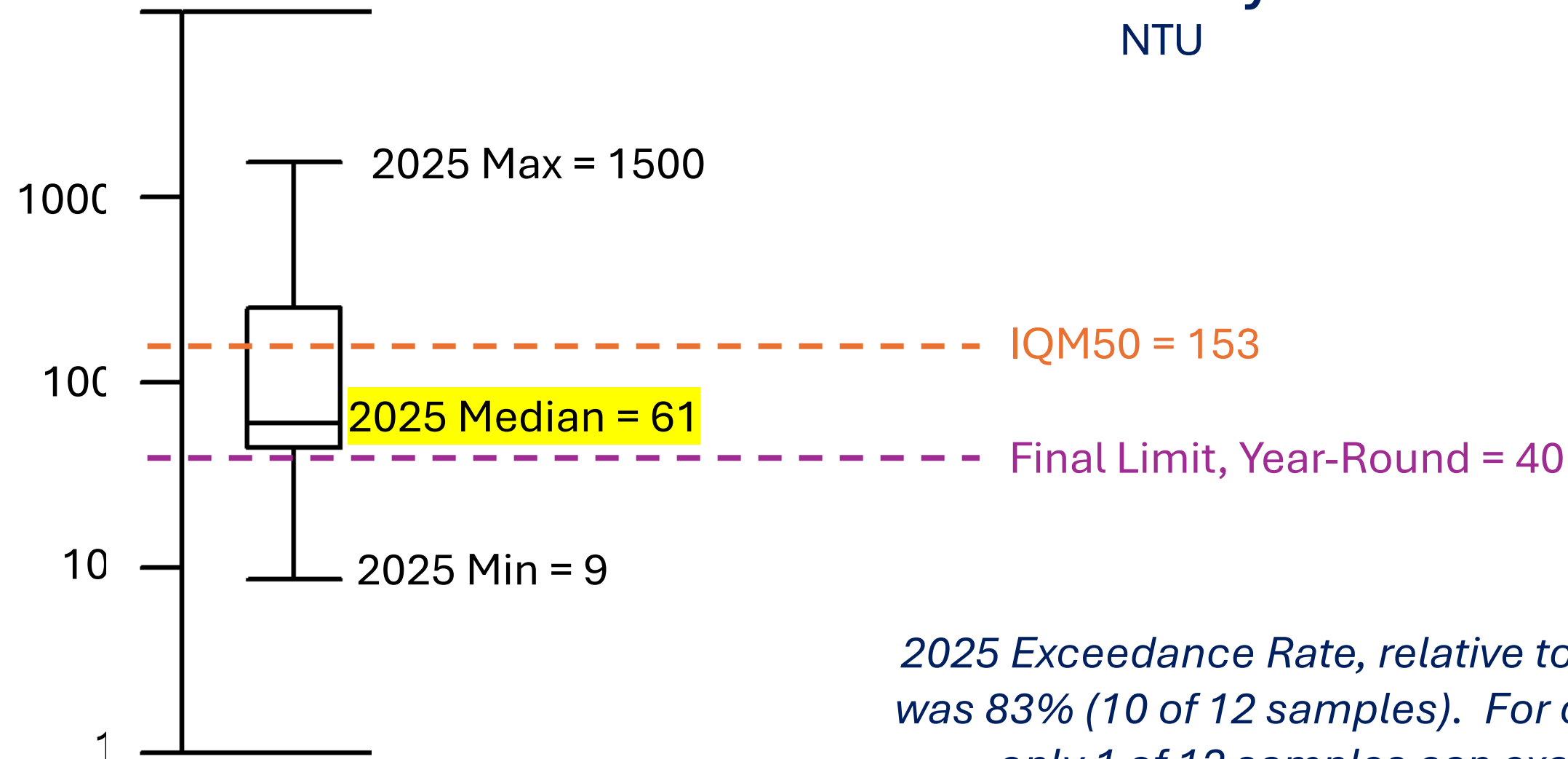
Alisal Creek in 2025 & Prior – Turbidity (NTU)



Alisal Creek

2025 Turbidity Levels

NTU

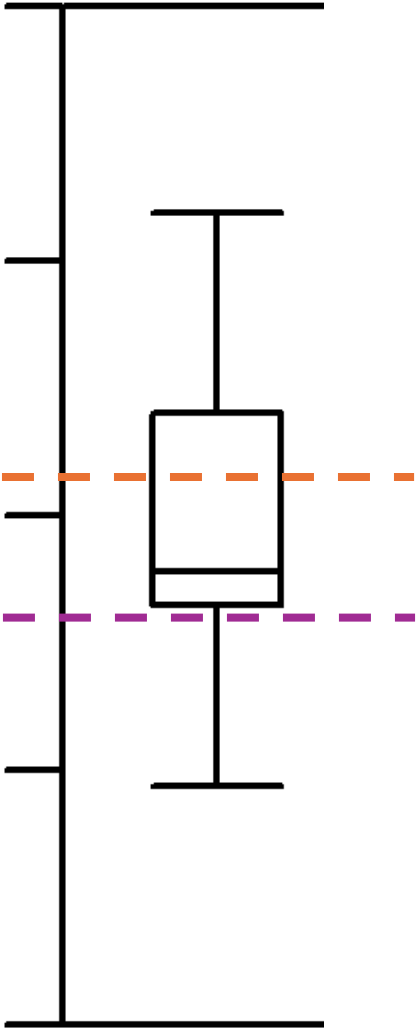


2025 Exceedance Rate, relative to Final Limit, was 83% (10 of 12 samples). For compliance, only 1 of 12 samples can exceed (?)

The Final Limit for Turbidity (by 2032) applies to Alisal Creek as a “non-TMDL” area

In the meantime, an Interim Quantifiable Milestone (IQM) applies, to make progress from a 2023 “baseline condition” to the 2032 Final Limit:

50% progress = IQM50 by 2028 (increased monitoring if not met)



2017/18 Pesticide Study

Required Every 4 Years Since 2017

Top Pesticides Alisal	Recent CMP Detection?	Applied Acreage	Applied Pounds
MALATHION	Yes	5557	10671
METHOMYL	not sampled	3992	2490
IMIDACLOPRID ←	Yes	6945	1724
PERMETHRIN ←	Yes	8397	1281
BIFENTHRIN ←	Yes	11466	1215
ACETAMIPRID ←	Yes	9811	959
THIAMETHOXAM	Yes	12802	747
LAMBDA-CYHALOTHRIN ←	Yes	11036	324
COPPER Compounds	Yes	529	222
CLOTHIANIDIN	Yes	1387	210
CYPERMETHRIN ←	Yes	3380	161
DIMETHOATE ←	Yes	392	134
ESFENVALERATE	No	836	39
CYFLUTHRIN ←	Yes	77	4

