

# Teichert Shifler Mining and Reclamation Project

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Yolo County Board of Supervisors

Tuesday, January 11, 2022

# HEARING OVERVIEW

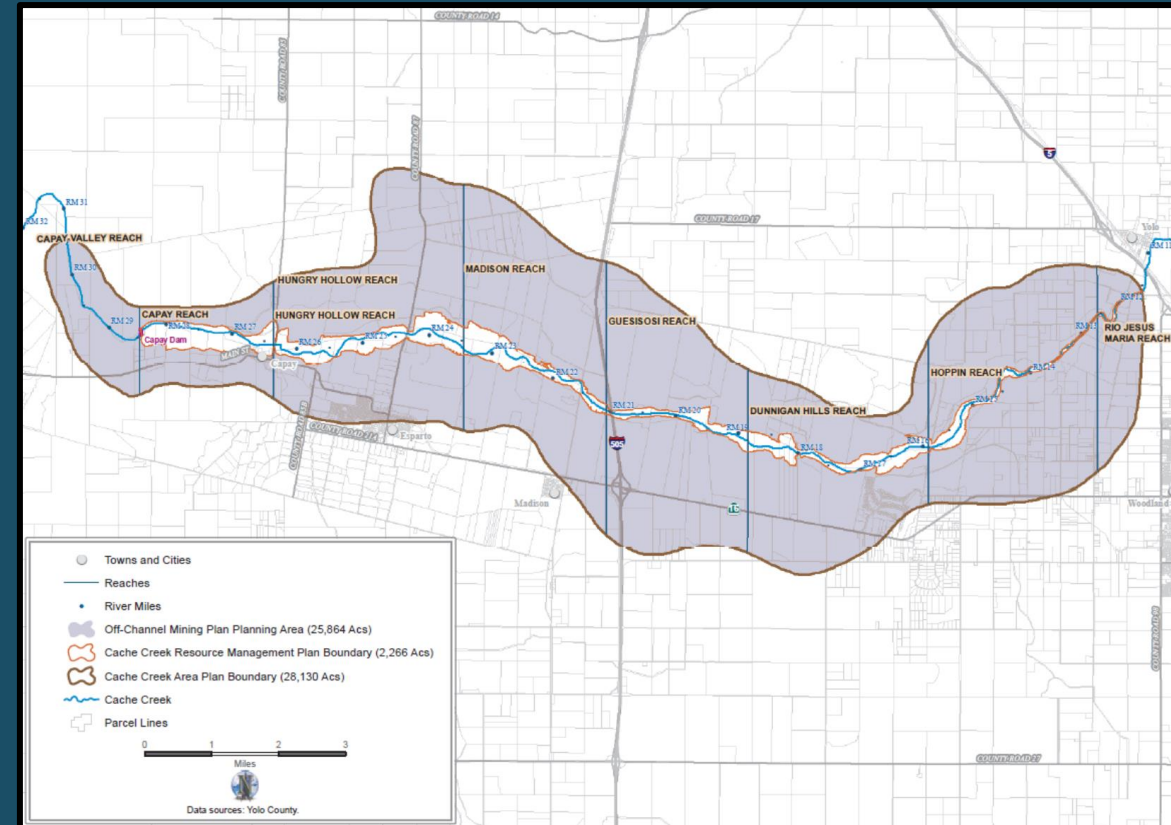
1. Staff Presentation
2. Applicant Remarks
3. Questions from Supervisors
4. Public Hearing
5. Board Discussion
6. Board Action

# AGGREGATES

- Sands and gravels
- Most basic construction material
- Concrete; mortar; asphalt; base material
- Per capita demand is 5.7 to 7.6 tons annually
- Average home uses 400 tons of aggregate
- Average school or hospital uses 15,000 tons
- Essential product

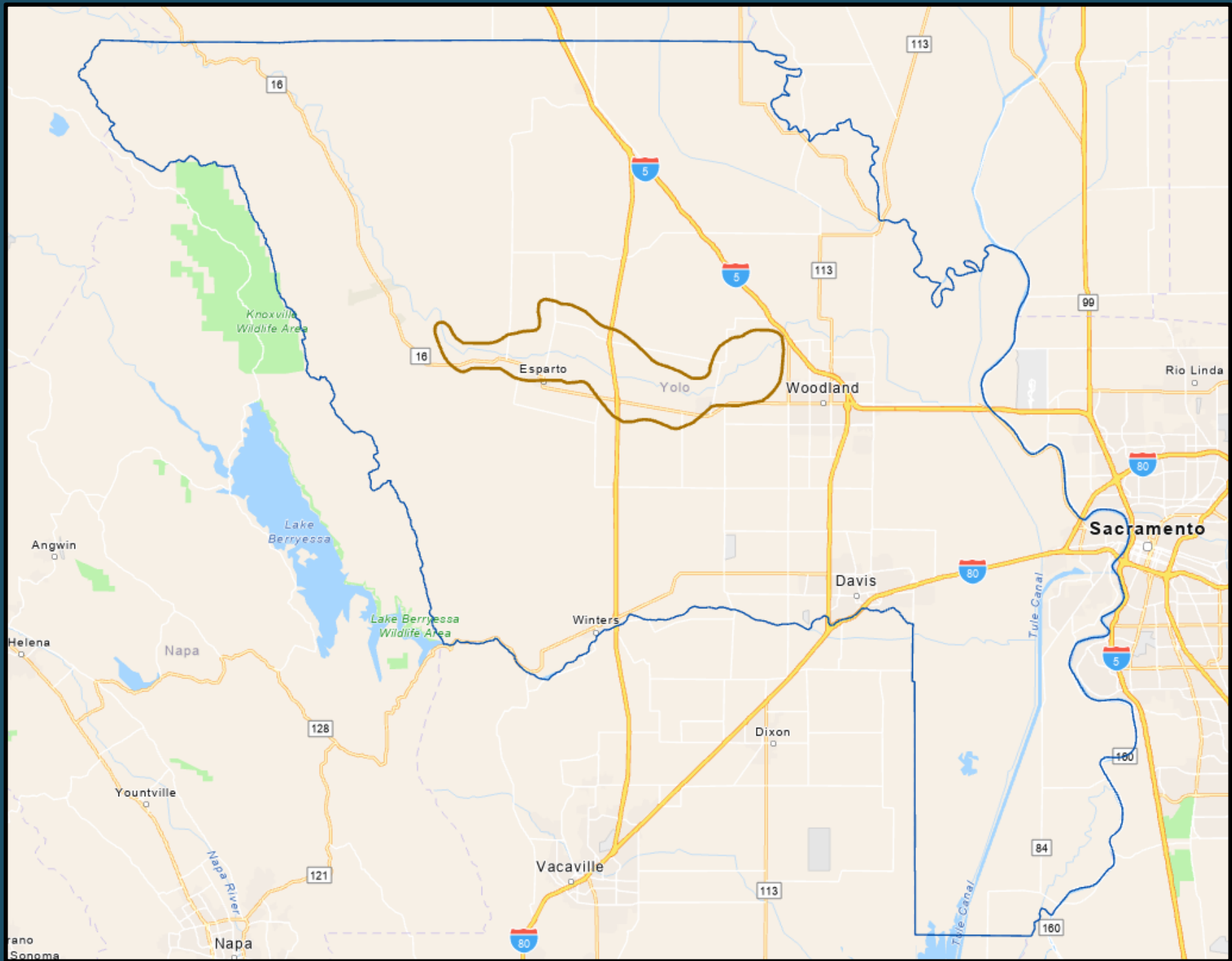
# CACHE CREEK AREA PLAN

- State Mandate (SMARA)
- 1995 Technical Studies
- CCAP = CCRMP, CCIP, OCMP, Ordinances
- 1996 Adopted and Public Vote
- Rigorous Regulatory Framework (plans, policies, regulations)
- Adaptive Management – Watershed Focus – Science Based
- 2017 Technical Studies
- 2018 Cache Creek Parkway Plan (Baseline Inventory)
- 2019 Comprehensive CCAP Update
- Balances Priorities/Establishes County Policy
- Best Practices



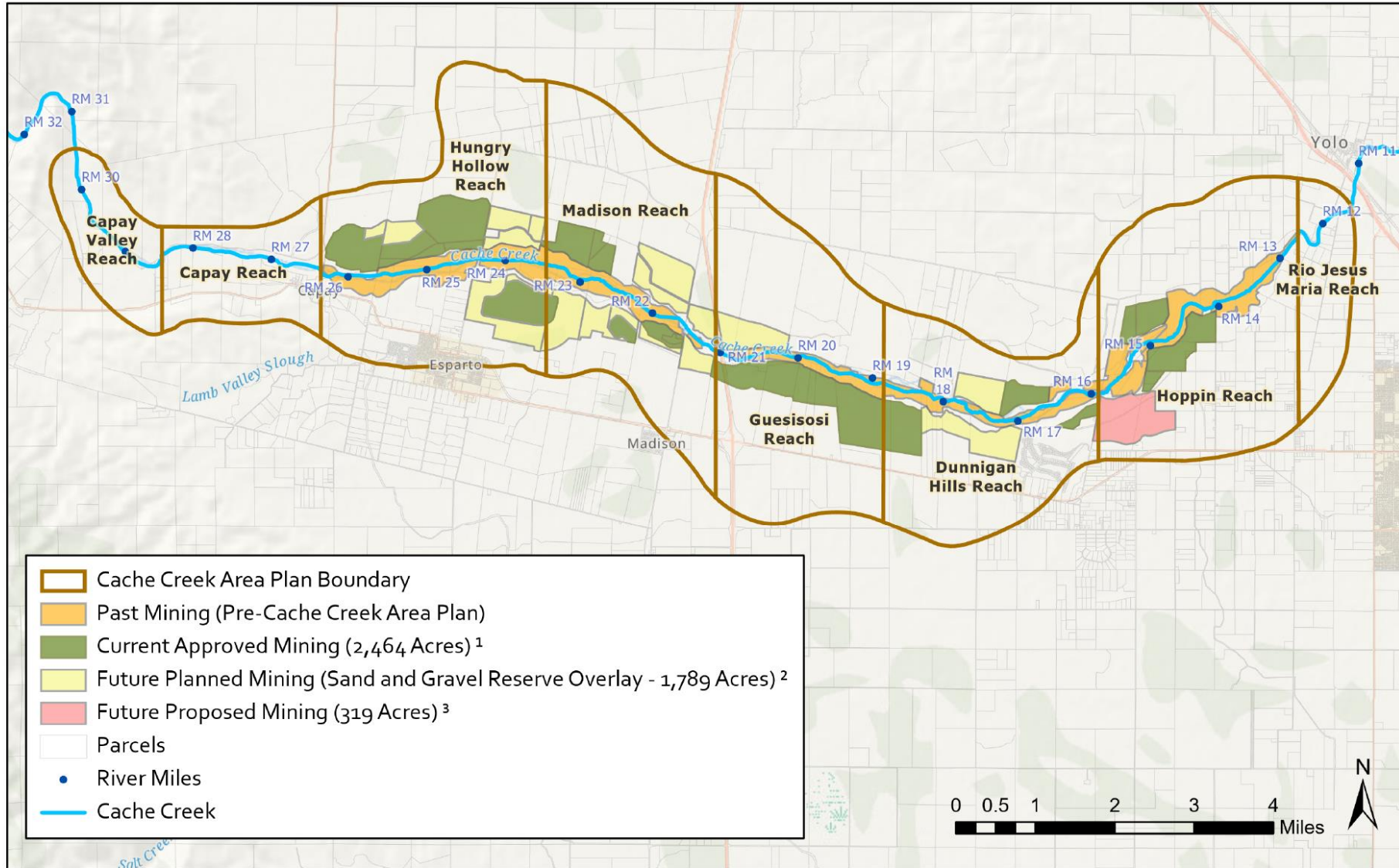
# PRIORITIES AND POLICIES

- Ensures local supply of aggregate and local benefit
- Identifies limited areas where mining is allowed
- Eliminated in-channel mining in favor of controlled off-channel mining
- Traded vested rights for conditional use permits
- Establishes reclamation priorities
- Requires agricultural preservation
- Results in creek restoration
- Creates public access, trails, and open space parkway
- Results in economic benefits



# Cache Creek Area Plan - Past, Current, and Future Mining

9/17/2020



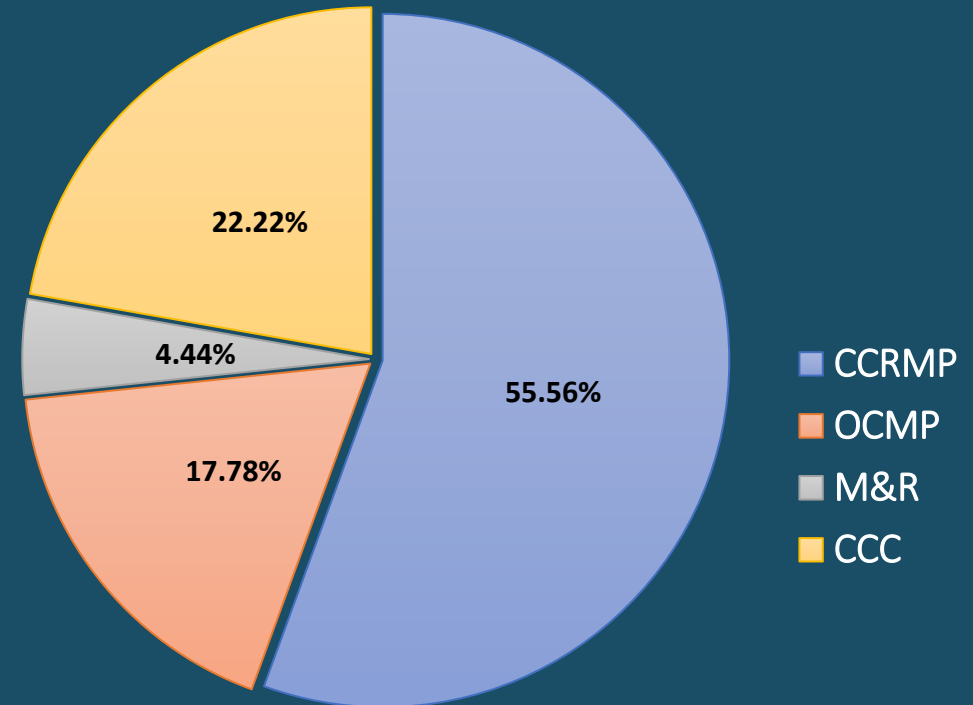
<sup>1</sup> Due to minor inaccuracies in the database and polygon boundaries, this total may be overstated by +/- 5 acres.

<sup>2</sup> Prior to adoption of the CCAP Update in December 2019, total SGRO zoned acreage was 1,001 acres. With adoption of the CCAP Update, the SGRO was added to an additional 788 acres, for a total of 1,789 acres.

<sup>3</sup> This reflects the actual proposed mining acreage in the Teichert Shifler application. An additional +/- 81 acres assumed for rezoning as a part of the CCAP Update represented portions of the Shifler property not ultimately included in the Teichert Shifler application.

# GRAVEL FEE PROGRAM

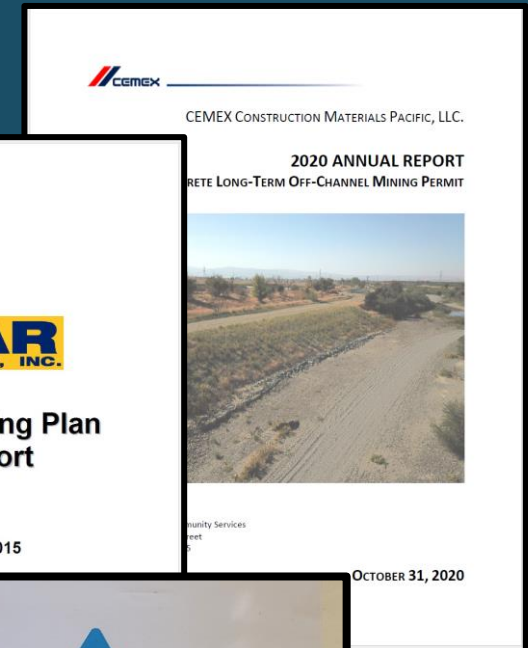
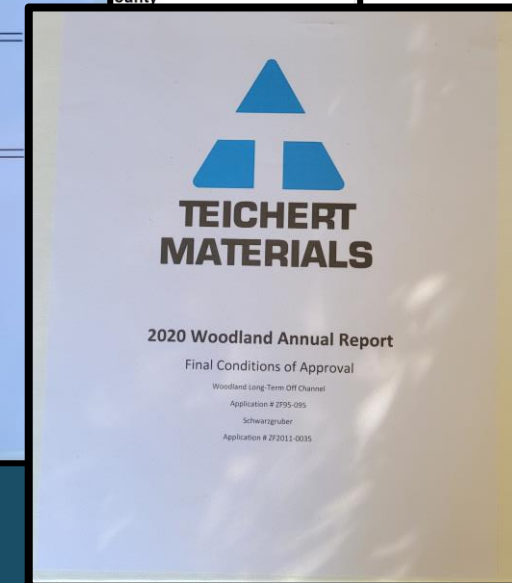
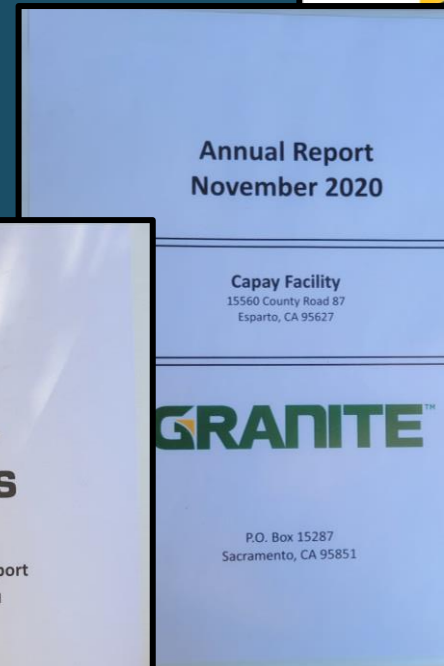
- Gravel Mining Fee Ordinance (Title 10, Chapter 11)
- Establishes fee schedule based on tonnage sold
- Current fee = \$0.643 per ton
- Funds: implementation, monitoring, inspections, administration, habitat restoration, mercury management, parkway operation
- Program and Parkway are 100% self-funded





# ANNUAL OPERATOR RESPONSIBILITIES

- Area and tonnage mined
- Water levels every quarter
- Water quality every six months
- Site conditions
- Haul route evaluation
- Verification of flood protection, setback from creek, on-site drainage



# ANNUAL COUNTY RESPONSIBILITIES

- Inspections of Mining Site and Operations
- Compliance Review of Mining/Reclamation Operations
- Compliance with CEQA Mitigation Measures
- Compliance with Development Agreements
- Compliance with SMARA
- In-Channel Water Quality Testing
- Mercury Conditions

# CACHE CREEK TAC RESPONSIBILITIES



- Aerial Survey
- Digital Terrain Model
- Creek Inspection
- Erosion Evaluation
- Biological and Habitat Survey
- Invasive Species Control
- Recommend Restoration and Channel Stability Projects

# PROGRAM ADAPTATION 10-YEAR MANDATORY REVIEW

- Review and update of entire program (CCAP)
- Review and update of each mining permit
- Review and update of gravel fees

## 2017 TECHNICAL STUDIES AND 20-YEAR RETROSPECTIVE FOR THE CACHE CREEK AREA PLAN



*Prepared for:*

Yolo County Administrator's Office  
625 Court Street  
Woodland, CA 95695

*Prepared by:*

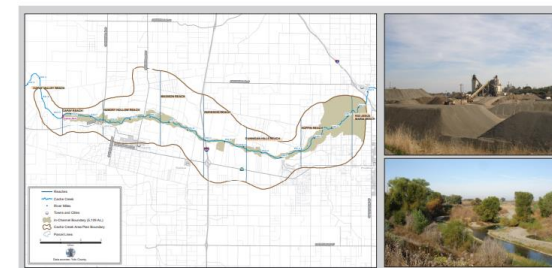
Mark Tompkins, P.E., Ph.D.  
Paul Frank, P.E., CED  
Andrew P. Rayburn, Ph.D.

*In Consultation With:*

Elisa Sabatini, Manager of Natural Resources, Project Director  
Heidi Tschudin, TSCHUDIN CONSULTING GROUP, Project Manager  
Casey Liebler, Natural Resources Program Assistant, Project Assistant

March 17, 2017

## YOLO COUNTY CACHE CREEK AREA PLAN UPDATE PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT

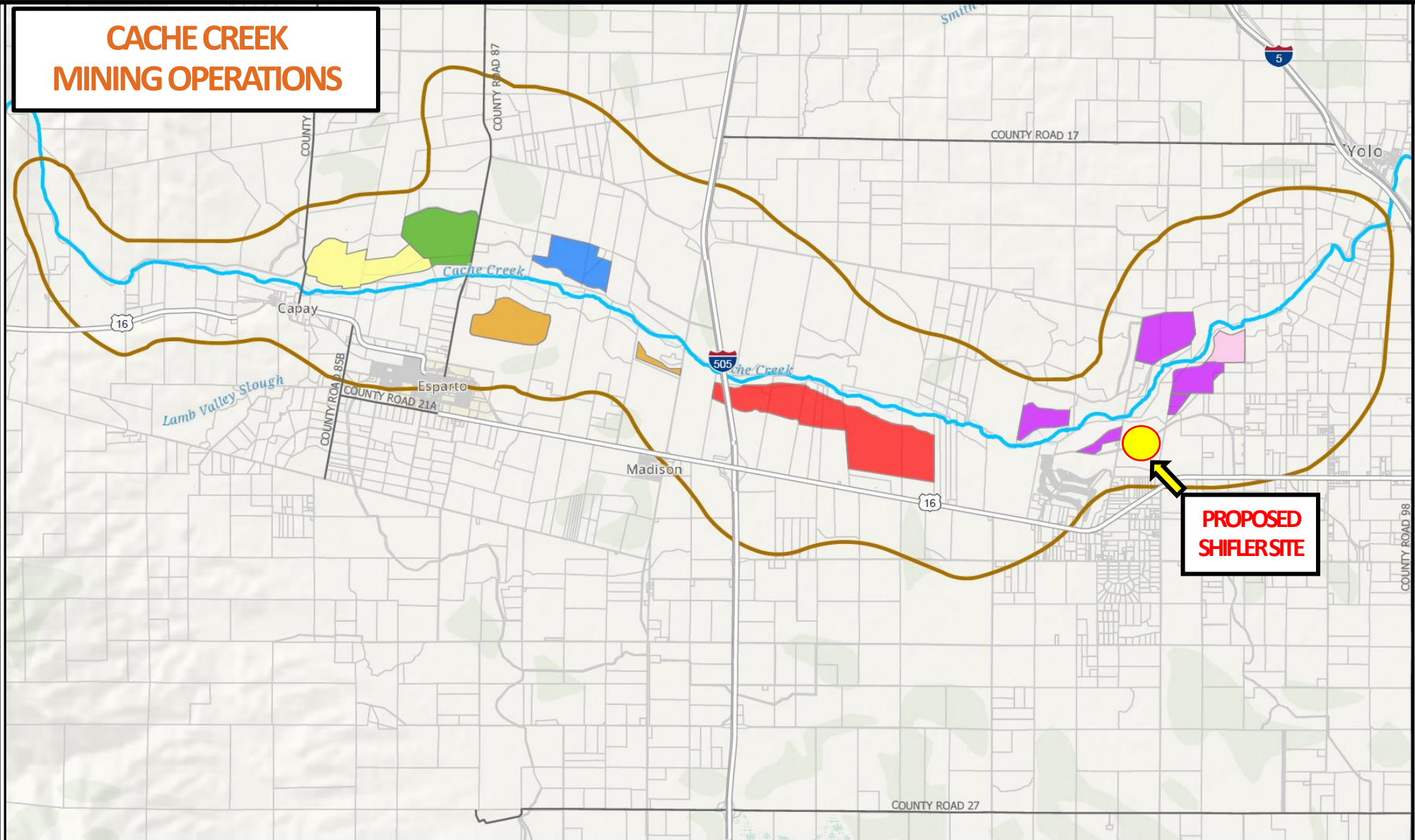


STATE CLEARINGHOUSE NO. 2017052069

**BASELINE**  
ENVIRONMENTAL CONSULTING

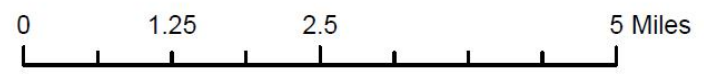
May 2019

# CACHE CREEK MINING OPERATIONS



## Legend

- |                                |                 |                        |
|--------------------------------|-----------------|------------------------|
| Highways                       | Parcels         | Syar                   |
| Roads                          | Cemex           | Teichert Esparto       |
| Cache Creek                    | Granite Capay   | Teichert Woodland      |
| Cache Creek Area Plan Boundary | Granite Esparto | Teichert Schwarzgruber |

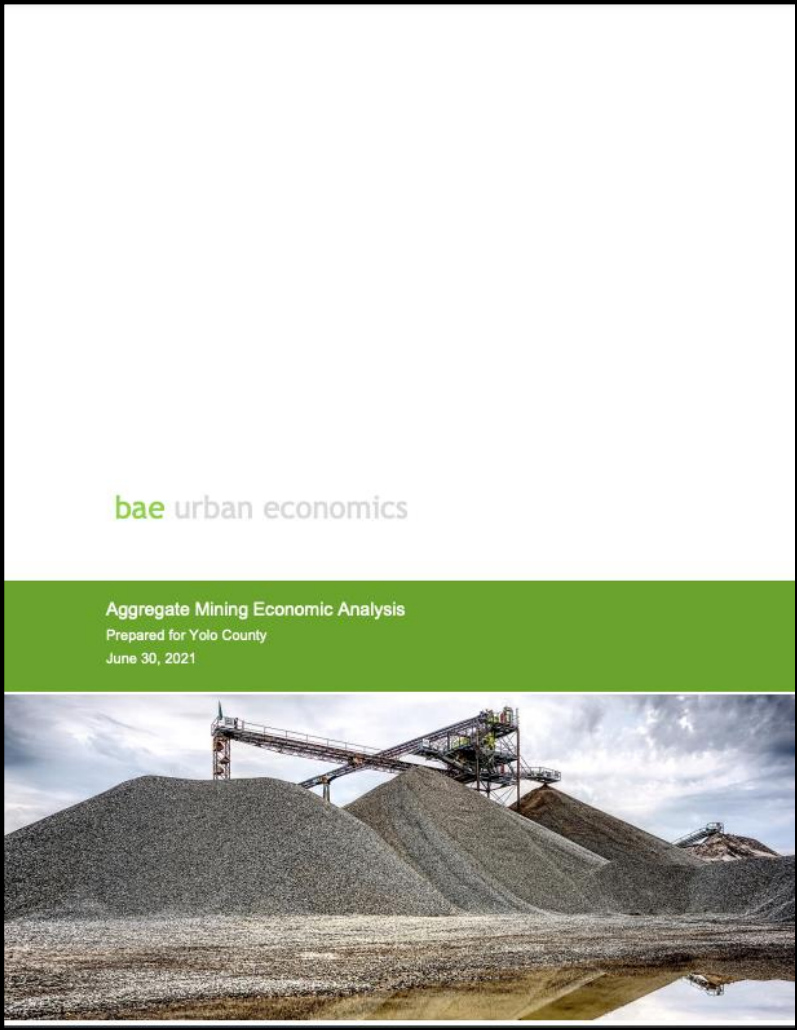


Printed: 10/11/2021

# APPROVED RECLAMATION

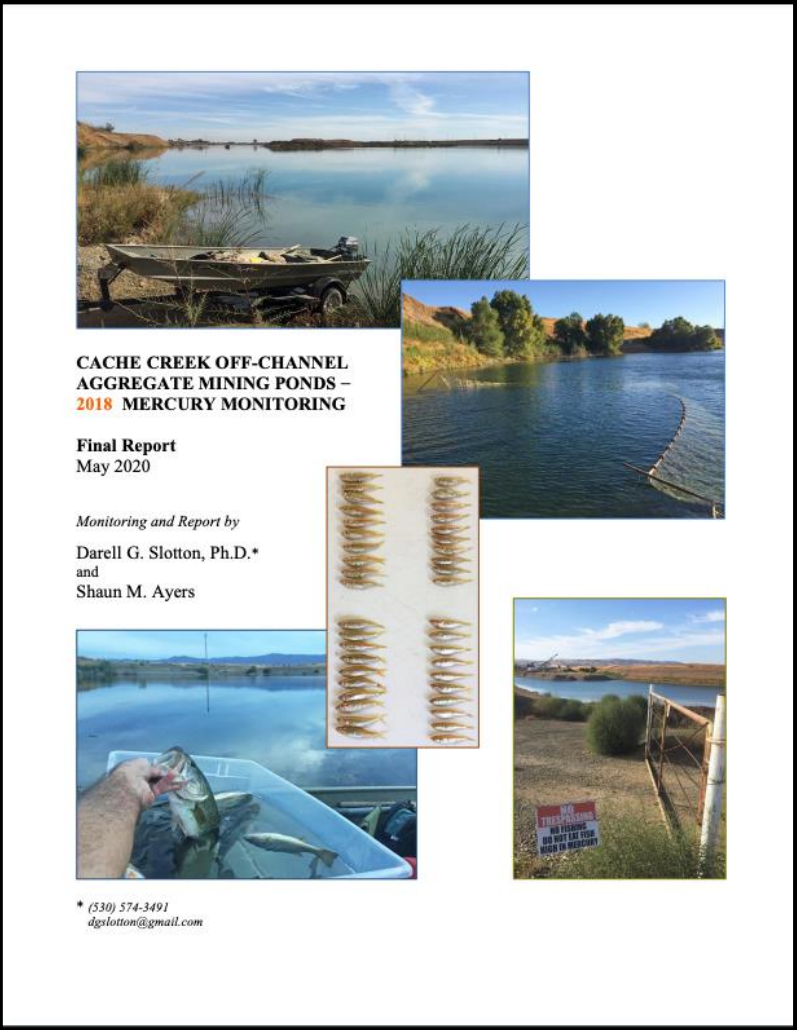
Operation	Total Acreage	Agriculture	Habitat	Recreation + Open Space	Other Uses
CEMEX	716 acres	476 acres	61 acres	153 acres	26 acres
Granite Capay	312 acres	121 acres	60 acres	127 acres	4 acres
Granite Esparto	313 acres	112 acres	44 acres	157 acres	0 acres
Syar	248 acres	46 acres	60 acres	142 acres	0 acres
Teichert Esparto	149 acres	0 acres	31 acres	98 acres	20 acres
Teichert Woodland	252 acres	115 acres	16 acres	93 acres	28 acres
Teichert Schwarzgruber	41 acres	0 acres	8 acres	32 acres	0 acres
<b>Totals</b>	<b>2,031 acres</b>	<b>870 acres</b>	<b>281 acres</b>	<b>802 acres</b>	<b>78 acres</b>
Teichert Shifler <b>(proposed)</b>	320 acres	120 acres	88 acres	91 acres	21 acres

# RECENT TECHNICAL REPORTS



bae urban economics

Aggregate Mining Economic Analysis  
Prepared for Yolo County  
June 30, 2021



**CACHE CREEK OFF-CHANNEL  
AGGREGATE MINING PONDS –  
2018 MERCURY MONITORING**

**Final Report**  
May 2020

*Monitoring and Report by*  
Darell G. Slotton, Ph.D.\*  
and  
Shaun M. Ayers

\* (530) 574-3491  
dslotton@gmail.com

HOUSE  
AGRICULTURAL  
CONSULTANTS

*Providing expertise in agricultural science,  
management, & appraisal since 1977*

Assessment of Reclamation of  
Mined Lands to Agriculture  
under the Yolo County CCAP

Gregory A. House & Henry House

House Agricultural Consultants  
1105 Kennedy Place, Suite 1  
Davis, California 95616  
+1 530 753 3361  
www.houseag.com

# CACHE CREEK PARKWAY PLAN

- 15-mile Parkway
- 2,000 acres of open space and habitat
- Future public access
- 500 acres dedicated since 1999
- 400 acres within next 5 years
- Over 1,100 acres still to come