2017/18 Pesticide Study

Required Every 4 Years Since 2017

Top Pesticides Alisal	Product
MALATHION	MALATHION 8 AQUAMUL
METHOMYL	DU PONT LANNATE SP INSECTICIDE
IMIDACLOPRID ←	IMIDASHOT DF, ADMIRE PRO, AE F106464 00 SC43 A4 INSECTICIDE, WRANGLER, LEVERAGE 360 , NUPRID 2SC, IMIDASHOT, MACH
PERMETHRIN ←	PERMETHRIN, PERM-UP 25 INSECTICIDE, PERM-UP 25DF, POUNCE
BIFENTHRIN ←	BRIGADE WSB INSECTICIDE/MITICIDE, SNIPER, BIFENTURE 10DF
ACETAMIPRID ←	ANARCHY 70 WP, ASSAIL 30SG,
THIAMETHOXAM	ACTARA, FLAGSHIP, PLATINUM, VOLIUM FLEXI
LAMBDA-CYHALOTHRIN	SCIMITAR GC INSECTICIDE, WARRIOR II WITH ZEON, LAMBDA-CY EC INSECTICIDE-RUP, BESIEGE INSECTICIDE, SILENCER VXM,
COPPER Compounds	CHAMP FORMULA 2, BADGE X2, CUEVA FUNGICIDE
CLOTHIANIDIN	BELAY INSECTICIDE
CYPERMETHRIN ←	MUSTANG INSECTICIDE
DIMETHOATE ←	DREXEL DIMETHOATE LV
ESFENVALERATE	ASANA XL INSECTICIDE
CYFLUTHRIN ←	DECATHLON 20 WP GREENHOUSE AND NURSERY INSECTICIDE

2008 “Upstream Monitoring” Study Required by First Ag Order

(average values)

Parameter	Upstream Site Hartnell Rd.	Primary Site La Guardia
Flow (CFS)	2.1	1.9
Flow (GPM)	943	853
Nitrate as N (mg/L)	27	24
Nitrate Load (lbs/hr)	6	8
Turbidity (NTU)	1277	490
Flow-weighted Turbidity	5390	4200
Toxicity in Water	complete mortality, 4x	
Toxicity in Sediment	complete mortality, 2x	



Some/all of the flow at La Guardia can be accounted for by flows starting at or above Hartnell Rd.

The nitrate concentration at Hartnell Rd. is just as high (and sometimes higher) as the concentration at La Guardia; some dilution/removal may occur in between.

About 75% of the nitrate load at La Guardia comes from Hartnell Rd. or upstream; about 25% of the load comes in between the two sites.

The turbidity at Hartnell Rd. is often much higher than at La Guardia; dilution and/or removal (settling) occurs in between.

More sediment (by weight) is present at Hartnell Rd. than at La Guardia; some sediment settles out in between the two sites.

Both sites are highly toxic. Toxicity clearly starts at or above Hartnell Rd. This may be responsible for toxicity at La Guardia, or additional toxic discharges may enter in between.

Questions?

Third Party Surface Water Follow-Up Program*

(SWFP or 3P-SWFP)

**within the Ag Order and for compliance purposes, this is referred to as the
“Surface Water Follow-Up Implementation Third Party Compliance Pathway”*

Surface Water Follow-Up

The term “Follow-Up” is short for Surface Receiving Water Follow-Up Implementation. This is a requirement that comes from Ag Order 4.0 and applies to every ranch on the Central Coast. The goal of Follow-Up is to resolve repeated exceedances of water quality limits in agricultural watersheds. To that end, it requires source identification and the reduction of water quality impairments. It also requires actions like education, more monitoring/reporting, and increased management practices. These activities must measurably improve water quality... enough for area streams to meet Ag Order numeric limits.

Getting Started with Individual or Third Party Follow-Up

Individual: Growers who choose to conduct Follow-Up individually need to submit their own Work Plan, Sampling & Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) to the Central Coast Water Board. The deadlines for these have all expired, and individuals without a Work Plan, SAP and QAPP are at risk of enforcement by the Water Board. For more information about Individual Surface Water Follow-Up, [click here](#).

Third Party: Preservation, Inc. has already submitted a Work Plan, SAP and QAPP on behalf of our participating members. Our Work Plan is currently in revision and has not yet been approved by the Water Board. Please contact office@ccwqp.org for more information. Members with good-standing participation status in Third Party Follow-Up do not need to submit their own Work Plan, SAP or QAPP. [Click here to opt in](#) to the Third Party Follow-Up program.

www.ccwqp.org/swfollowup

Third Party Surface Water Follow-Up Program (SWFP)

Participants in the Third Party SWFP need to do three things:

1. Observe your runoff (discharge)
2. Perform [Self-Assessment](#), based on your observations
3. Update [Farm Plan](#) management practices
4. Repeat Steps 1-3!

Your Self-Assessment results should inform your management updates, and your management updates should result in measurably improved Self-Assessment results.

Need help getting started with your Farm Plan? Visit our [Farm Plan](#) page or attend a [Workshop](#).

Want to learn more about Self-Assessment and observing your runoff? Visit our [Self-Assessment](#) page or attend a [Workshop](#).

Participants in the Third Party SWFP need to do three things:

1. Observe your runoff (discharge)
2. Perform Self-Assessment, based on your observations
3. Update Farm Plan management practices
4. Repeat Steps 1-3!

In fairness to participating members, High and Medium Priority ranches that have not participated in Third Party Surface Water Follow-Up:

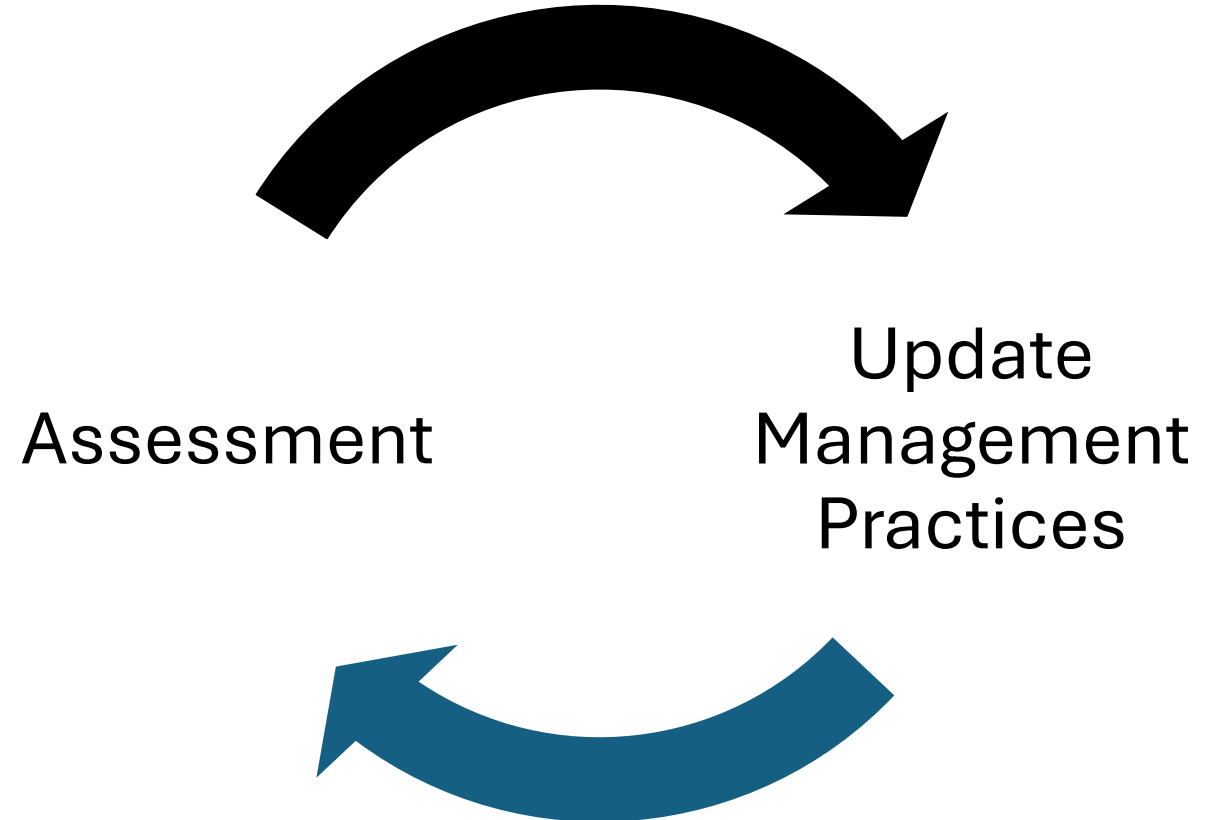
- Are not eligible for general Third Party membership in 2027, OR
- Must immediately demonstrate full compliance with the Individual Follow-Up pathway