# CACHE CREEK PARKWAY PROPERTIES



CAPAY OPEN SPACE PARK



WILD WINGS OPEN SPACE PARK

# CACHE CREEK PARKWAY PROPERTIES



CACHE CREEK NATURE PRESERVE



GRANITE WOODLAND REIFF

# CACHE CREEK PARKWAY PROPERTIES



RODGERS

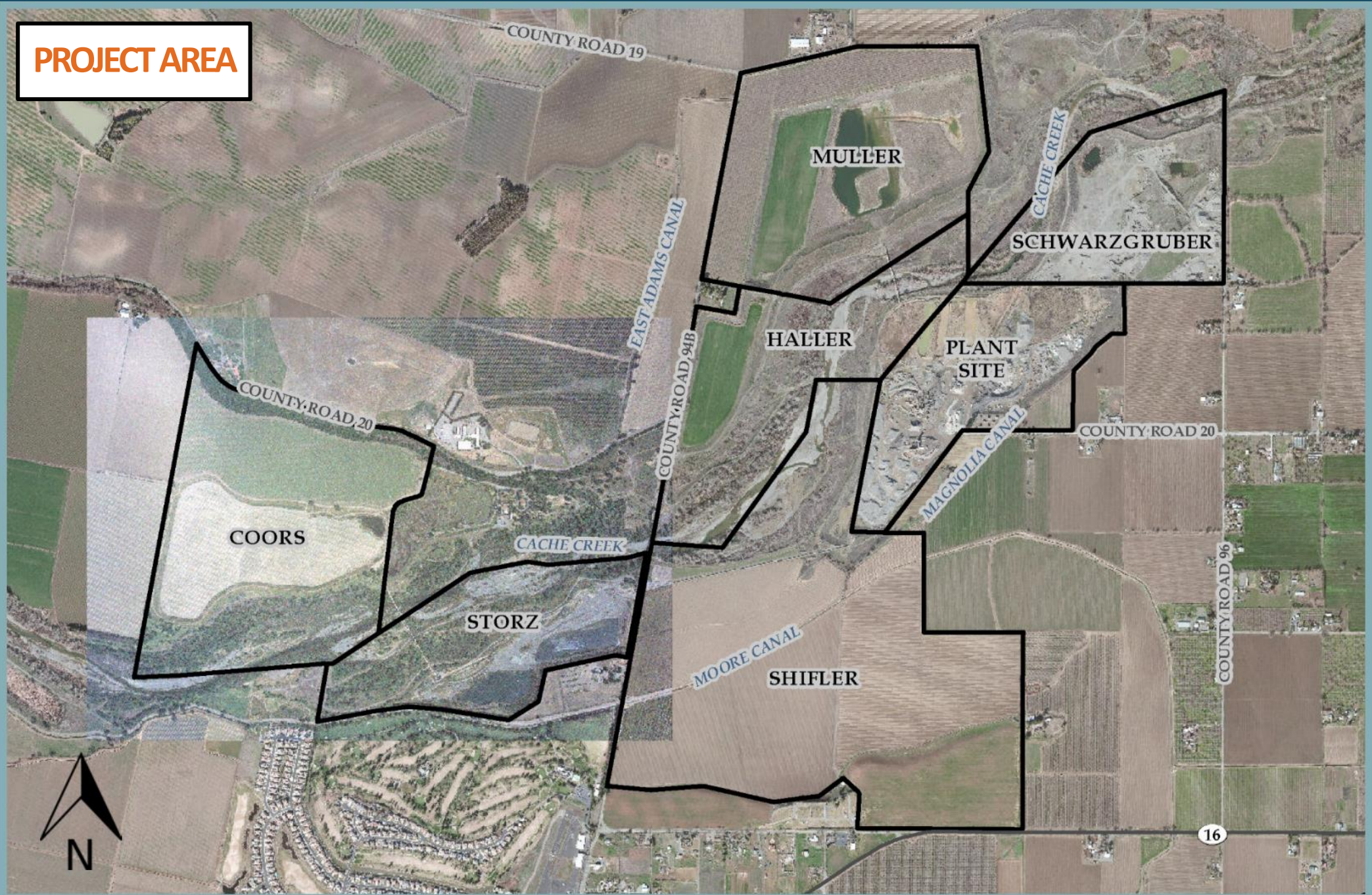


CORRELL

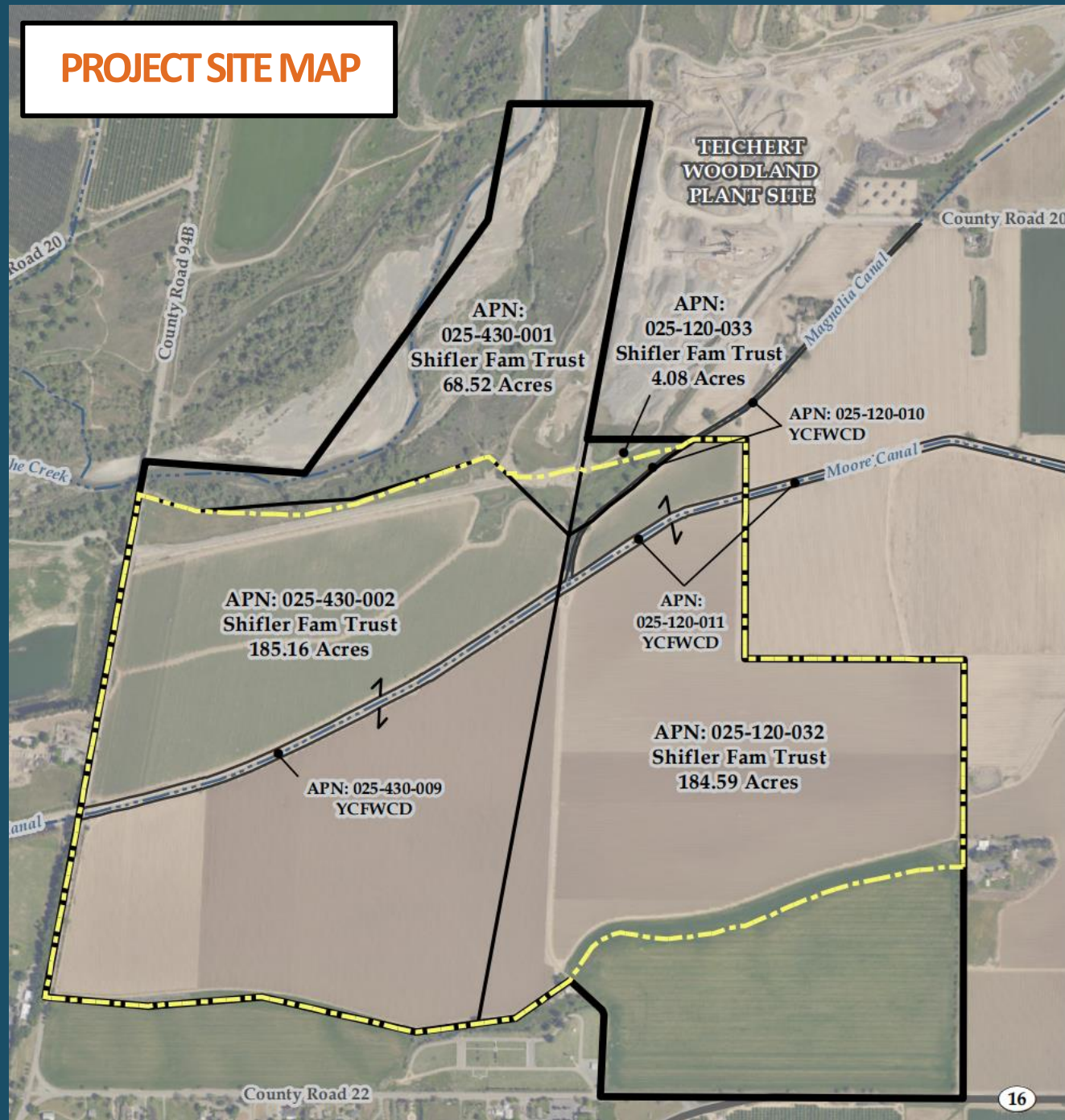
# TEICHERT SHIFLER PROJECT

Component	Recommended
Mining Area	264 acres
Reclamation Area	319 acres
Reclamation Uses	Agriculture, Lake, Habitat
Total Tonnage	35.4 mil tons mined
Maximum Annual Tonnage	2.12 mil tons mined/year
Permit Term	30 years
Mining Depths	40 to 110 feet
20% Market Exceedance?	No
Creek Buffer	250 feet minimum
Canal Relocation?	No
Haul Route and Hours of Operation	No change from existing

**PROJECT AREA**

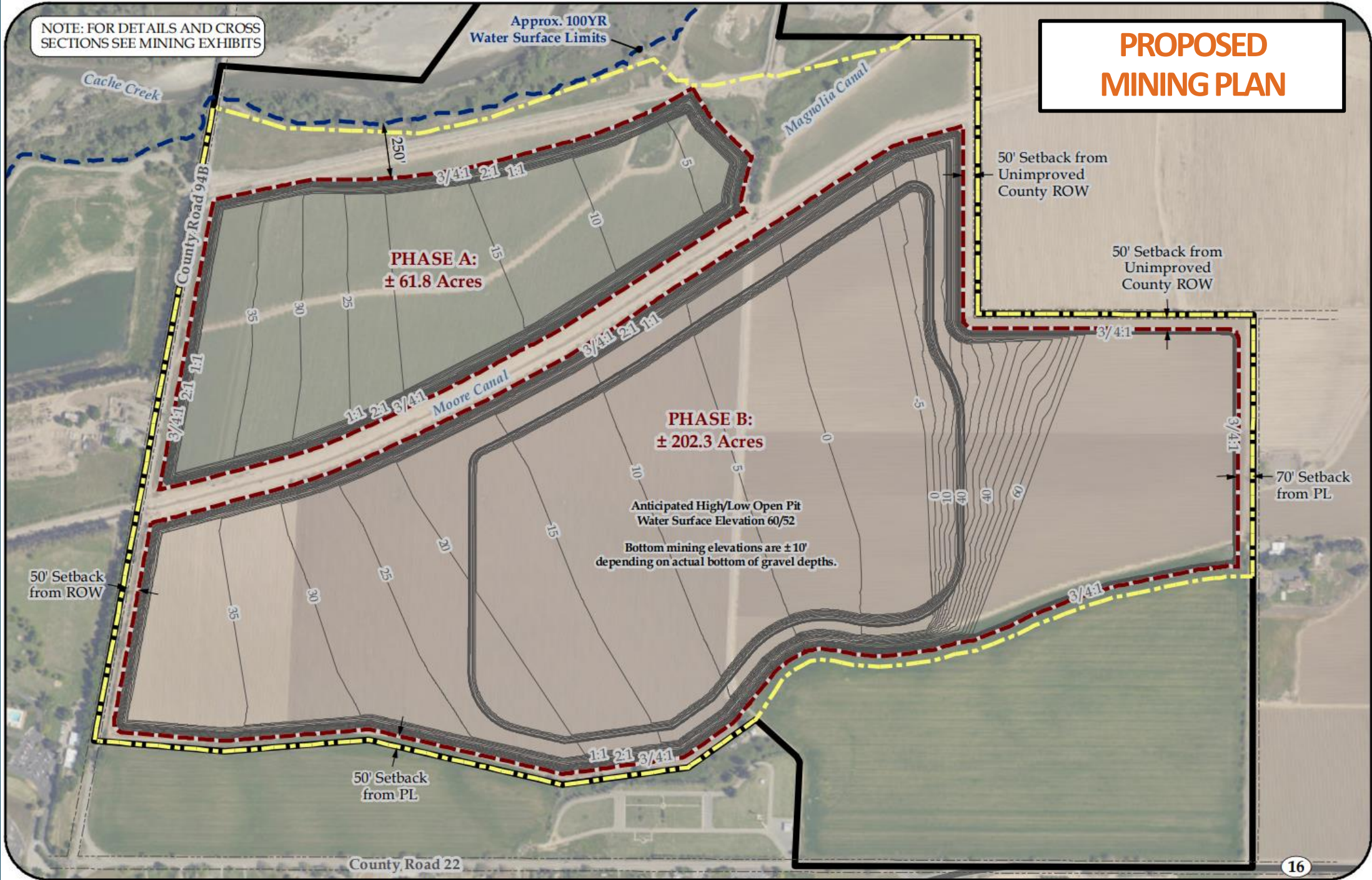


# PROJECT SITE MAP

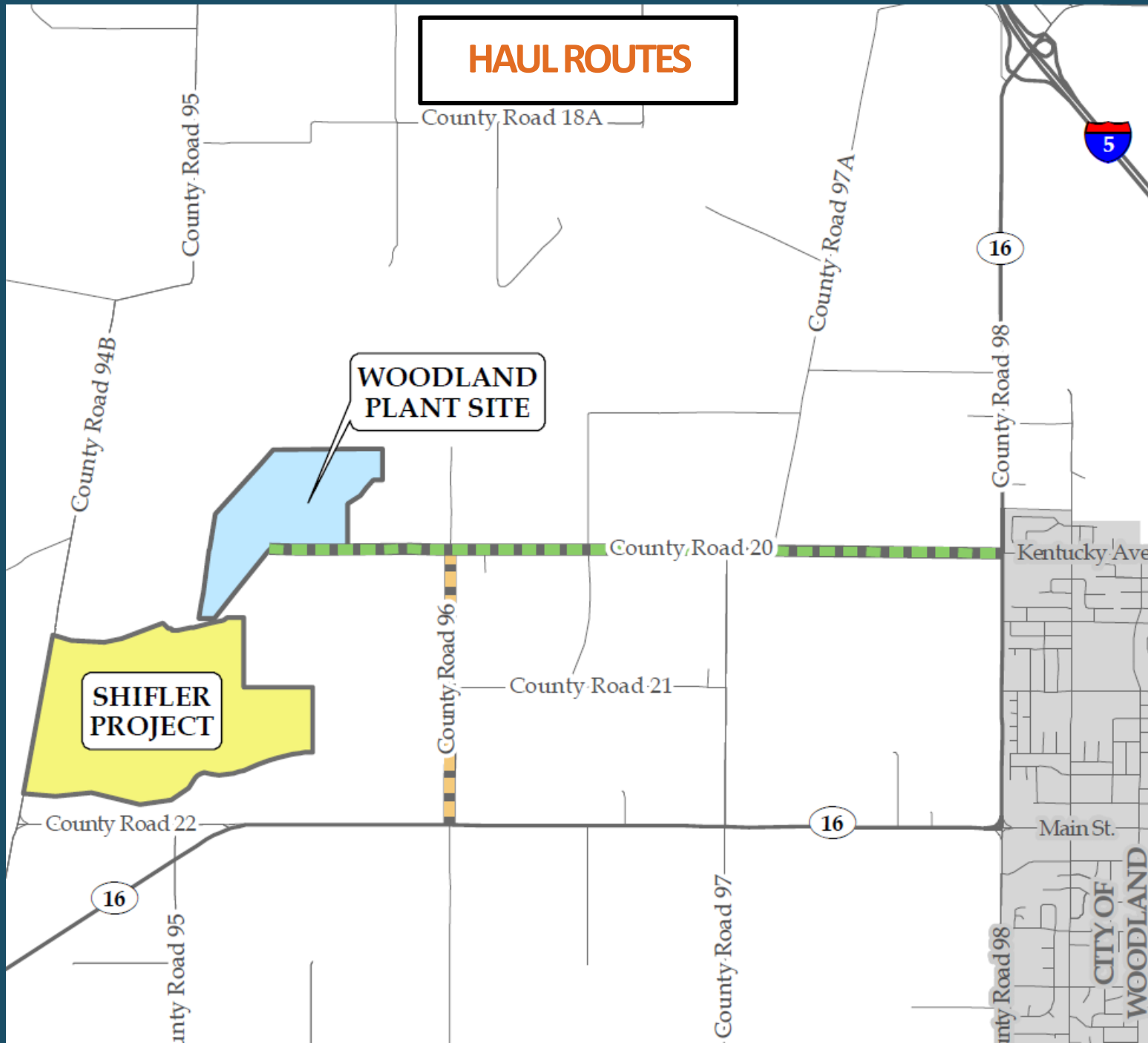


NOTE: FOR DETAILS AND CROSS SECTIONS SEE MINING EXHIBITS

# PROPOSED MINING PLAN



# HAUL ROUTES





# HAUL ROUTE AND OPERATING HOURS

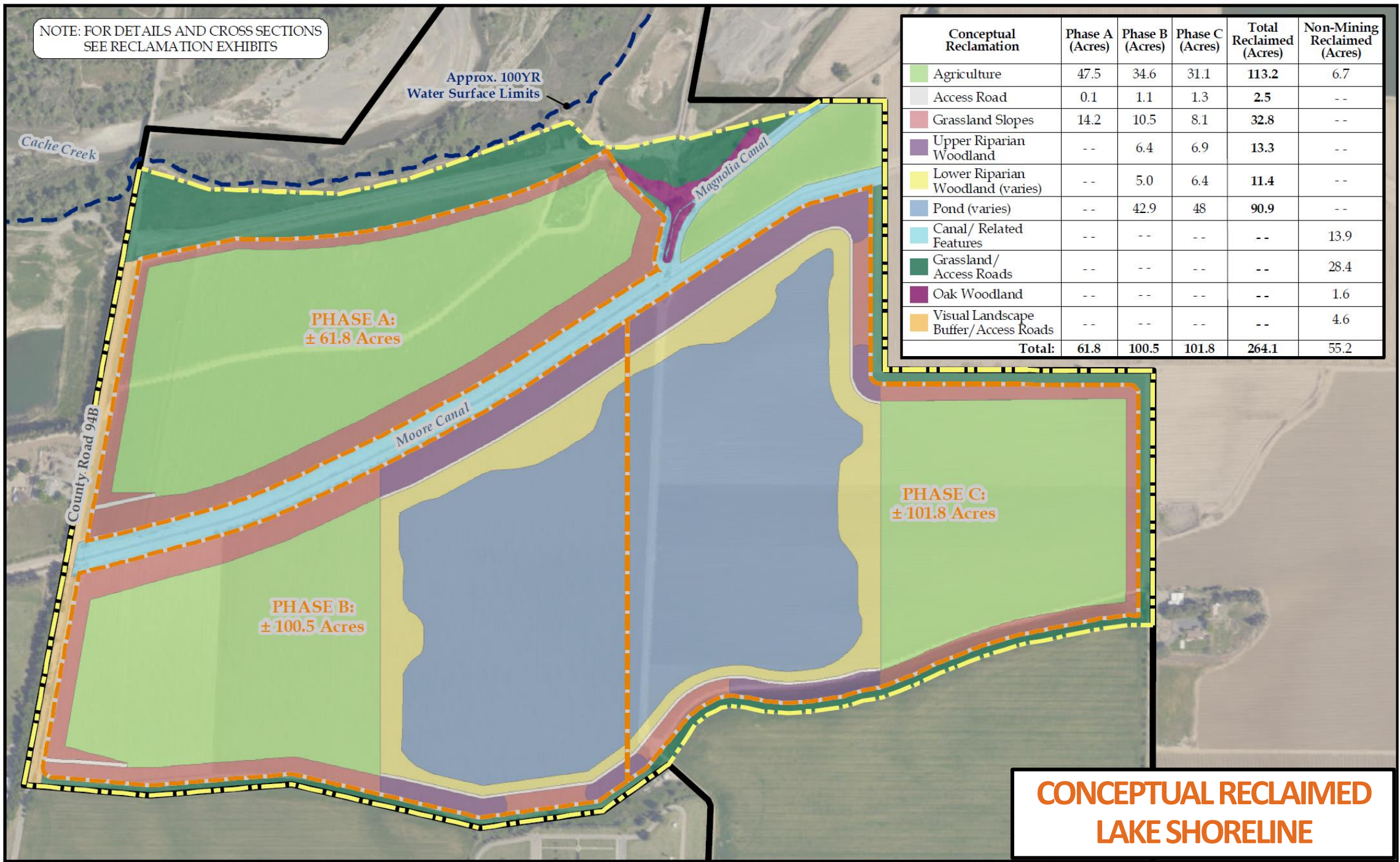
## Haul Route (since 1996)

- East on CR 20 to CR 98/SR 16 north to I-5  
and/or
- South on CR 96 to SR 16 west to I-505

## Operating Hours (since 1996)

- 6 a.m. – 6 p.m. Mon-Sat (mining)
- 6 a.m. – 6 p.m. Mon-Fri (plant)
- August to October
  - 6 a.m. – 10 p.m. Mon-Fri
  - 6 a.m. – 6 p.m. Sat/Sun
- 24-hours (as needed to meet contracts)

NOTE: FOR DETAILS AND CROSS SECTIONS  
SEE RECLAMATION EXHIBITS



Conceptual Reclamation	Phase A (Acres)	Phase B (Acres)	Phase C (Acres)	Total Reclaimed (Acres)	Non-Mining Reclaimed (Acres)
Agriculture	47.5	34.6	31.1	113.2	6.7
Access Road	0.1	1.1	1.3	2.5	--
Grassland Slopes	14.2	10.5	8.1	32.8	--
Upper Riparian Woodland	--	6.4	6.9	13.3	--
Lower Riparian Woodland (varies)	--	5.0	6.4	11.4	--
Pond (varies)	--	42.9	48	90.9	--
Canal/ Related Features	--	--	--	--	13.9
Grassland/ Access Roads	--	--	--	--	28.4
Oak Woodland	--	--	--	--	1.6
Visual Landscape Buffer/ Access Roads	--	--	--	--	4.6
<b>Total:</b>	<b>61.8</b>	<b>100.5</b>	<b>101.8</b>	<b>264.1</b>	<b>55.2</b>

**CONCEPTUAL RECLAIMED  
LAKE SHORELINE**



**SHIFLER LAKE  
EAST BANK RENDERING**

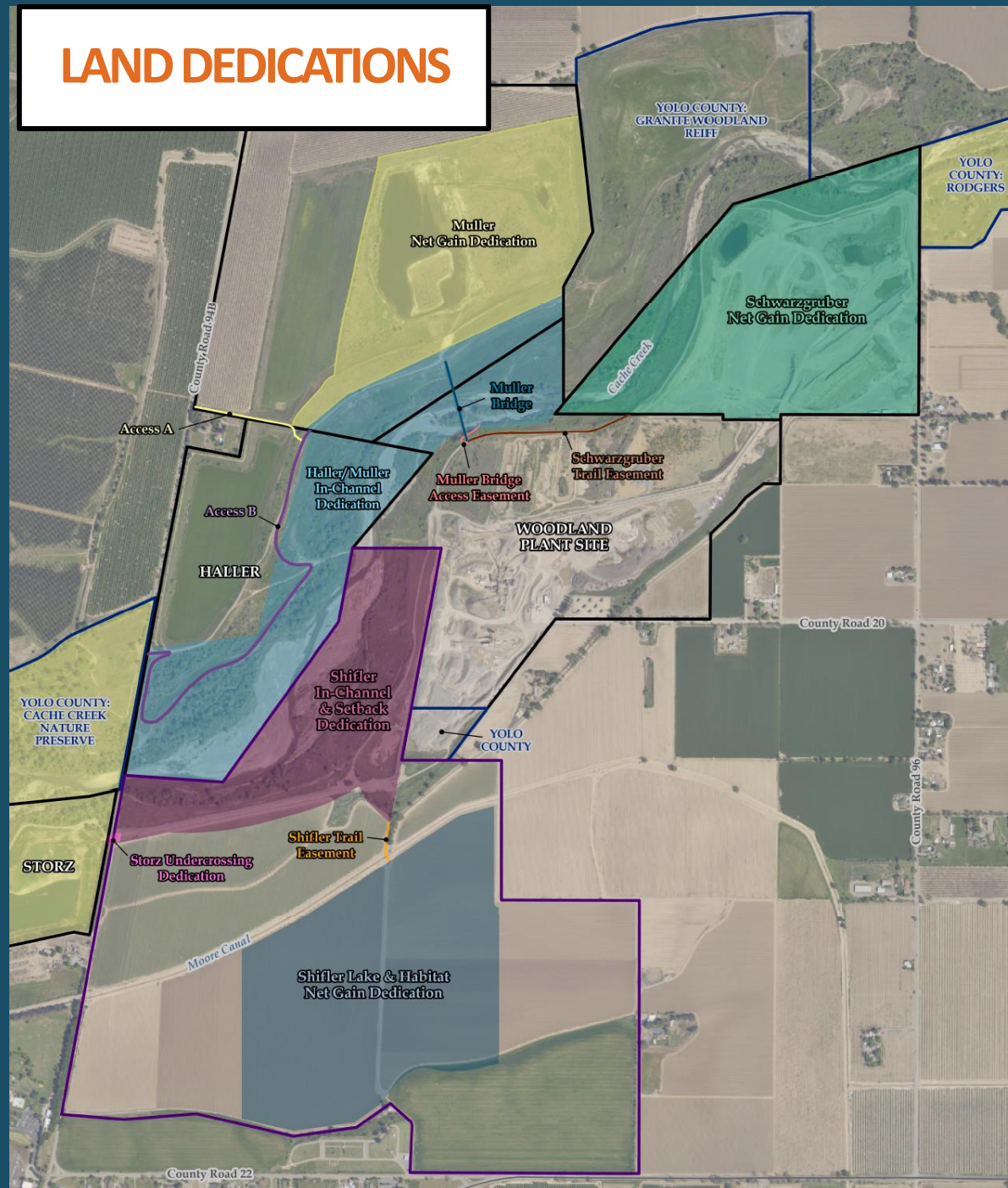


**SHIFLER LAKE  
NORTH BANK RENDERING**

# DEVELOPMENT AGREEMENT PUBLIC BENEFIT ITEMS (“NET GAINS”)

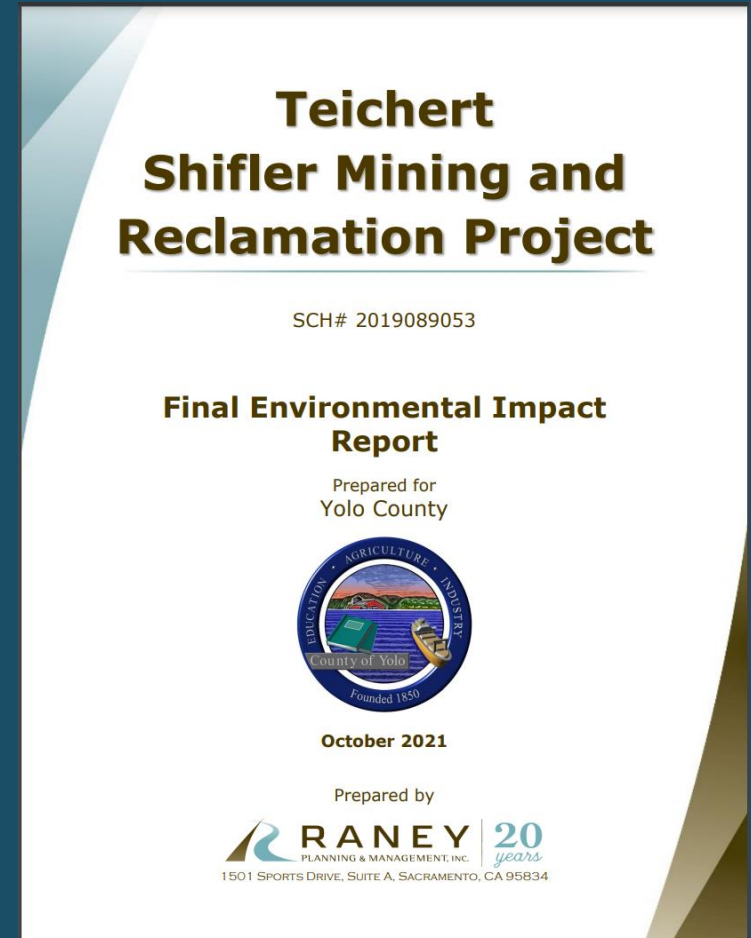
- In-Channel Maintenance – Bar Skimming (CR 87 to I-505; approx. 3 miles)
- Property Dedications
  - Shifler Lake
  - Shifler In-Channel
  - Schwarzgruber
- Cash Donations to Nature Preserve and Parkway Plan
- Safe Pedestrian Crossing of CR 94B for Trail Connection
- Woodland Plant as Sales Tax Place of Sale
- Early Dedication of Teichert In-Channel Haller/Muller
- Enhanced Reclamation of County Borrow Site Property
- Future Trail from Muller Bridge to Schwarzgruber Property
- Removal of Restrictions on Muller Access “B”

# LAND DEDICATIONS



# ENVIRONMENTAL IMPACT REPORT

- Draft EIR Released – December 11, 2020
- Final EIR Released – October 15, 2021
- 6 Project Alternatives
- 4 Unavoidable Impacts
- 5 Master Responses
  - Merits of the Project
  - Property Values
  - Transportation and Circulation
  - Hydrology and Water Quality
  - Agricultural Concerns

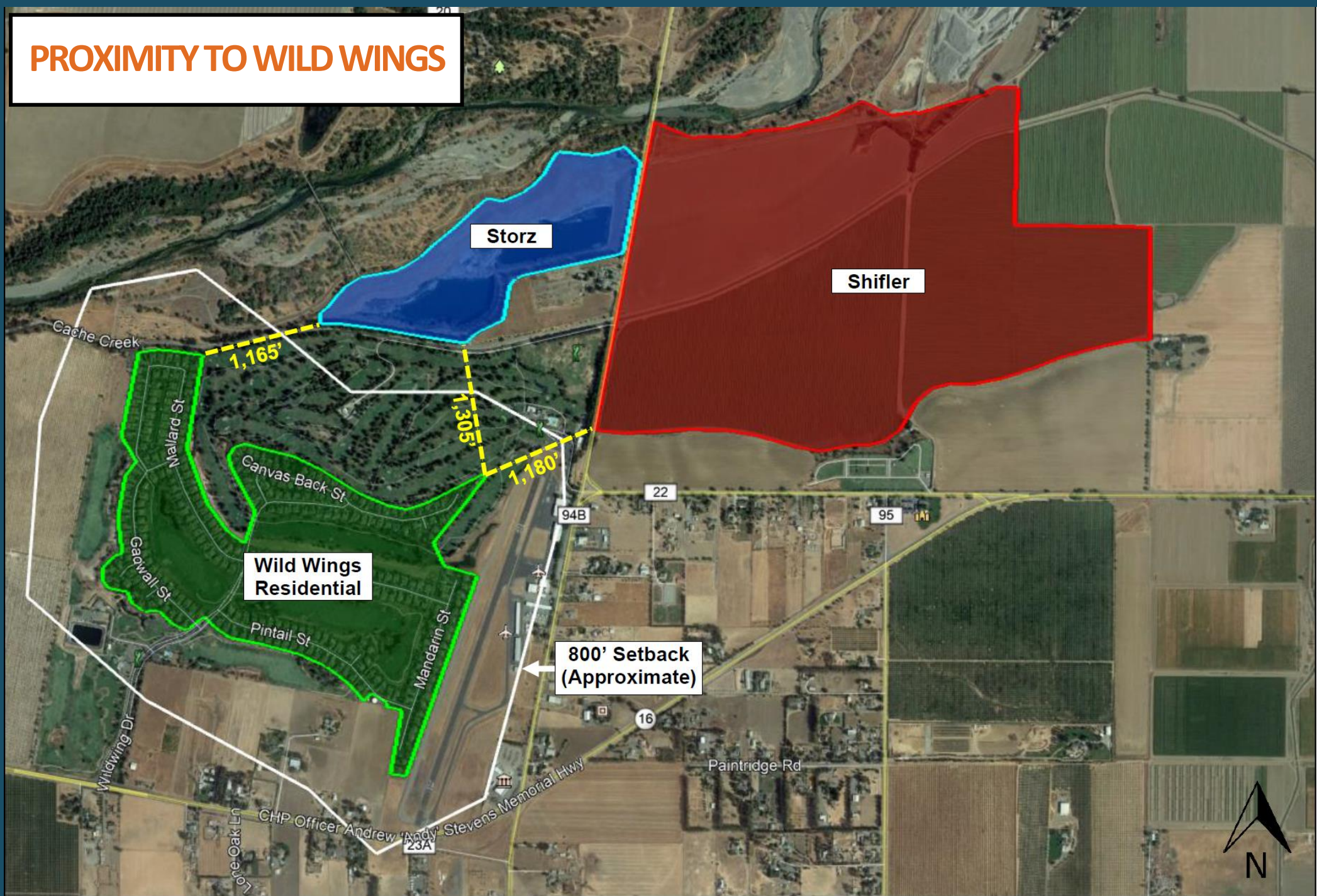


# KEY ISSUES RAISED IN COMMENTS

- Wild Wings
  - Proximity
  - Property Values
  - Disclosures
- Agricultural Resources
- Sustainability and Climate Change
- Mercury
- Water Quality and Quantity
- Tribal Cultural Resources
- Liability and Accountability



# PROXIMITY TO WILD WINGS



# TRAFFIC AND CIRCULATION

- Truck trips
- Haul route maintenance and improvements
- Widen CR 96 from CR 20 to SR 16
- Fair share for signal at SR 16 and Wild Wings

# AGRICULTURAL RESOURCES

- General Plan and CCAP constrain mining acreage
- Analyzed in CCAP Update EIR
- Project will impact 258 acres of farmland
- Reclamation of a minimum of 113 acres to agriculture
- Permanent protection of a minimum of 145 acres of farmland
- Dedication of 212 acres of additional Parkway land as “equivalent” net gains

# SUSTAINABILITY AND CLIMATE CHANGE

- Consistent with General Plan
- Consistent with Climate Action Plan
- Consistent with CEQA (Section 15183.5(b))
- Consistent with CCAP Update Final EIR
- Local Source of Gravel
- Incentives for Recycling
- Reductions in Numbers of Aggregate Plants
- Electric Conveyor System
- Woodland Plant Upgrades
- Woodland Plant Recycling Program
- Proximity to Market
- Vehicle Fleet Conversion
- Project-Level GHG Reduction Plan (MM 4.3-7)
- Electric Vehicle Charging Plan (MM 4.3-8)
- Applicant Green Energy Portfolio Practices and Commitments (Appendix I, Final EIR)
- 100% Renewable Energy (VCE) at Woodland Plant and Facilities by 2026

# WATER QUALITY AND QUANTITY

- Required Monitoring and Reporting
  - Water Levels 4x per year
  - Water Quality 2x per year
- Over 40 years of Site-Specific Monitoring and Reporting
- Six Technical Reports Prepared for Project
- No evidence of Significant Impact to Water Levels or Quality