** This could change in future*

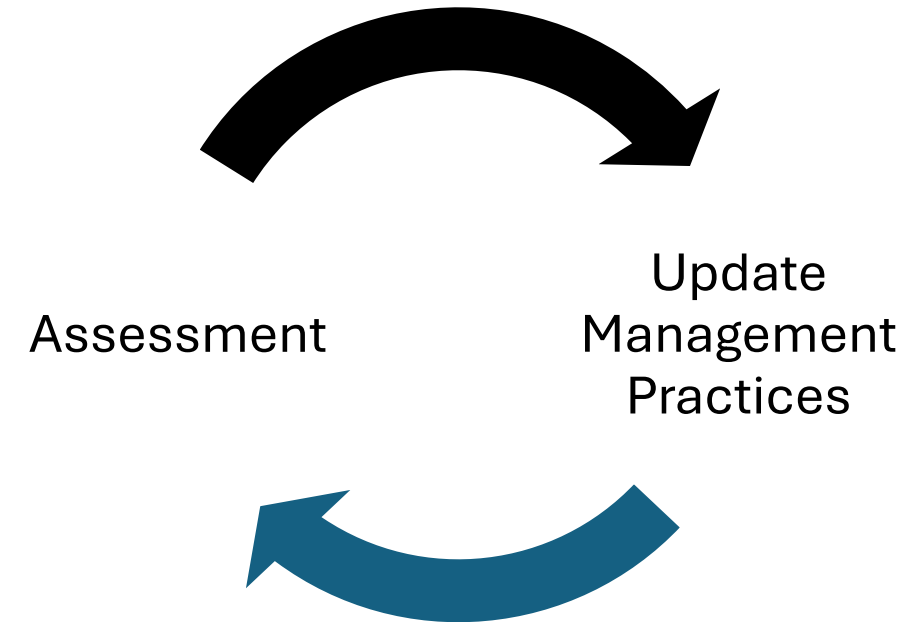
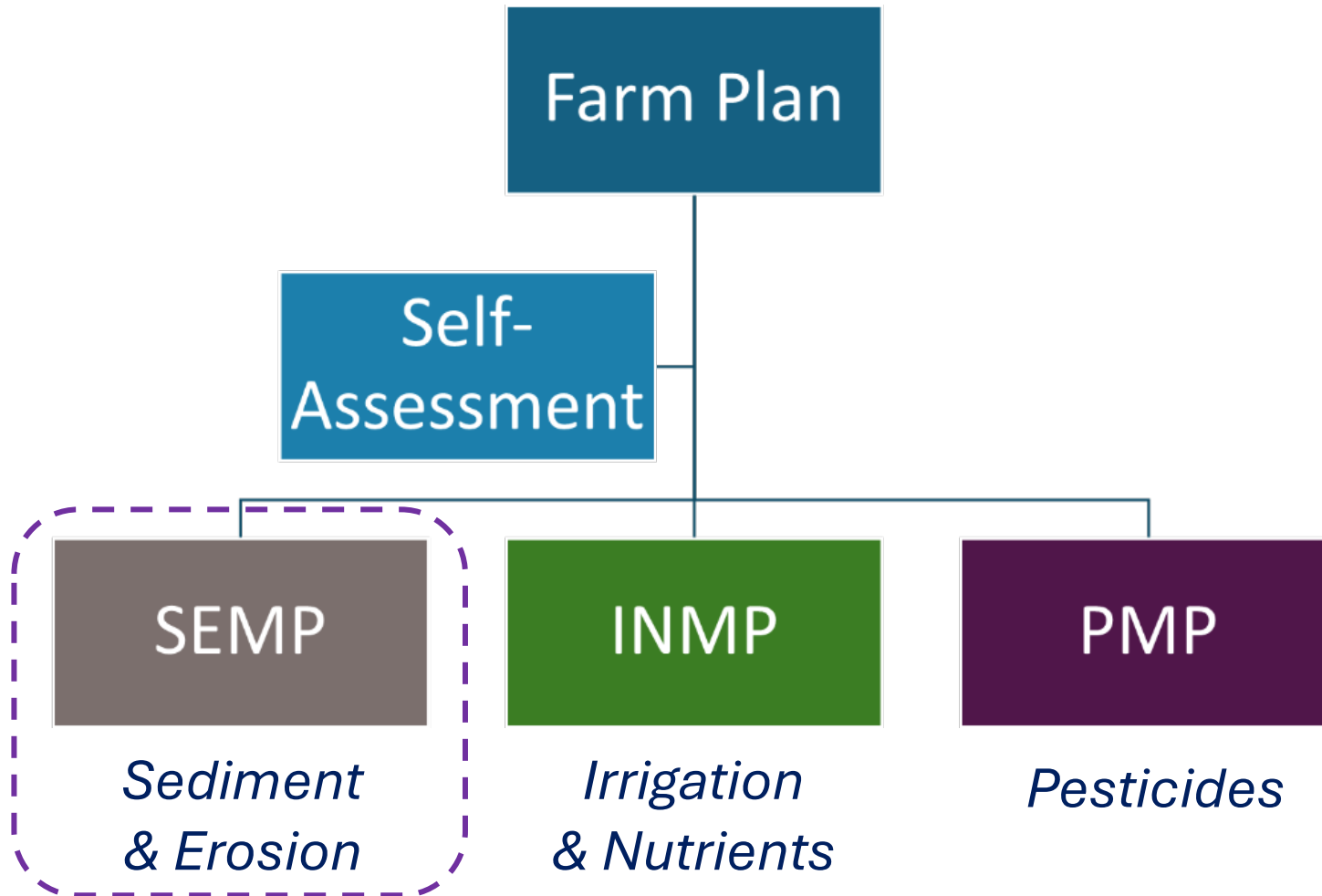
Adaptive Management

Water quality issues identified in your Self-Assessment should inform updates to the management practices in your Farm Plan.