# WATER USE COMPARISON

Site	Total Acres	Acre Feet/Year	AF/Year/Acre
Teichert Esparto - <b>Current</b>	148 acres	470 AF	3.17 AF
Teichert Schwarzgruber - <b>Current</b>	133 acres	723 AF	5.4 AF
Shifler - <b>Current</b> (Agricultural Water Use)	319 acres (265 farmed acres)	530-795 AF	2.0-3.0 AF
<b>Total current groundwater use: 10.57 to 11.57 AF/acre</b>			
Shifler – <b>Proposed</b> (Mining Use)	319 acres (262 mined acres)	1,910 AF	6.0 AF

# TRIBAL CULTURAL RESOURCES

- CEQA Coordination
- Cultural Resources Assessment and Peer Review
- Tribal Cultural Resources Consideration and Field Testing
- Tribal Consultation
- Tribal Monitoring Agreement
- Operator Awareness Training

# LIABILITY AND ACCOUNTABILITY

- Permit and regulatory compliance required and verified during operation and reclamation
- Applicant responsibility longer for some issues (e.g., mercury monitoring)
- Liability for contamination, negligence, or illegal behavior may be longer
- County indemnified through Development Agreements
- Due diligence period for all dedications
- Annual financial guarantees required for reclamation



# MERCURY

- Known existing condition
- Mercury concerns are statewide and watershed-wide
- CCAP ended commercial mining in-channel
- CCAP protects humans and wildlife
- CCAP allows for new habitat and open space
- CCAP monitoring requirements (County Code Section 10-5.517)
- Mercury concerns pre-exist aggregate mining
- Under CCAP aggregate mining does not cause significant impacts related to mercury
- Maintenance and Remediation Fee

# CCAP MERCURY MONITORING

- Monitoring Protocols
- Ambient Threshold
- Monitoring By Phase
- Required Reporting
- Required Responses
- Expanded Analysis
- Lake Management
- Fix It or Fill It

# MONITORING RESULTS

## Fish Monitoring

Pit	2015	2016	2017	2018	2019	2020	2021
Cemex – Phase 1	≤	≤	≤	≤	≤	LAB	LAB
Cemex – Phase 3-4	>	>	>	>	>	LAB	LAB
Syar – B1	>	>	>	>	>	LAB	LAB
Syar – West			INC	≤	INC	LAB	LAB
Teichert – Esparto Mast			INC	>	>	LAB	LAB
Teichert – Esparto Reiff	INC	>	>	>	>		
Teichert – Woodland Storz		INC	INC	≤	≤	LAB	LAB

## Water Column Profiling

Pit	2015	2016	2017	2018	2019	2020	2021
Cemex – Phase 1 (Control)				✓	✓	✓	✓
Cemex – Phase 3-4				✓	✓	✓	✓
Syar – B1				✓	✓	✓	✓
Syar – West (Control)				✓	✓	✓	✓
Teichert – Esparto Mast							
Teichert – Esparto Reiff				✓	✓	✓	✓
Teichert – Woodland Storz							

## Bottom Sediment Collection (one-time)

Pit	2015	2016	2017	2018	2019	2020	2021
Cemex – Phase 1 (Control)				✓			
Cemex – Phase 3-4				✓			
Syar – B1				✓			
Syar – West (Control)				✓			
Teichert – Esparto Mast							
Teichert – Esparto Reiff				✓			
Teichert – Woodland Storz							

## Report Status

Sampling	2015	2016	2017	2018	2019	2020	2021
Fish Monitoring	FINAL	FINAL	FINAL	FINAL	DRAFT	LAB	LAB
Water Column Profiling				FINAL	DRAFT	PNDG	PNDG
Bottom Sediments (1x)				FINAL			

Green = At or below ambient

Red = Above ambient

INC = Inconclusive

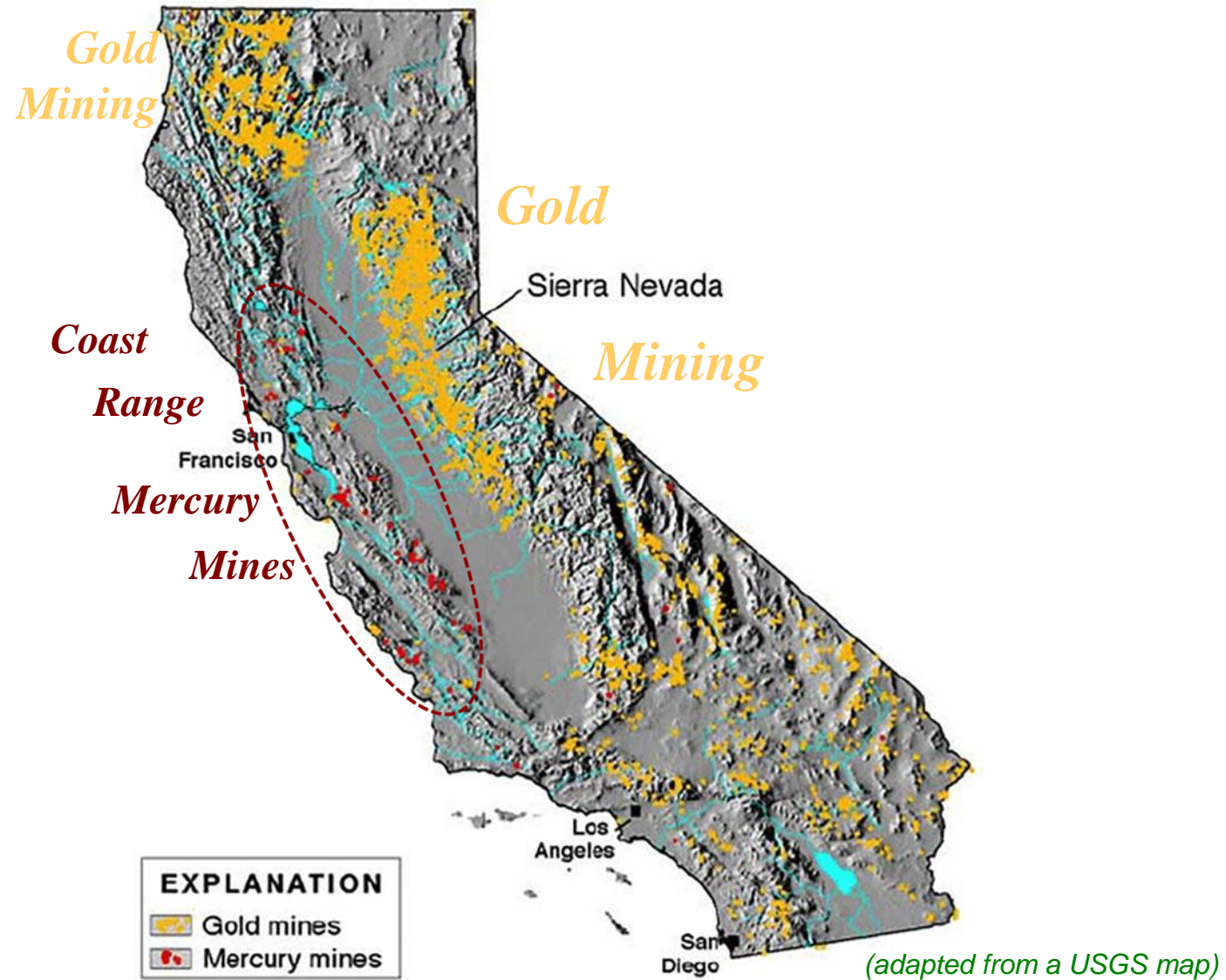
LAB = Laboratory work underway

PNDG = Report pending

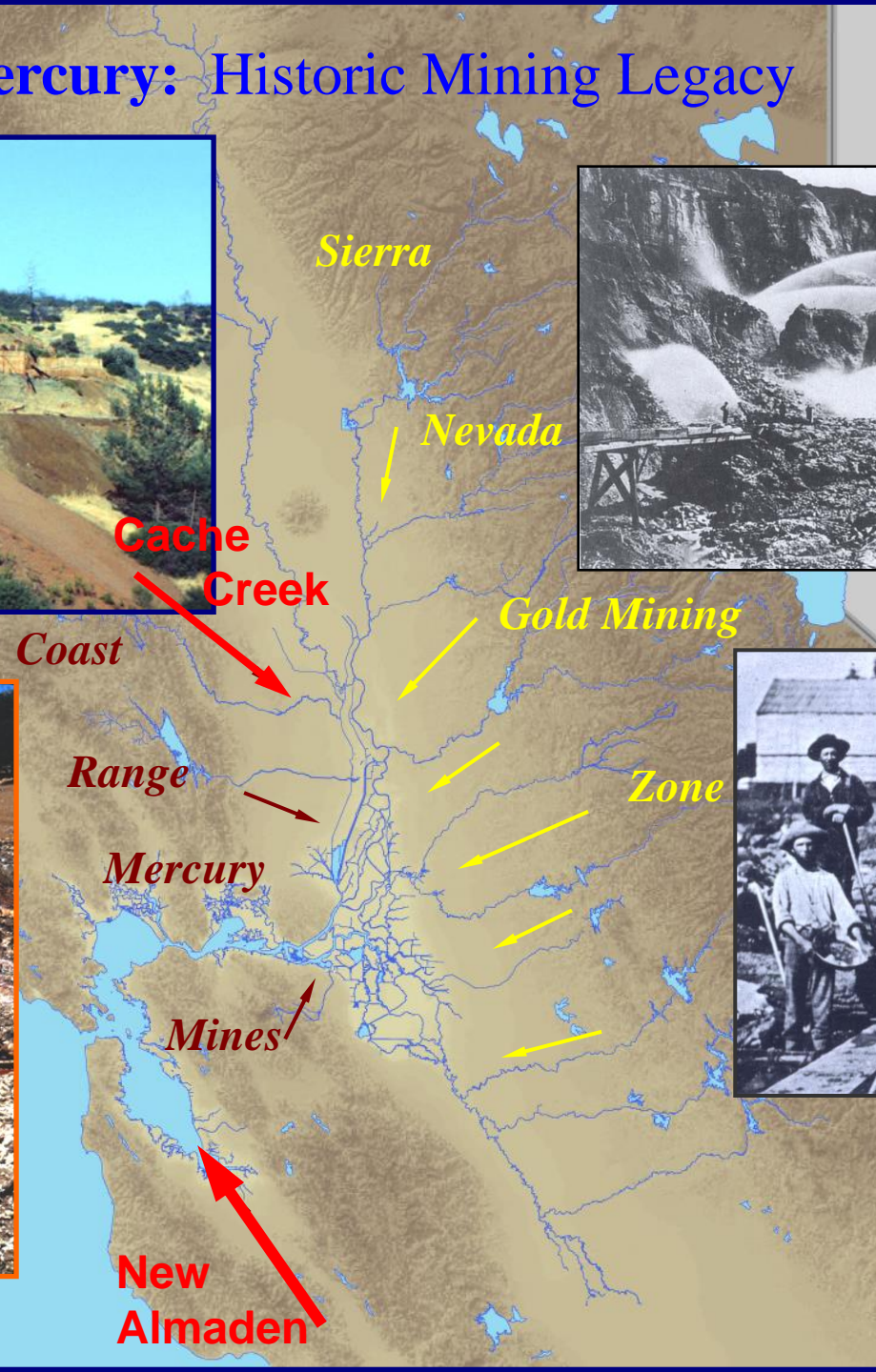
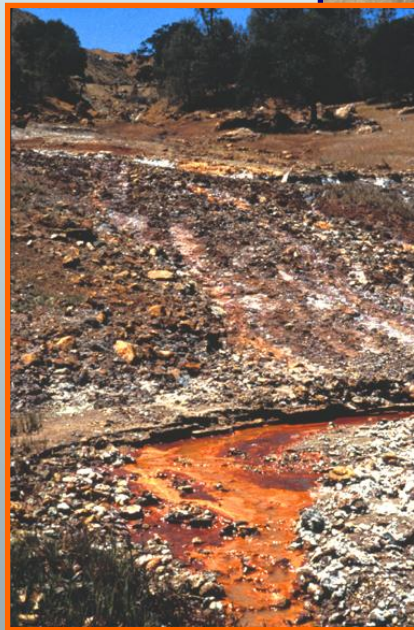
# MERCURY EXPERT PRESENTATION

- Dr. Darell Slotton
- Expert in applied aquatic ecology specializing in mercury bioaccumulation research
- Over 35 years studying mercury bioaccumulation
- Many different studies in the Cache Creek watershed since 1985
- Started and led a mercury analytical laboratory and applied research team at University of California-Davis since 1987
- Developed important new monitoring and analytical techniques in mercury analysis
- Over 70 published scientific reports
- Conducted mercury assessment projects throughout California and internationally
- Consulting expert on CCAP since 1995

# Mercury in California: Historic Mining Legacy



# California Mercury: Historic Mining Legacy

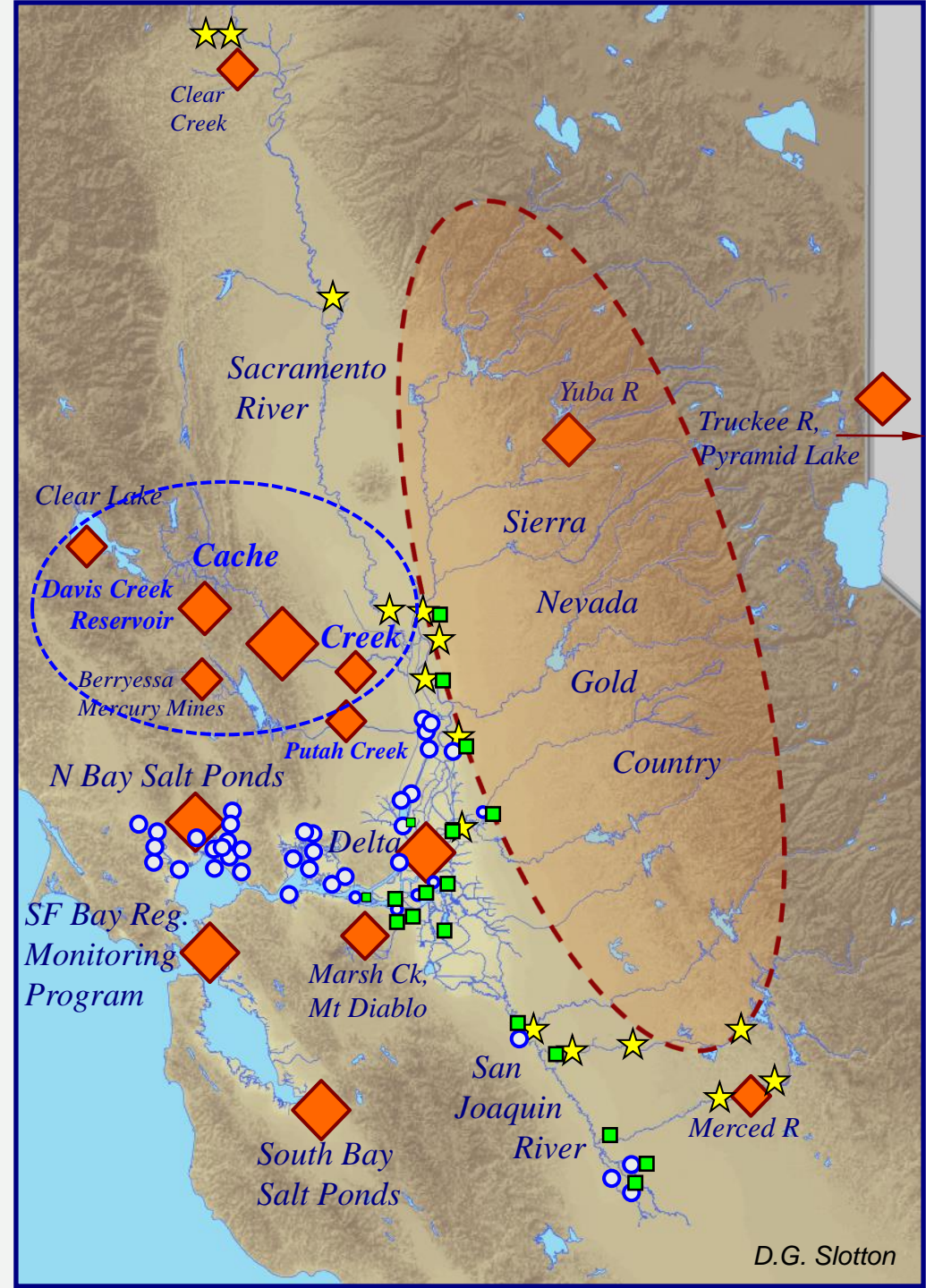


An estimated 9 MILLION pounds of mercury were lost into Sierra rivers

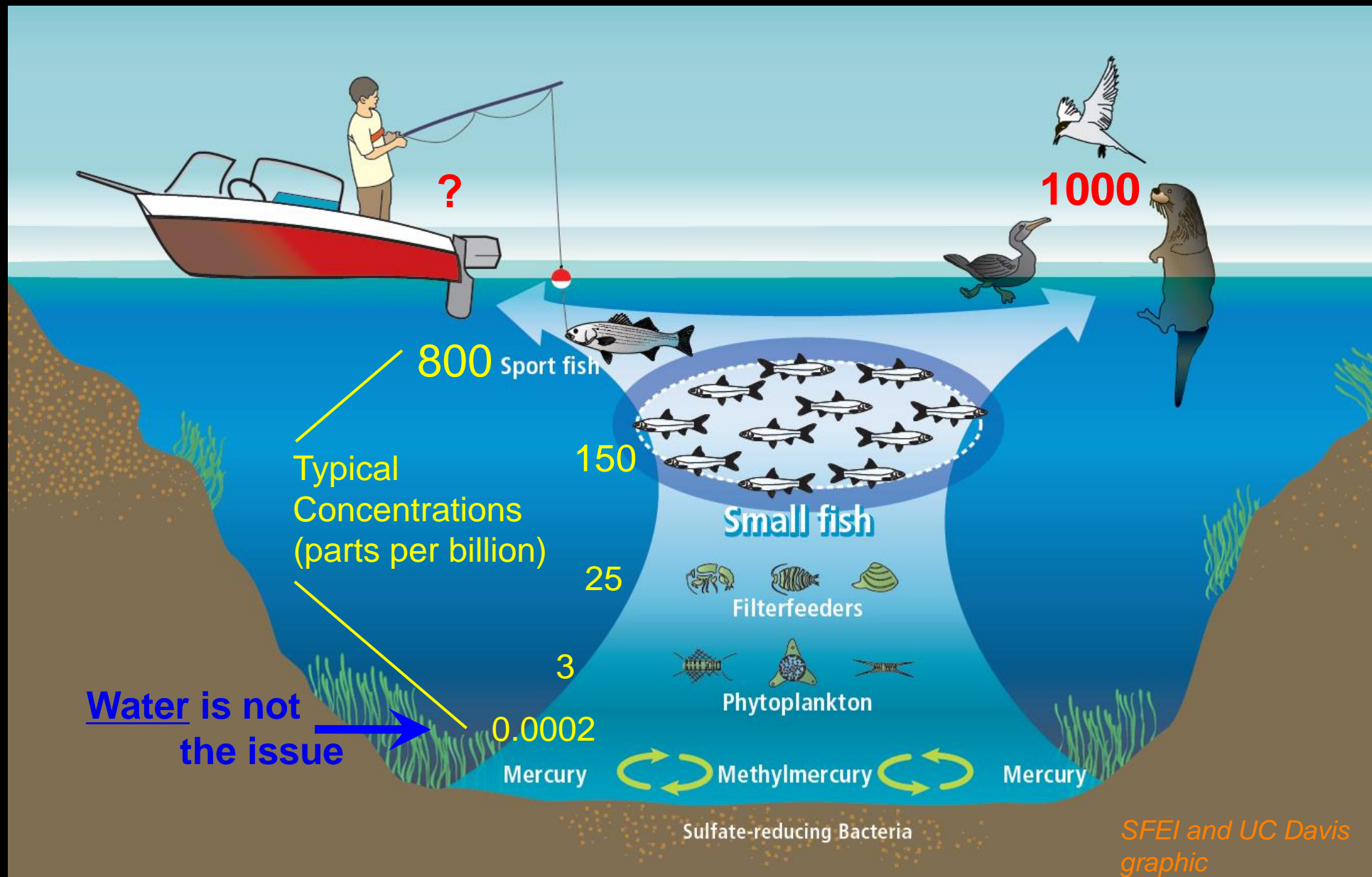
# Regional Mercury Projects, 1985 – (now)

(Slotton lab, UC Davis)

- Sierra gold zone
- Coast Range watersheds
- Sac / San Joaquin Delta
- San Francisco Bay
- SF Bay – whole watershed
- Cache Creek watershed



# Methylmercury – Biomagnification up the Human and Wildlife Food Chains



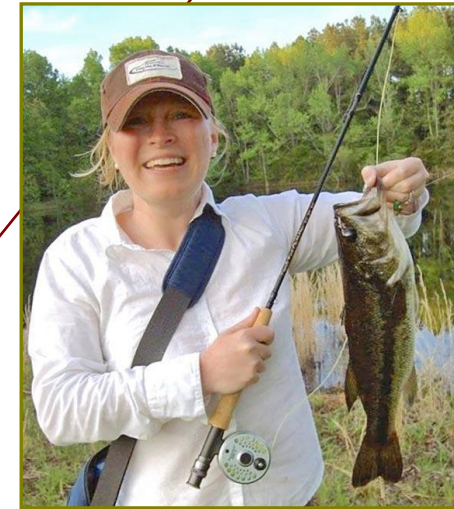
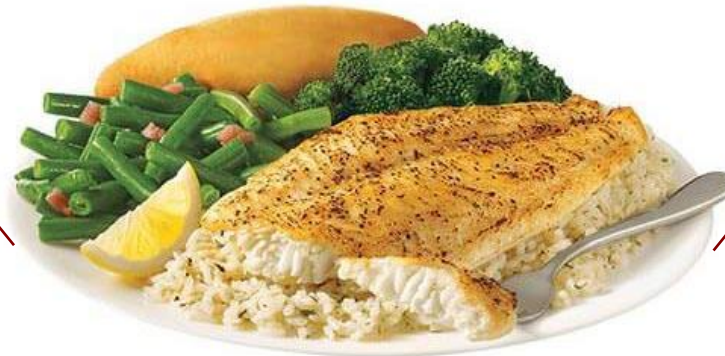


Two 10,000 gallon tanker trucks  
= about a lifetime of drinking water

= 80 years x 2.6 liters/day:  
20,000 gallons, or 75,000 liters



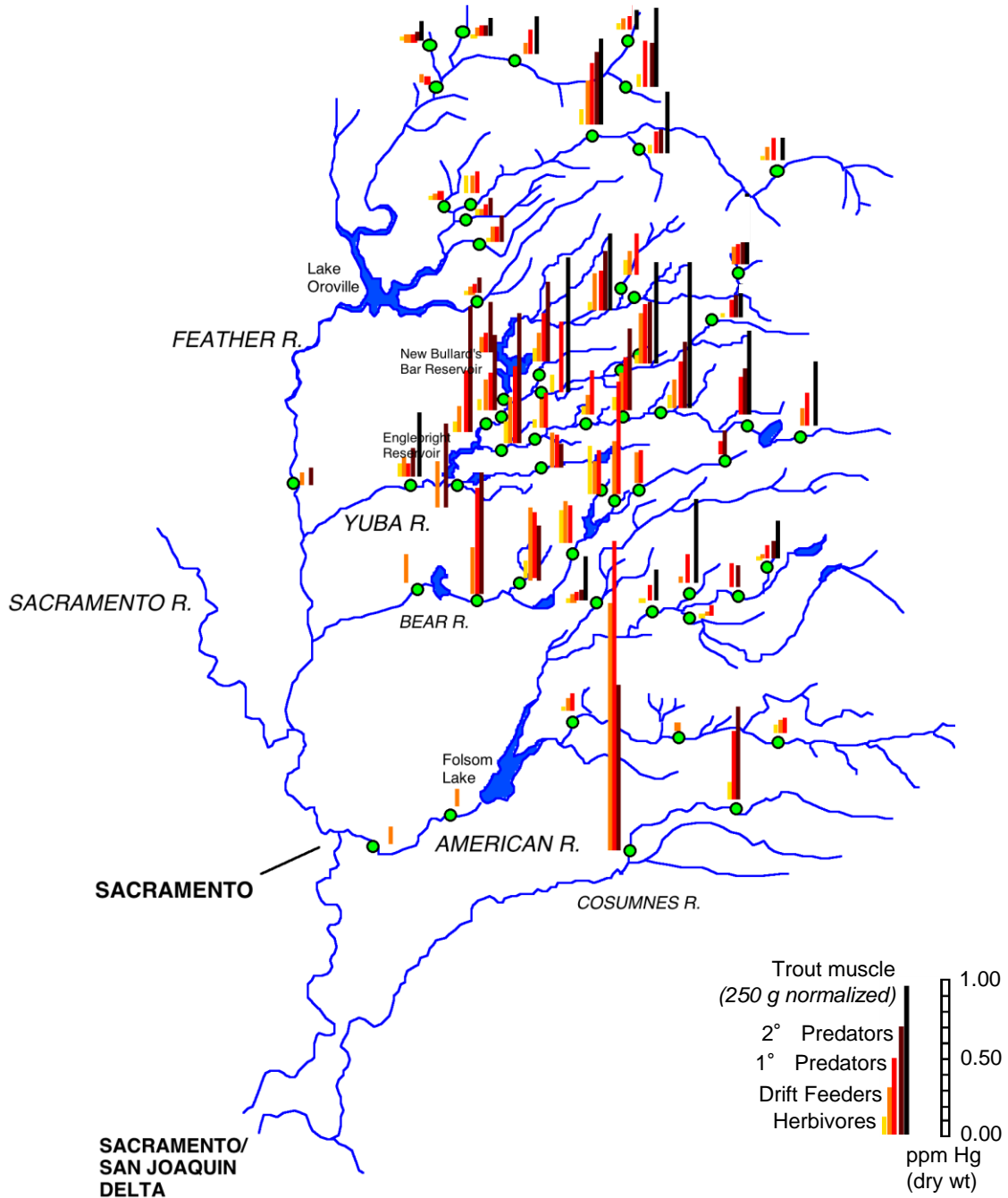
$75,000 \text{ L} \times .002 \mu\text{g/L} = \underline{150 \mu\text{g Methylmercury}}$ .  
*Lifetime – from high mercury water*



**One meal of (bass) from same site:**  
‘Standard portion’ = 8 ounces = 227 g  
 $227 \text{ g} \times 1.5 \mu\text{g/g} = \underline{340 \mu\text{g Methylmercury}}$

**“It’s the fish”**

# Trout and Aquatic Insect Mercury in Sierra Nevada Watersheds (1993-1997)

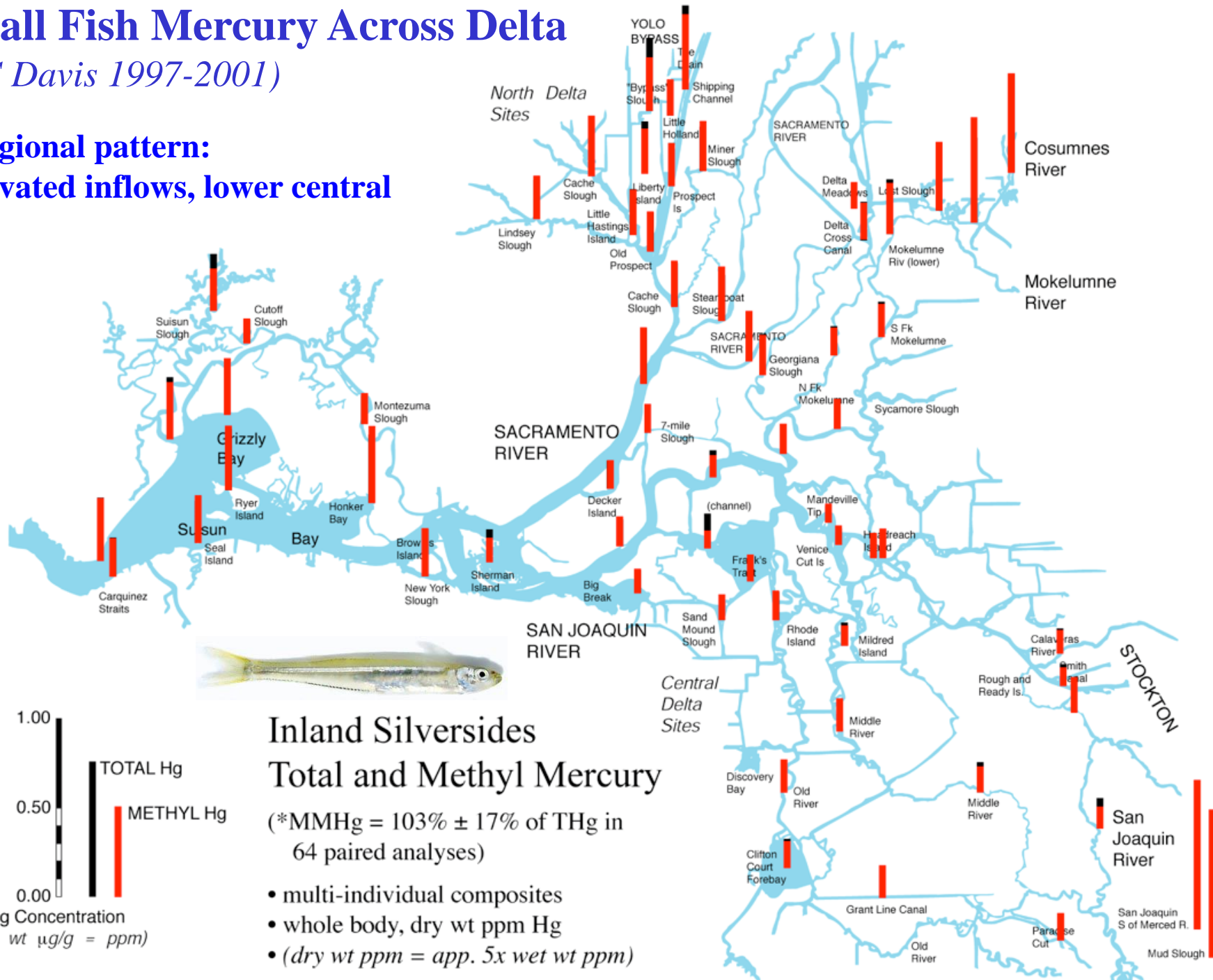


- Strong signal of residual, bioavailable mercury
- Centered on historic gold mining zone
- Low, baseline levels in un-mined rivers

# Small Fish Mercury Across Delta

(UC Davis 1997-2001)