Your updated management practices should result in measurably improved Self-Assessment results.



Farm Plan Elements & Self-Assessment



Self-Assessment for Surface Water Follow-Up

Irrigation Runoff

Storm Runoff

Tile Drains

	Sediment (Turbidity)	Fertilizer (Nitrate)	Toxicity / Pesticides
Irrigation Runoff			
Storm Runoff			
Tile Drains	Not applicable	Not applicable	Not applicable



Self-Assessment for Complaint Response

	Sediment (Turbidity)	Fertilizer (Nitrate)	Toxicity / Pesticides
Irrigation Runoff			
Storm Runoff			
Tile Drains	Not applicable	Not applicable	Not applicable

At Reported Monitoring Sites

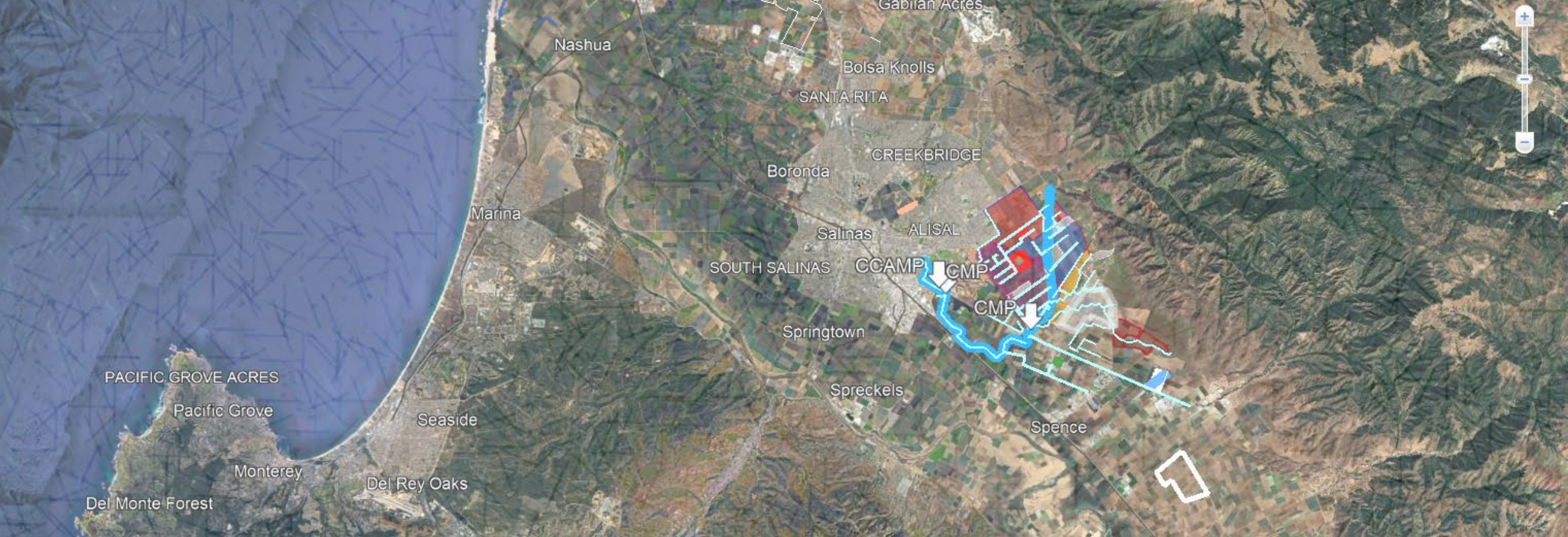
Under storm conditions (2x/year) and non-storm conditions (10x/year):

- Do Turbidity levels meet the IQM50?
- Do Turbidity levels meet Final Limit?

At Your Ranch's Discharge Locations

Under storm conditions and when irrigating:

- Do Turbidity levels meet the IQM50?
- Do Turbidity levels meet Final Limit?



Questions?



We will resume at 11:30AM

Agenda



- Agricultural Order Requirements
- Individual Compliance Pathway
- Potential Solutions
- Next Steps
- Brainstorming Session

Agricultural Order Requirements

- **Both** growers and landowners are responsible for compliance.
- Must submit Farm Plan upon request.
- Must develop and implement a Sediment and Erosion Management Plan (SEMP). The SEMP must be implemented.
- Erosion and sediment discharges must be minimized to protect water quality.
- Must not cause or contribute to water quality objective exceedances.
- Must achieve Total Daily Maximum Load (TMDL) Load Allocations in surface receiving waters.

Agricultural Order Requirements

- Must implement management measures to prevent erosion and soil runoff, reduce stormwater runoff quantity and velocity, and hold fine particles in place.
- Agricultural drainage pumps must be managed to dissipate flow and prevent channel and/or streambank erosion.
- Must comply with applicable stormwater permits.
- Farm roads must be constructed and maintained to minimize erosion and sediment discharges.
- Disturbance of existing, naturally occurring, and established native riparian vegetative cover is prohibited.

Agricultural Order Requirements

- Dischargers can choose to comply with the Agricultural Order requirements either as members of the third-party program or individually.
- This applies to surface water follow-up implementation, as well.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

Objectives

- Identify and abate source(s) of water quality impacts.
- Evaluate the impact of discharges on surface waters.
- Evaluate the condition of waterbodies (e.g., erosion).
- Evaluate compliance with the surface water limits.
- Identify follow-up actions, including outreach, education, additional monitoring and reporting, and management measure implementation that will be implemented to achieve compliance with the surface water limits.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

Work Plan

- Requires submission of a work plan, including a Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) to the Central Coast Water Board for review and approval by the Executive Officer (EO).
- Requires implementation of the work plan once approved.
- Requires submission of all monitoring data and annual reporting to the Central Coast Water Board.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

Follow-Up Monitoring

- Based on water quality data, follow-up monitoring sites may need to be established.
- The SAP must describe how the proposed monitoring will achieve the objectives of the work plan to identify sources of exceedances and evaluate compliance with the surface water limits.
- Requires submission of all follow-up monitoring data and annual reporting to the Central Coast Water Board.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

Ranch-Level Discharge Monitoring and Reporting – Objectives

- Assess and quantify the discharger's contribution to the exceedance of surface water limits.
- Evaluate the effects of the discharge on water quality.
- Demonstrate compliance with surface water limits over time.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

Ranch-Level Discharge Monitoring and Reporting – Work Plan

- Must develop, implement, and submit a work plan and SAP/QAPP to the Central Coast Water Board.
- Requires submission of all monitoring data and annual reporting to the Central Coast Water Board.

Surface Water Follow-Up Implementation

Individual Compliance Pathway

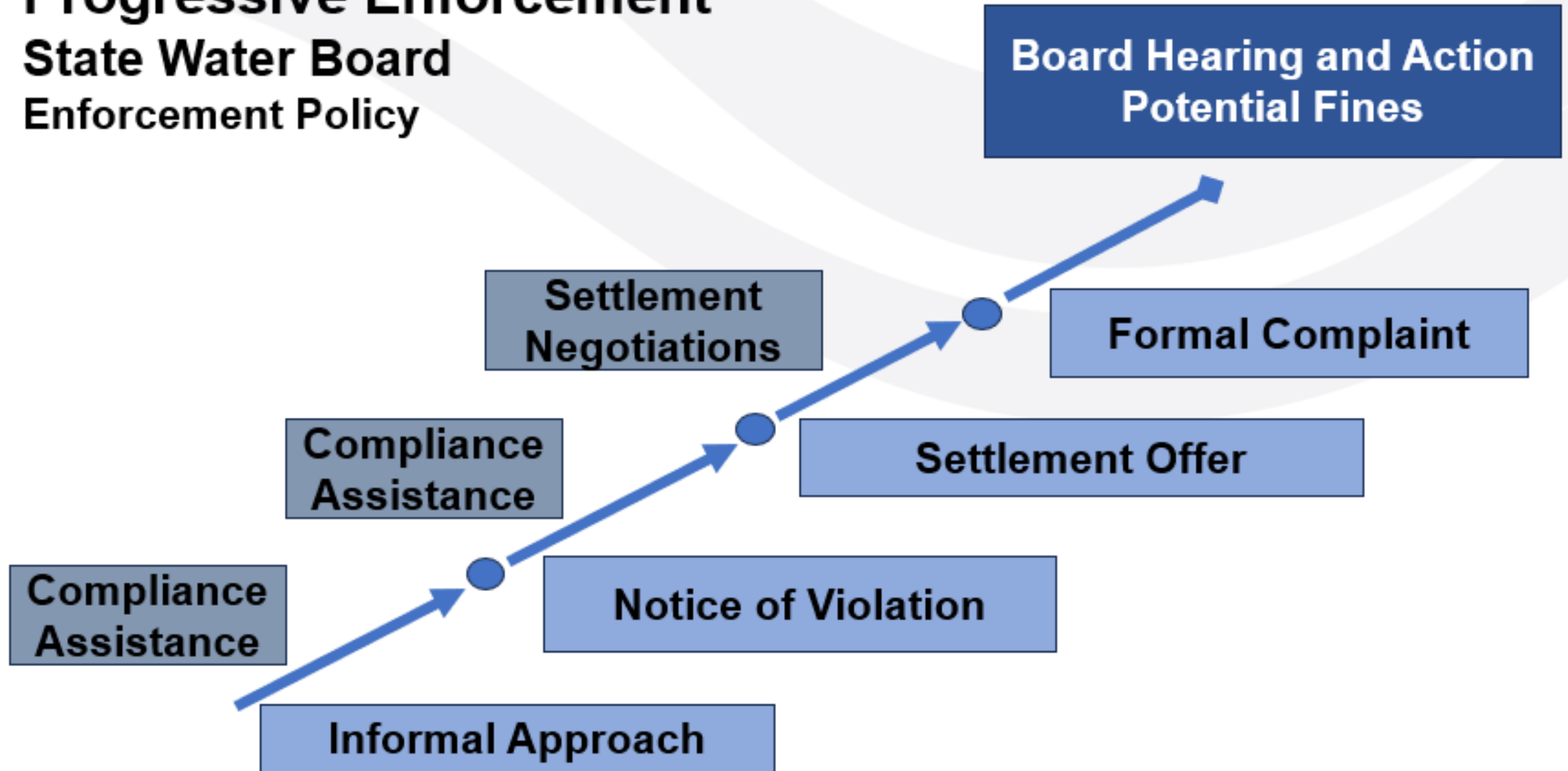
Failure to Comply

- **Failure to comply may result in formal enforcement ... and fines \$\$\$.**
 - Surface water limits.
 - Most of the surface water limits for the Lower Salinas River watershed (including turbidity) must be achieved by December 31, 2032.

Progressive Enforcement

State Water Board

Enforcement Policy





ANY
QUESTIONS

Working Toward Solutions to Water Quality Issues

Erosion and Sediment Discharges

Alisal Creek Watershed

- **Cooperative Approach**

- Coordination and Engagement with Interested Parties
- Iterative and Adaptive Decision-Making Process
- Planning and Implementation
 - Focused on reducing erosion and sediment discharges
 - Ranch-level
 - Watershed-level



Financial Assistance Resources

- **Multi-Benefit / Multi-Party / Watershed-Level Projects**

- More likely to be competitive for financial assistance.
- Formal enforcement may jeopardize grant funding.
- Permitting may be required – check-in early in the planning process

- **State Water Resources Control Board**

- Grant and low interest loan programs.
- May include planning, design, and implementation.
- Watershed protection and nonpoint source pollution control projects.

- **Nonpoint Source (NPS) Pollution Program**

- Administers funds from the United States Environmental Protection Agency through section 319(h) of the federal Clean Water Act.
- Reducing nonpoint source pollution (nutrients, sediment, and pesticides) from various sources including irrigated agricultural lands.

Potential Solutions

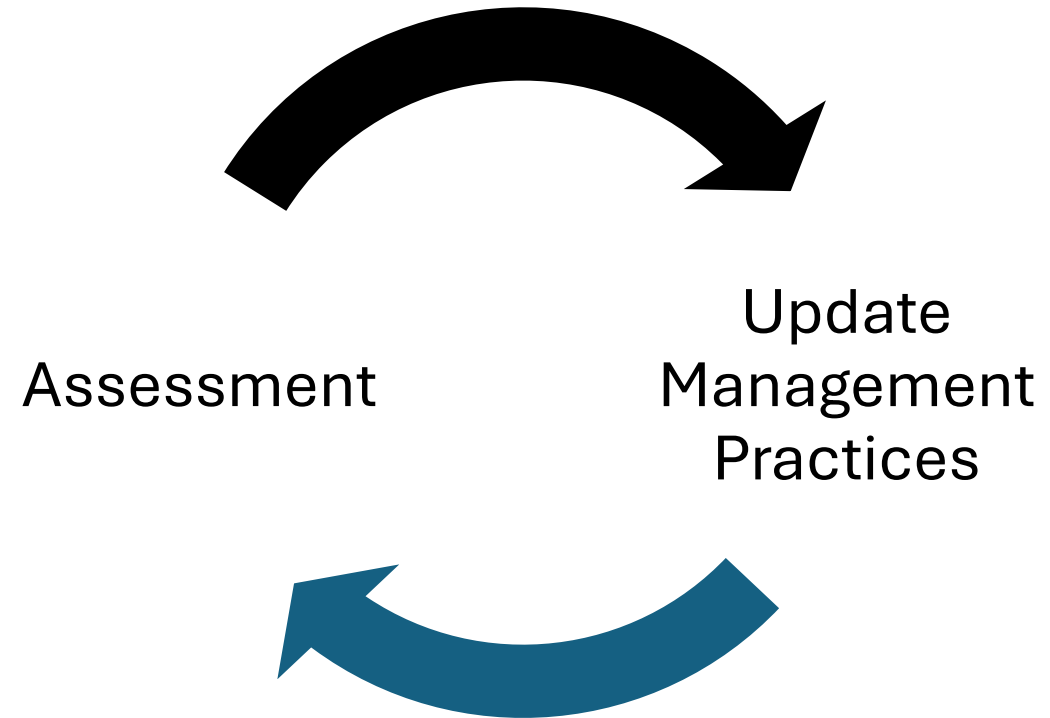
What works for your Ranch?