- **Regional pattern:**  
**elevated inflows, lower central**

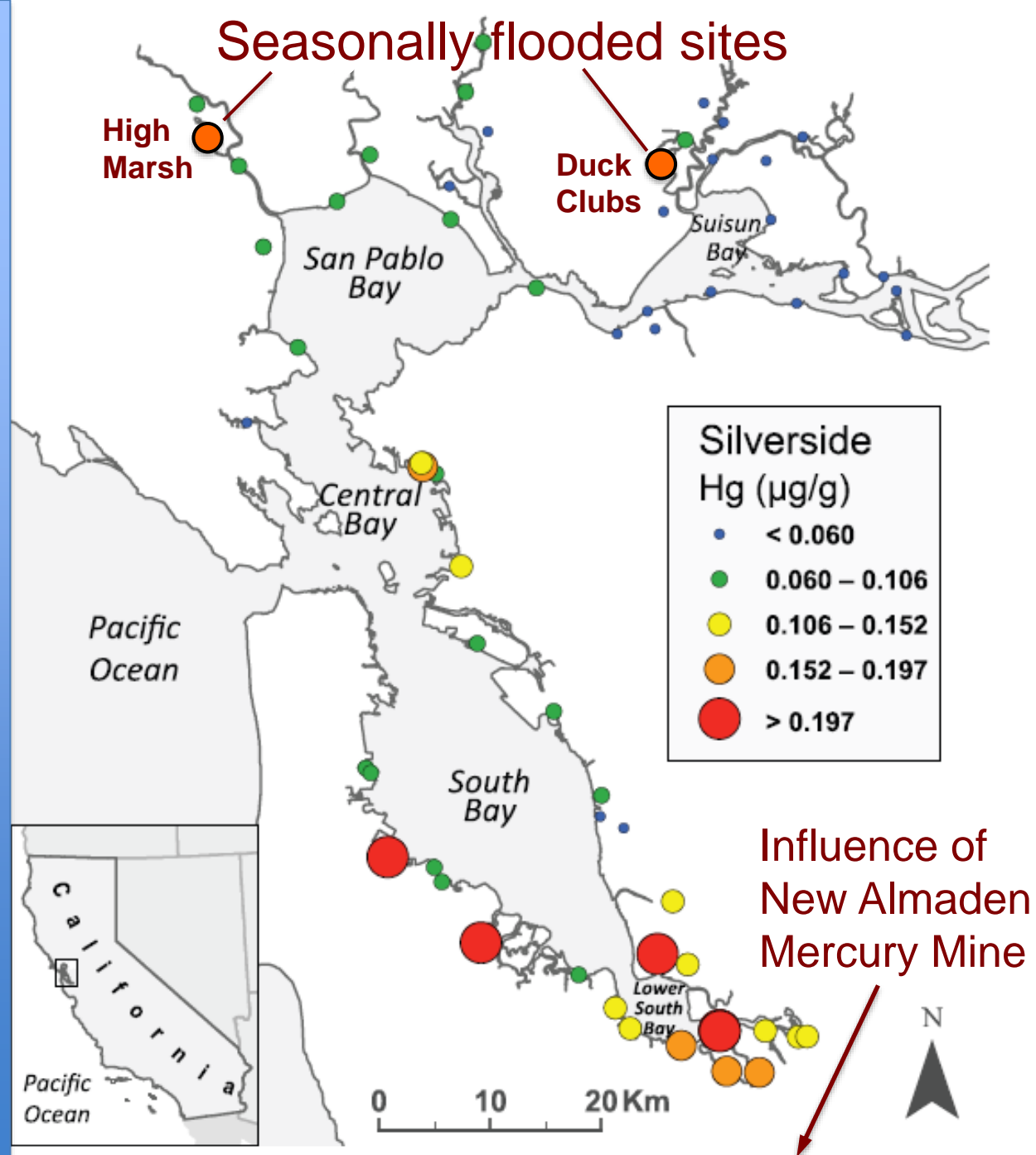


# San Francisco Bay Small Fish Mercury Trend (2008-2010)



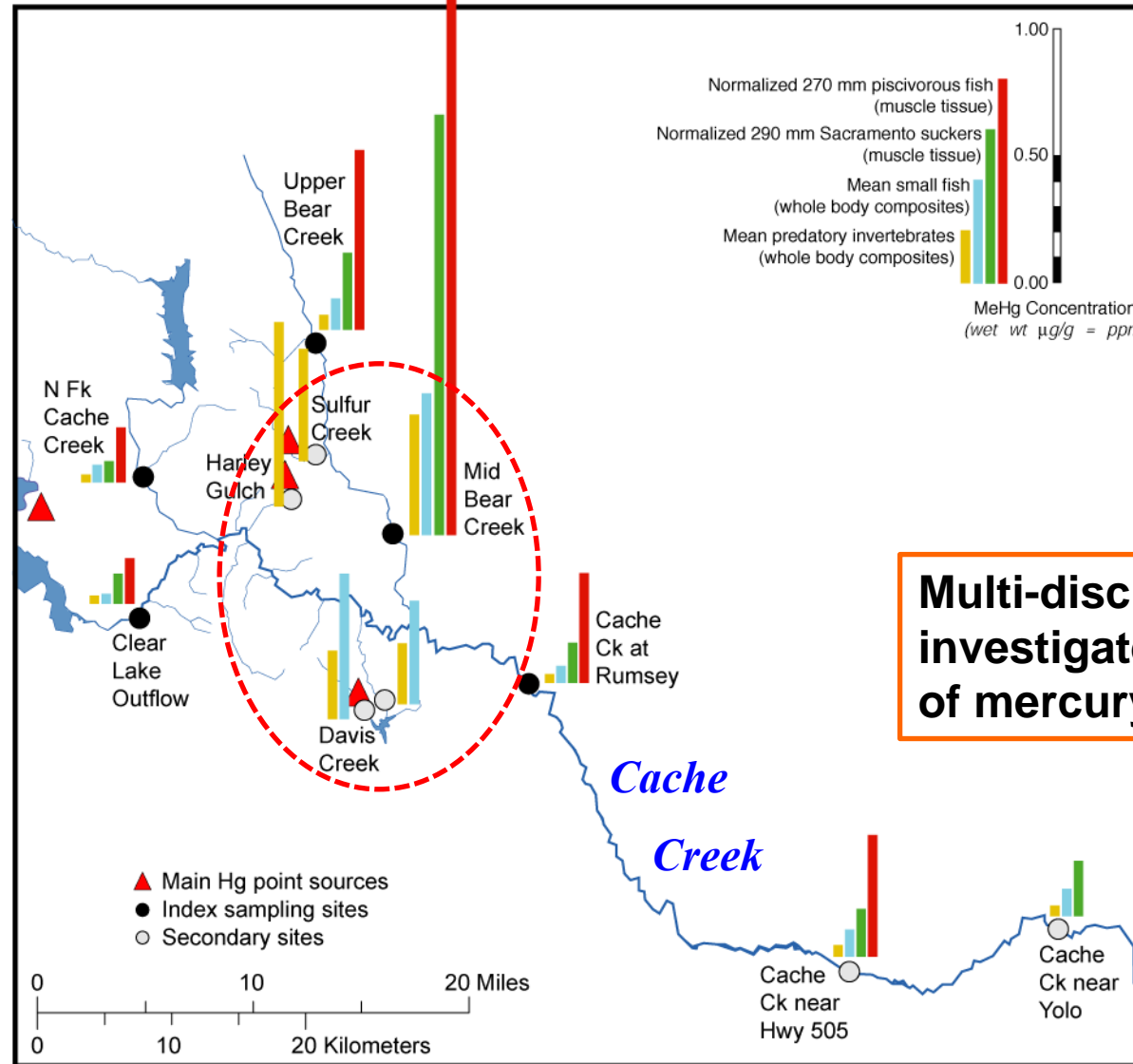
From Greenfield *et al.*  
(2013)

**SFEI** Regional Monitoring  
Program (RMP)  
and  
**UC Davis**



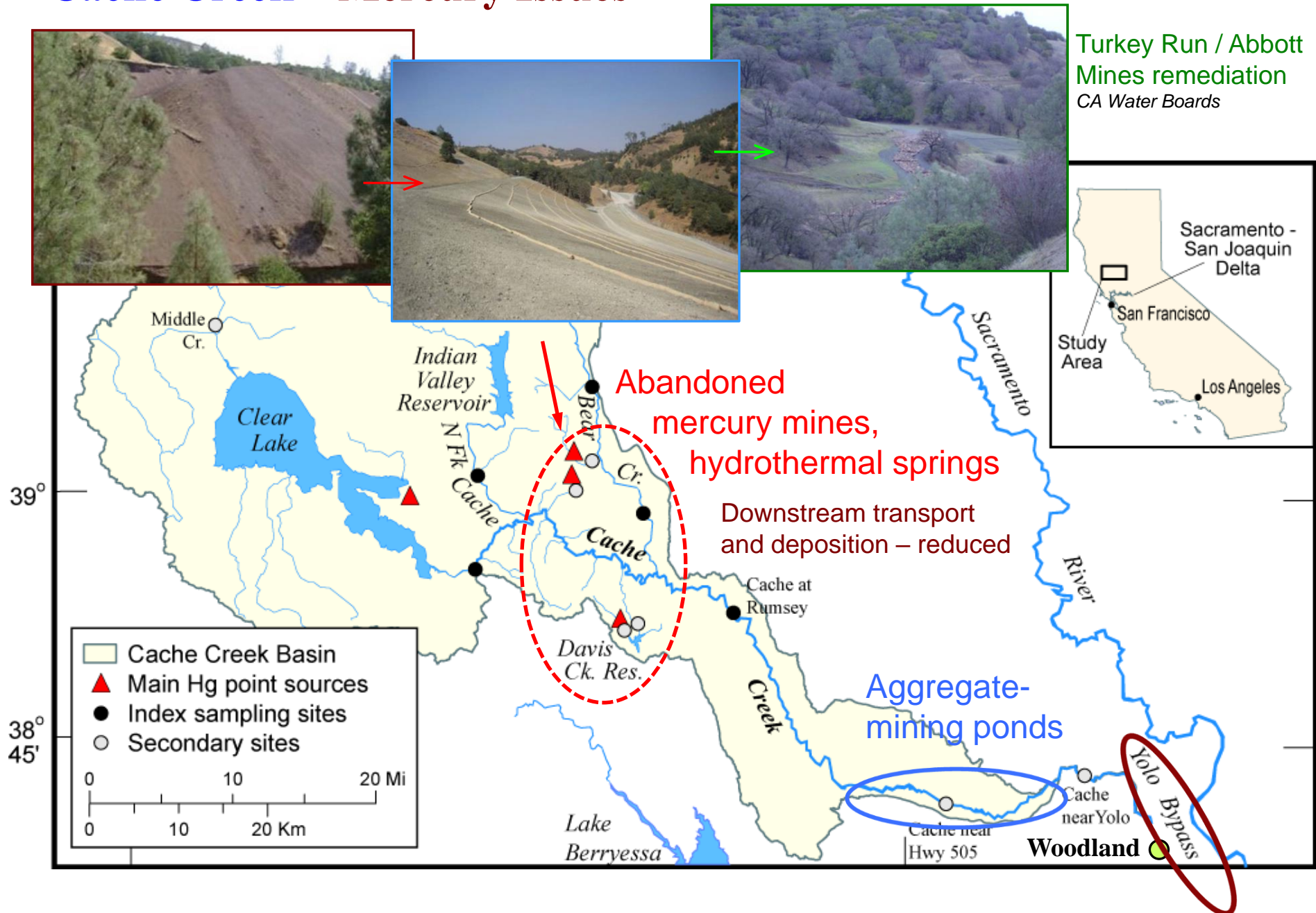
# Mercury Levels in Matching Fish Samples Across the Cache Watershed

Site data (greatly reduced) from multi-year, seasonal collections; *1998-2001 CalFed studies*



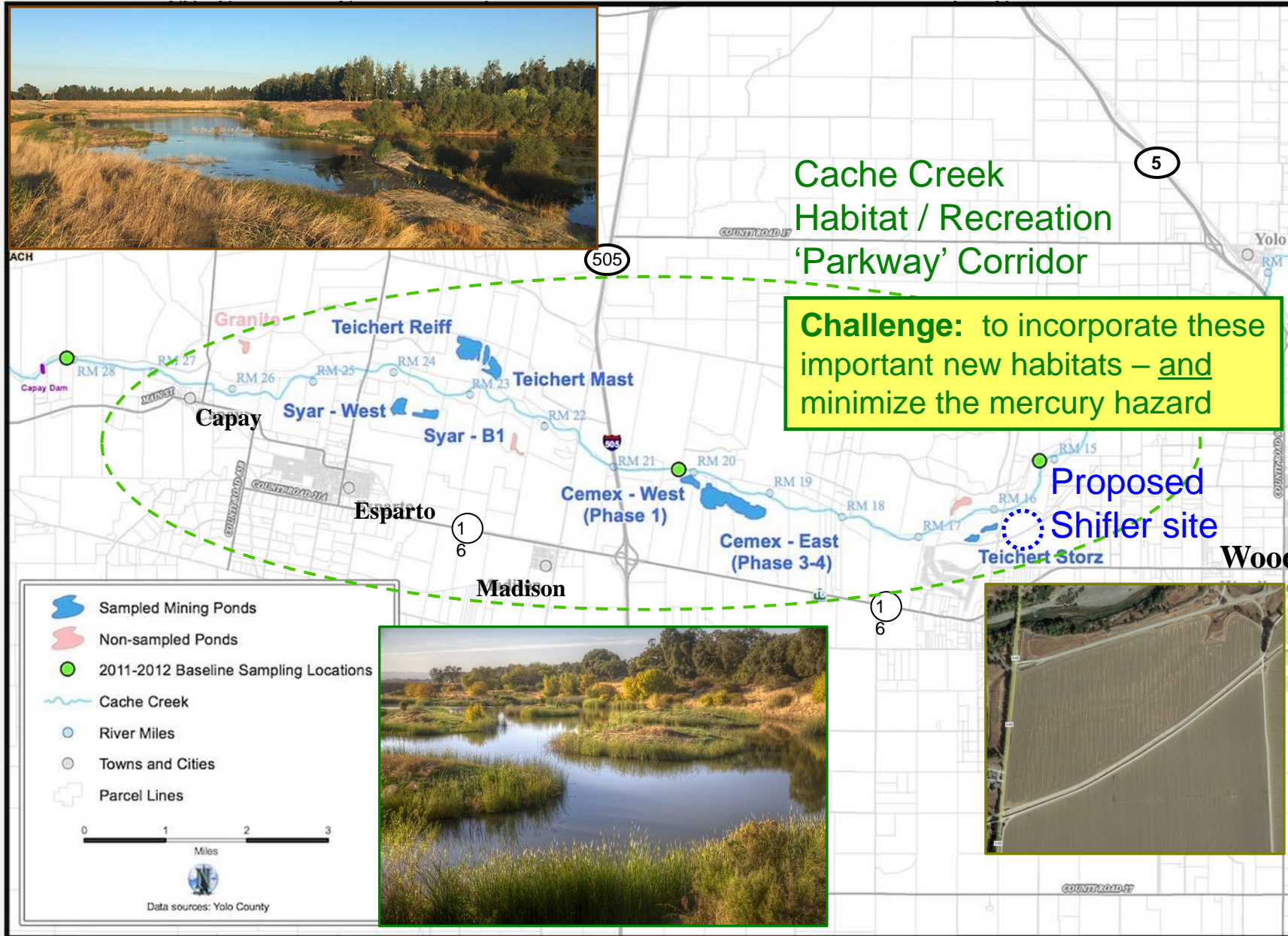
**Multi-disciplinary team investigated all aspects of mercury cycling**

# Cache Creek – Mercury Issues



# Cache Creek Off-Channel Aggregate Mining Ponds

- Moved out of the creek channel
- Strict regulatory Ordinance



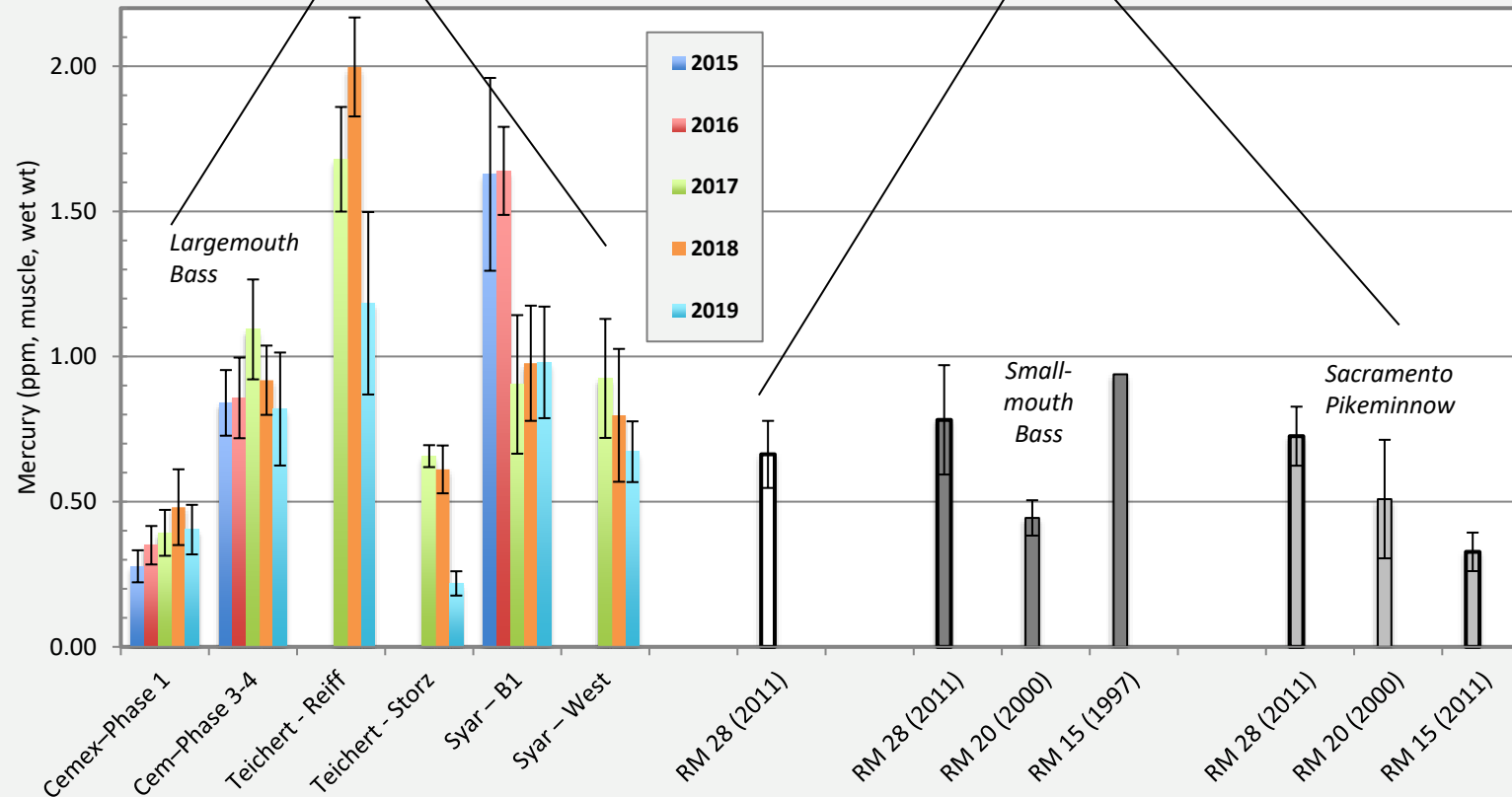
Cache Creek  
Habitat / Recreation  
'Parkway' Corridor