Any interest in collaborative approaches beyond your Ranch?

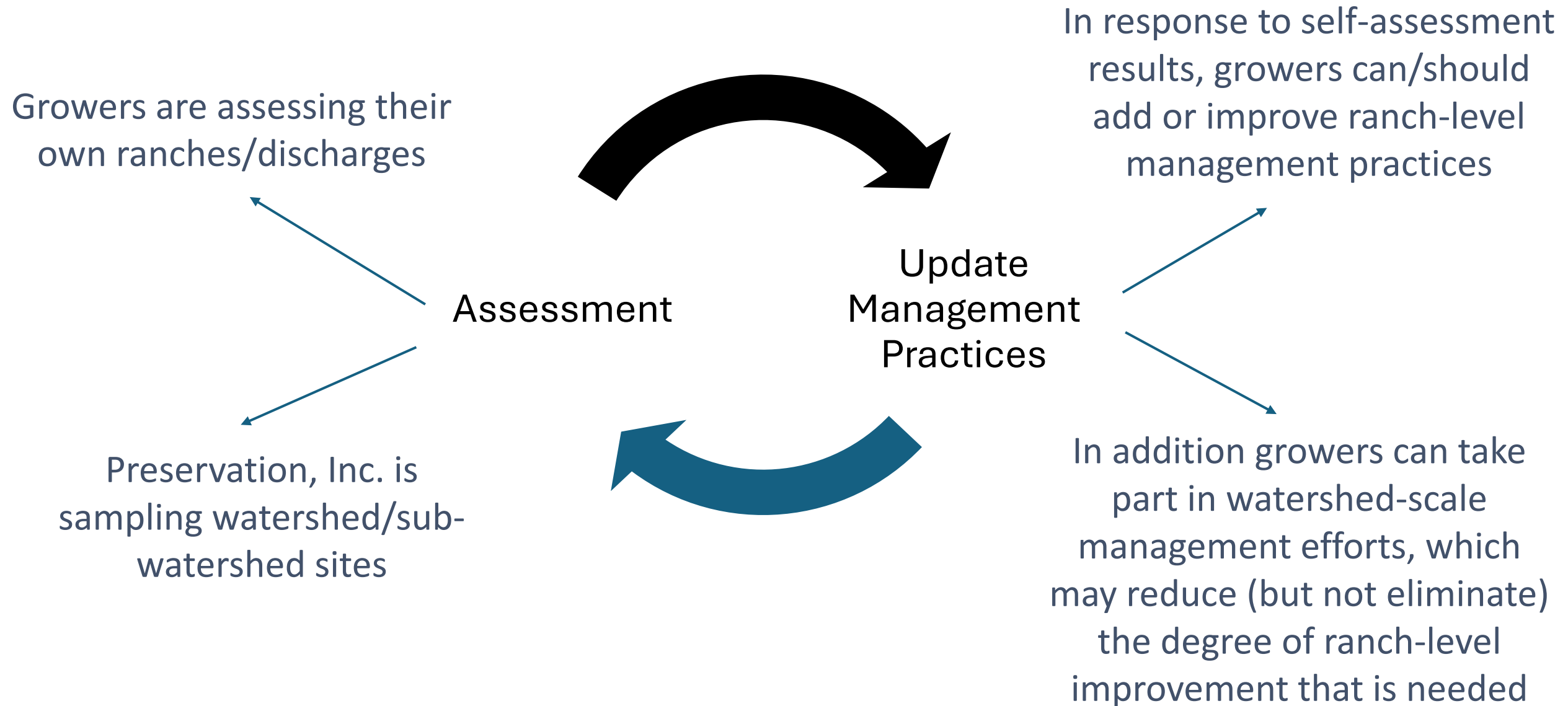
Where do solutions and successes fit
in the Third Party SWFP framework?

Recall that...

... updated management practices
should result in measurably
improved Self-Assessment results.



Assessment can (and should) be performed at the ranch level and at the watershed/
sub-watershed level. Management practices can be implemented at both scales too!



Ranch-Level Management Practices

Prevention – These practices prevent the development of high flows and erosion from happening in the first place, or at least reduce the degree to which they develop. Strong prevention practices can eliminate the need for containment or treatment practices.

Example: Cover Crops

Containment – Once runoff and/or erosion gets started within a ranch, strong containment practices can eliminate the need for treatment practices.

Example: Containment Basins

Treatment – If runoff and/or erosion get started within your ranch and you can't contain it all, treatment practices are needed.

Example: Polyacrylamide (PAM); Slow-Release Basins

Watershed Solutions



Stream sections A and C are stabilized with vegetation, so they can tolerate more discharge from ranches and more in-stream flow (without eroding) than bare-bank section B

Watershed Solutions

5 pilot Watershed Plans with “cooperative treatment systems” and “channel enhancements” were developed by Preservation, Inc., RCD Monterey, and Central Coast Wetlands Group (CCWG)

- None of these watersheds have yet achieved sufficient ranch-level improvements to make the cooperative solutions viable
- Only 2 potential projects have landowner-expressed support
- No projects have landowner commitments

Additional existing “treatment wetlands” are potentially available from CCWG

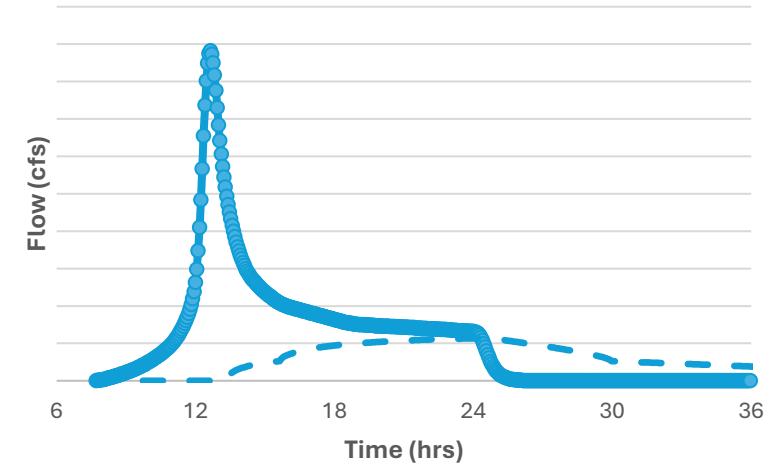
A ranch must lie within the contributing drainage area of an existing or proposed system/project in order to claim that system/project as their management practice (in a Farm Plan update)



Potential Solutions – Ranch Level

Goal: Implement solutions now!

1. Increase Infiltration
2. Safely Direct Runoff
3. Other source control practices
4. Detain & Slow Runoff
5. Combinations?



Potential Solutions – Ranch Level

1. Increase Infiltration - Reduce Runoff

- Row alignment
- Cover crop / Crop Selection
- Improve areas where runoff collects
 - Furrows
 - Ditches



Potential Solutions – Ranch Level

2. Safely Direct Runoff

- Waterbars
- Vegetated Filter Strips and Roads
- Improve ranch ditches (enlarge, vegetate, flatten beds)
- Plastic-Lined Ditches
- Pipe & Armored Outlet



Potential Solutions – Ranch Level

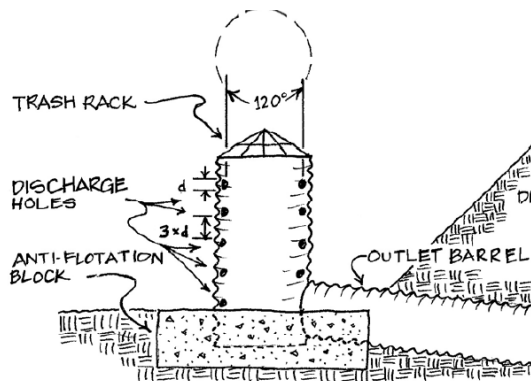
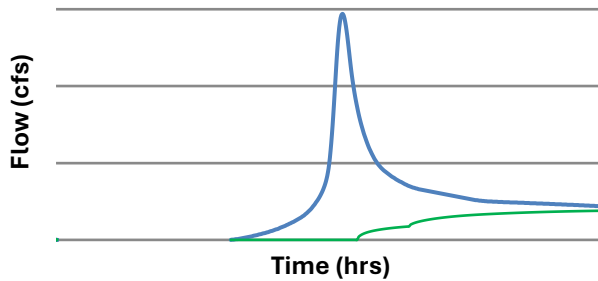
3. Other source control practices:

- Update irrigation scheduling
 - Complete DUs
 - Install Tensiometers
- Convert to drip irrigation from sprinklers
- Improve sprinkler infrastructure
 - Locking irrigation mains, laterals, etc.
 - Check valves on sprinkler heads (reduces dribble)



Potential Solutions – Ranch Level

4. Detain & Slowly Release Runoff



Spillway Figure A: Configuration of discharge holes on outlet pipe.



Stormwater Basins

Install basins to hold runoff following 1" of rain. This will give you a place to direct your stormwater and collect any valuable, eroded topsoil. That also means you're less likely to contribute sediment and nutrients downstream to your neighbors, communal waterways, and the monitoring locations.

Use the Table below to select a "Channel" or "Corner" basin based on what best fits your field

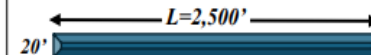
- "Channel" Basins – Enlarged ditches along the edge of the field
 - Larger footprint, but may be easier to install if you have an existing ditch
 - Shallower depth (easier to maintain)
- "Corner" Basins – Install at the lowest corner of the field
 - Smaller footprint
- Both basins have 2:1 side slopes so the +3

Basin for 1" Stormwater Runoff									
Field (ac)	Capacity (ac-ft)	Channel Basin				Corner Basin			
		Size (ac)	L (ft)	W (ft)	D (ft)	Size (ac)	L (ft)	W (ft)	D (ft)
10	0.4	0.2	500	20	4	0.2	120	60	5
20	0.8	0.5	1,000	20	4	0.3	150	75	6
25	1.0	0.6	1,250	20	4	0.3	160	80	6
50	2.0	1.1	2,500	20	4	0.5	200	100	8
75	3.0	1.1	2,250	22	4	0.7	240	120	8
100	3.8	1.5	3,000	22	4	0.8	260	130	8
125	4.7	1.9	3,750	22	4	1.0	300	150	8
150	5.6	2.3	4,500	22	4	1.2	320	160	8
175	6.6	2.7	5,250	22	4	1.3	340	170	8
200	7.5	3.0	6,000	22	4	1.5	360	180	8

Example: 50-ac field

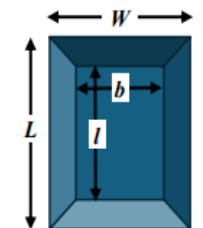
You can build a 1.1-ac "channel" basin along the length of the field using dimensions:

2,500' long x 20' wide x 4' deep



Alternatively, you could build a 0.5-ac basin in the corner of the field using dimensions:

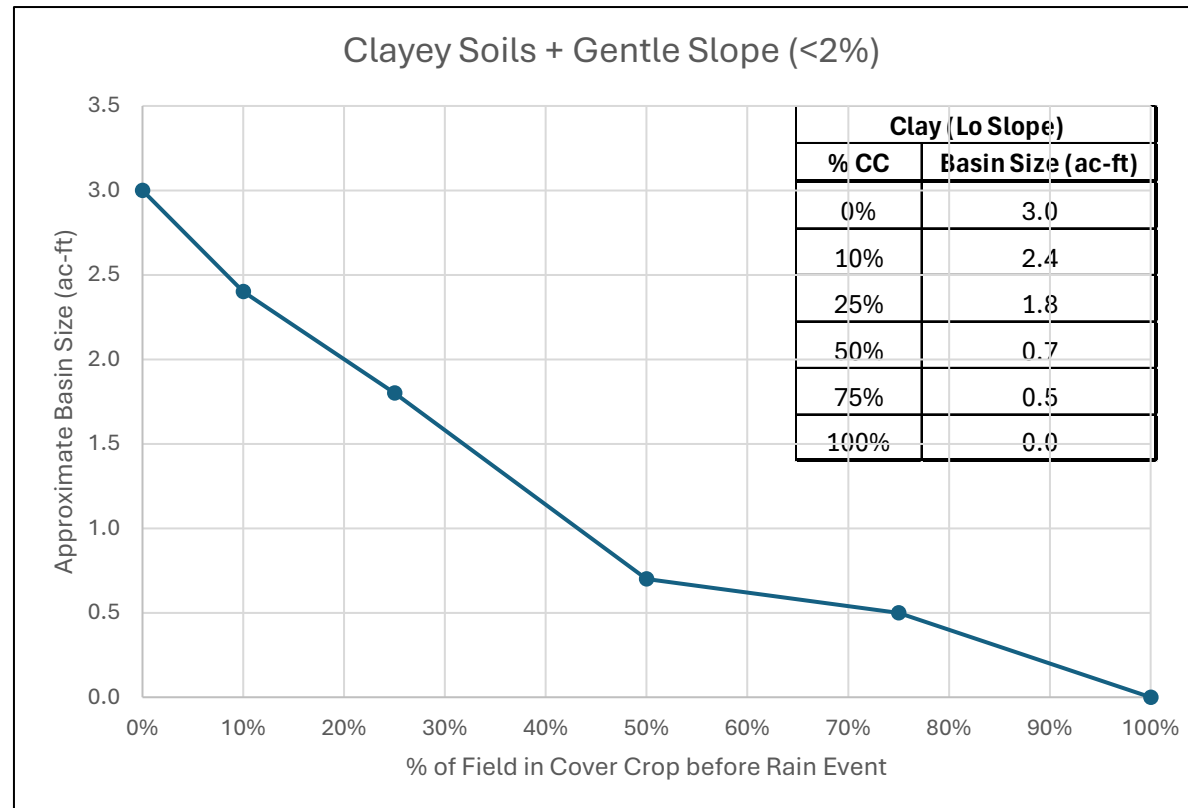
200' long x 100' wide x 8' deep



Potential Solutions – Ranch Level

What management measure is right for your field?

- Cover Crop?
- Basin?
- Combo?
- Work with neighbors?

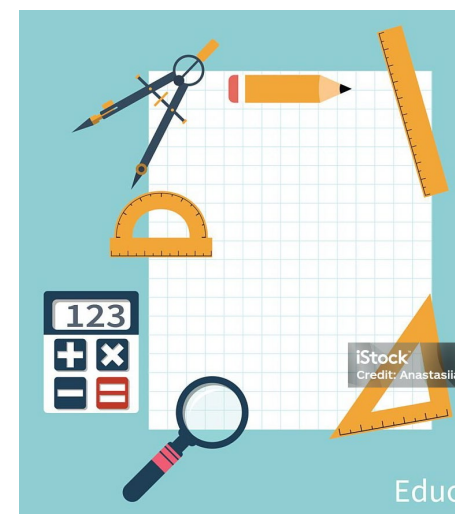


Sandy (Lo Slope)	
% CC	Basin Size (ac-ft)
0%	0.4
10%	0.2
25%	0.0
50%	0.0
75%	0.0
100%	0.0

Sandy soils: Adding 25% cover crop reduces basin size by almost half... or negates need for basin

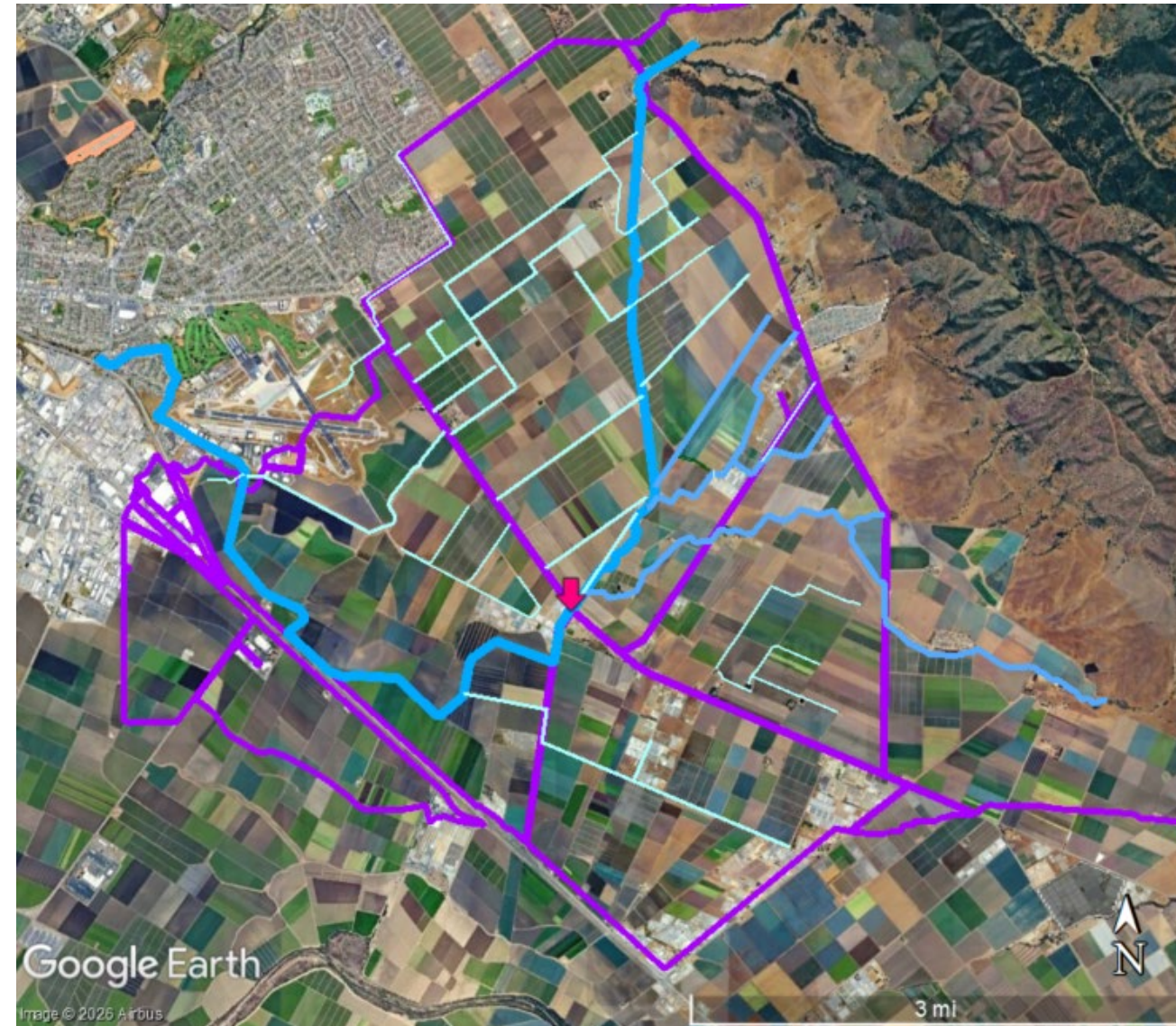
Potential Solutions – Watershed & Sub-Watershed Level

- Considerations
 - Design and permitting **requirements** and costs
 - Complicated due to **multiple stakeholders** for each Reach
- Alisal Creek and Tributaries
 - Stabilizes creek channel and increases capacity
 - Lay back slopes
 - Dissipate outlet flow (especially pump discharge)
 - Revegetate/stabilize slopes
 - Install weirs



Successful Solutions for a Healthy Alisal Creek Watershed

- Source control practices
 - Ranch-level solutions
- Sub-watershed solutions
 - Neighbors develop plans for shared reaches of creek & tributaries
- Watershed-Scale solutions
 - PI continues working with partners on Watershed projects at downstream locations



Questions?

Next Steps ...

- Continued coordination with Preservation, Inc.
- Continued outreach and engagement
- Self-assessments of management measure effectiveness
- Future workshops

LET'S BRAINSTORM !!



ILP Resource Links

- Irrigated Lands Program Website

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/dashboard.html

- Dashboard for Grower Reporting and Water Quality

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/dashboard.html

- Follow-Up Surface Receiving Water Implementation

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/swqmr.html#q2:~:text=ccwqp.org.-,Individual%20Growers,-Individual%20growers%20that

- Ranch-Level Surface Discharge

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/ilp/swqmr.html#q2:~:text=ca.gov.-,Ranch%2DLevel%20Surface%20Discharge,-Growers%20may%20be

Financial Assistance Links

- Central Coast Water Board Website
https://www.waterboards.ca.gov/centralcoast/water_issues/programs/grants/faqs.html#habitat
- California Grants Portal
<https://www.grants.ca.gov/>
- Federal Grants Portal
<https://www.grants.gov/>