**Challenge:** to incorporate these important new habitats – and minimize the mercury hazard

Proposed  
Shifler site

## Summary monitoring data from angling-size bass: Aggregate pond sites and Cache Creek comparisons

*(app. 20 individual  
fish analyses per bar)*

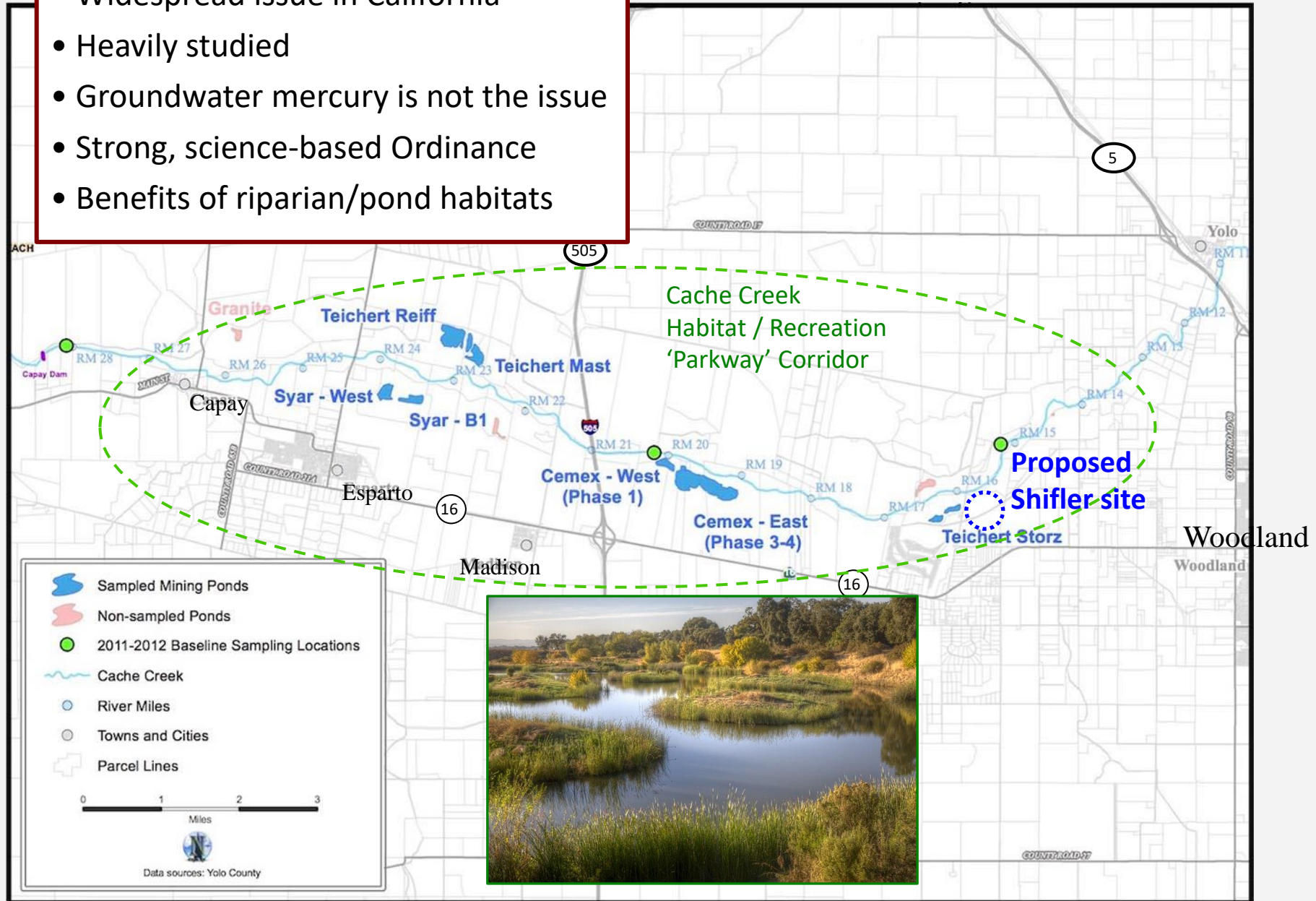


- Fish mercury was found above creek comparison levels at three of the ponds
- Adaptive management program – triggered:
- Expanded testing; development/implementation of mercury management plans
- Over-riding regulatory requirement: “Fix it or fill it”



## Summing Up:

- Widespread issue in California
- Heavily studied
- Groundwater mercury is not the issue
- Strong, science-based Ordinance
- Benefits of riparian/pond habitats



# OTHER ANALYZED ISSUES

- Aesthetics
- Air Quality, GHGs, and Energy
- Biological Resources
- Geology and Soils, Mineral Resources, Paleontological Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise
- Public Services, Utilities, Service Systems
- Cumulative Impacts
- Alternatives

# PLANNING COMMISSION RECOMMENDATIONS

- Increase vegetative cover performance standards in Reclamation Plan
- Include test plots for reclamation
- Require VCE power at 100% carbon free levels from start of mining
  
- Limit mining to tonnage limit approved for Schwarzgruber
- Require additional off-site easements on 212 acres of farmland
- Limit mining to 62 acres Phase A area north of Moore Canal

# RECOMMENDED ACTIONS

- Certify EIR (Att. B)
- Approve General Plan Amendment (Att. C)
- Approve Rezoning ordinance (Att. D)
- Approve Mining Permit (Att. E and Att. G)
  - Approve Conditions of Approval
  - Approve Tonnage Transfers
  - Reject 20% Exceedance
  - Authorize Mining in Streamway Influence Zone
- Approve Reclamation Plan (Atts. E, F, and G)
- Authorize Execution of Development Agreement (Att. H)
  - Approve Acceptance of Equivalent Net Gains

# REASONS FOR LOCAL SOURCE OF AGGREGATE

- State policy
- Local policy
- Aggregate can only be mined where it occurs
- Non-local sources are inconsistent with General Plan and CCAP
- Non-local sources worsen climate change impacts
- Non-local sources worsen air quality and energy impacts
- Non-local sources do not mitigate for loss of farmland
- Non-local sources do not manage water resources
- Non-local sources do not monitor or manage mercury
- Non-local source do not build Cache Creek Parkway
- Non-local sources impact County roads
- Non-local sources increase construction costs
- Cache Creek Parkway and HCP/NCCP at risk without CCAP

# REASONS FOR STAFF RECOMMENDATION

- Documented important gravel reserve
- Consistent with General Plan
- Consistent with CCAP
- Consistent with County Climate Action Plan
- Minimizes impacts to surrounding land uses and environment
- Minimizes and mitigates impacts to farmland
- Consolidates plant sites and upgrades Woodland Plant
- Program and project incorporate sustainability
- Important net gains and open space benefits
- Economic and fiscal benefits
- Project has been scaled back and improved

**END OF STAFF PRESENTATION**

# PROJECT TONNAGE OVERVIEW

Tonnage	Teichert Esparto	Teichert Schwarzgruber	Combined (Esparto + Schwarzgruber)	Teichert Shifler (Original Proposal)	Teichert Shifler (Staff Rec)	Teichert Shifler (PC Rec)
Total	33.33 mil mined	17.88 mil mined	51.21 mil mined	41.60 mil mined	35.40 mil mined	±7.00 mil
	30.00 mil sold	15.20 mil sold	45.20 mil sold	35.25 mil sold	30.00 mil sold	
Annual	1,176,471 mined	1,176,471 mined	2,352,942 mined	2,352,942 mined	2,117,648 mined	1,176,471 mined
	1,000,000 sold	1,000,000 sold	2,000,000 sold	2,000,000 sold	1,800,000 sold	1,000,000 sold
20% Exceedance	0	235,295 mined	235,295 mined	235,295 mined	0	0
	0	200,000 sold	200,000 sold	200,000 sold	0	
Max Annual	1,176,471 mined	1,411,766 mined	2,588,237 mined	2,588,237 mined	2,117,648 mined	1,176,471 mined
	1,000,000 sold	1,200,000 sold	2,200,000 sold	2,200,000 sold	1,800,000 sold	1,000,000 sold
Acres Mined	148	41	189	277	264	62

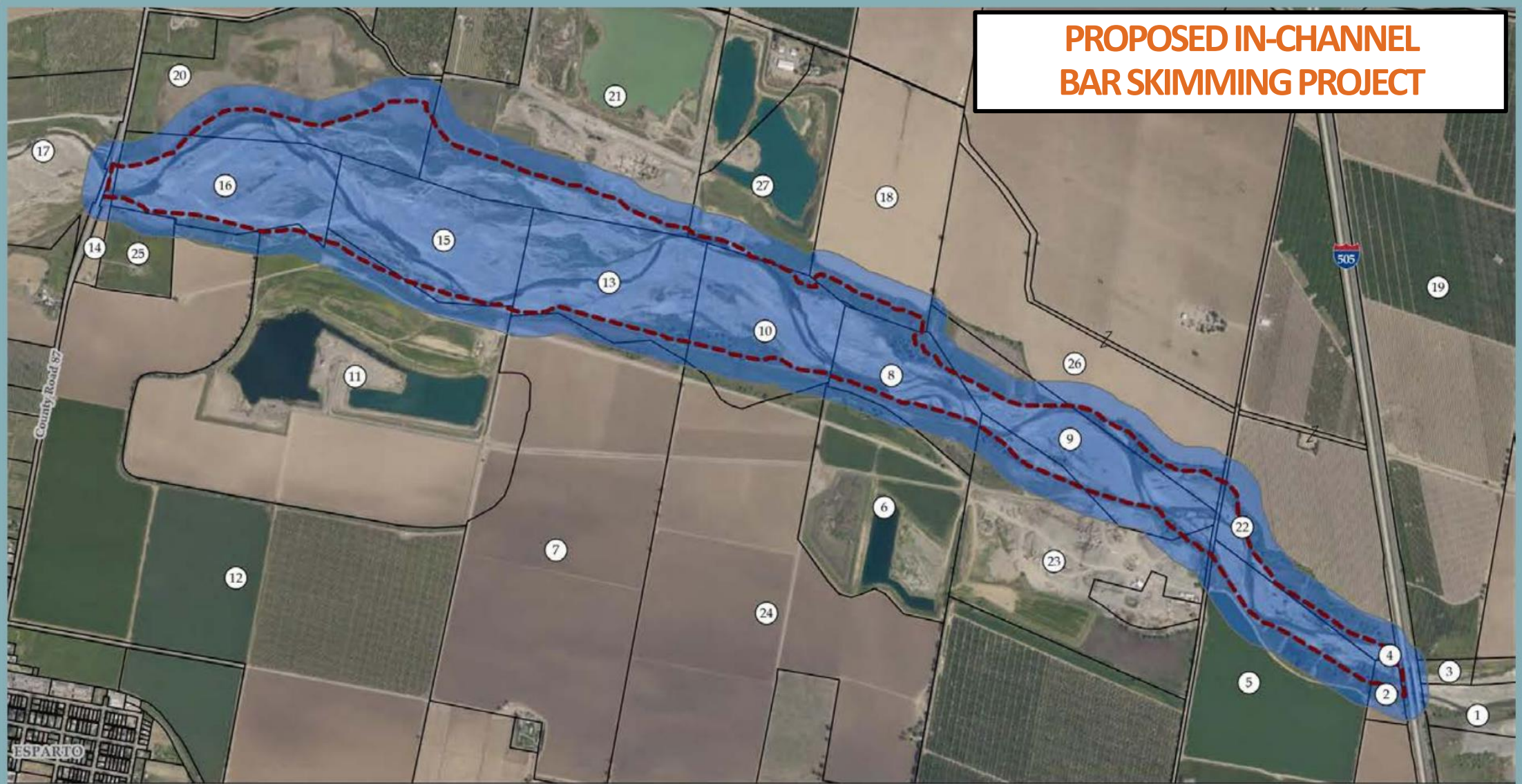


# AGRICULTURAL MITIGATION MATH

(rounded estimates)

- CCAP "base" requirement of 1:1 offset for permanent farmland loss
- 258 ac. impacted – 113 ac. reclaimed = 145 ac. permanent impact
- 145 ac. perm impact – 145 ac. offsite easement = 0 ac. at 1:1
- CCAP also requires “equivalency” with Countywide mitigation requirement of up to 3:1 for prime and 2:1 for non-prime
- 136 ac. prime impacted x 3 = 409 ac. max prime
- 9 ac. non-prime impacted x 2 = 18 ac. max non-prime
- 409 ac. prime + 18 ac nonprime = 426 ac. max. obligation
- Max. 426 ac. – 145 ac. offsite = 281 ac.
- 281 ac. – 212 ac. additional net gains = 69 ac. possible remaining obligation
- County Code and Condition #35 require full equivalency

# PROPOSED IN-CHANNEL BAR SKIMMING PROJECT

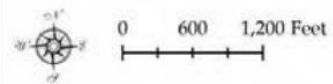


**LEGEND:**

- 300 Ft Buffer
- In-Channel Bar Skimming Project Limit  
± 422.61 Acres
- Parcel Boundaries

**SOURCE:**

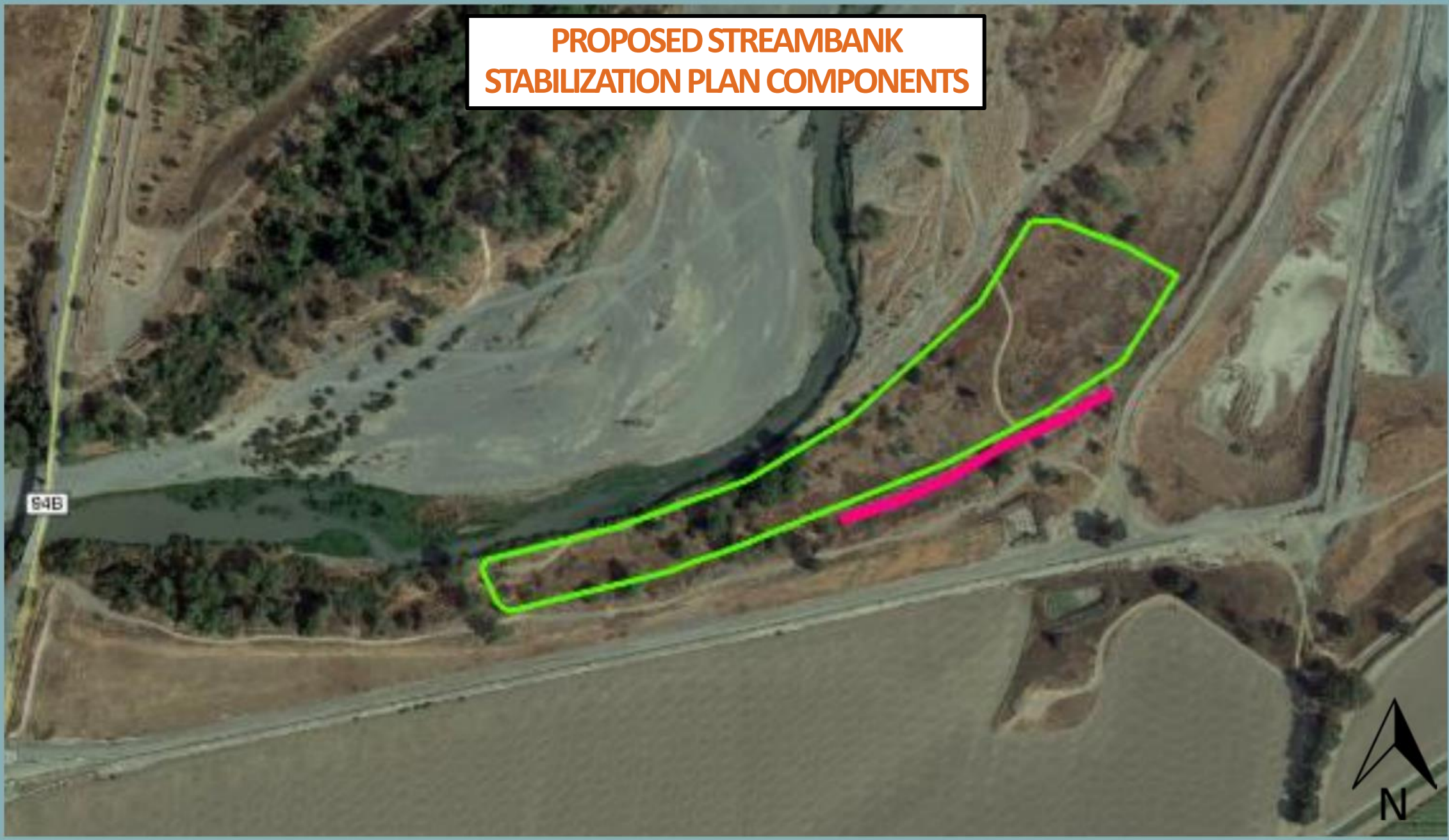
Parcel Boundaries Provided by Yolo County GIS (2020)  
 Parcel Ownership Provided by ParcelQuest (November 2020)  
 Aerial Photography Provided by ESRI Basemap & Affiliates (Yolo County: April 13, 2018)



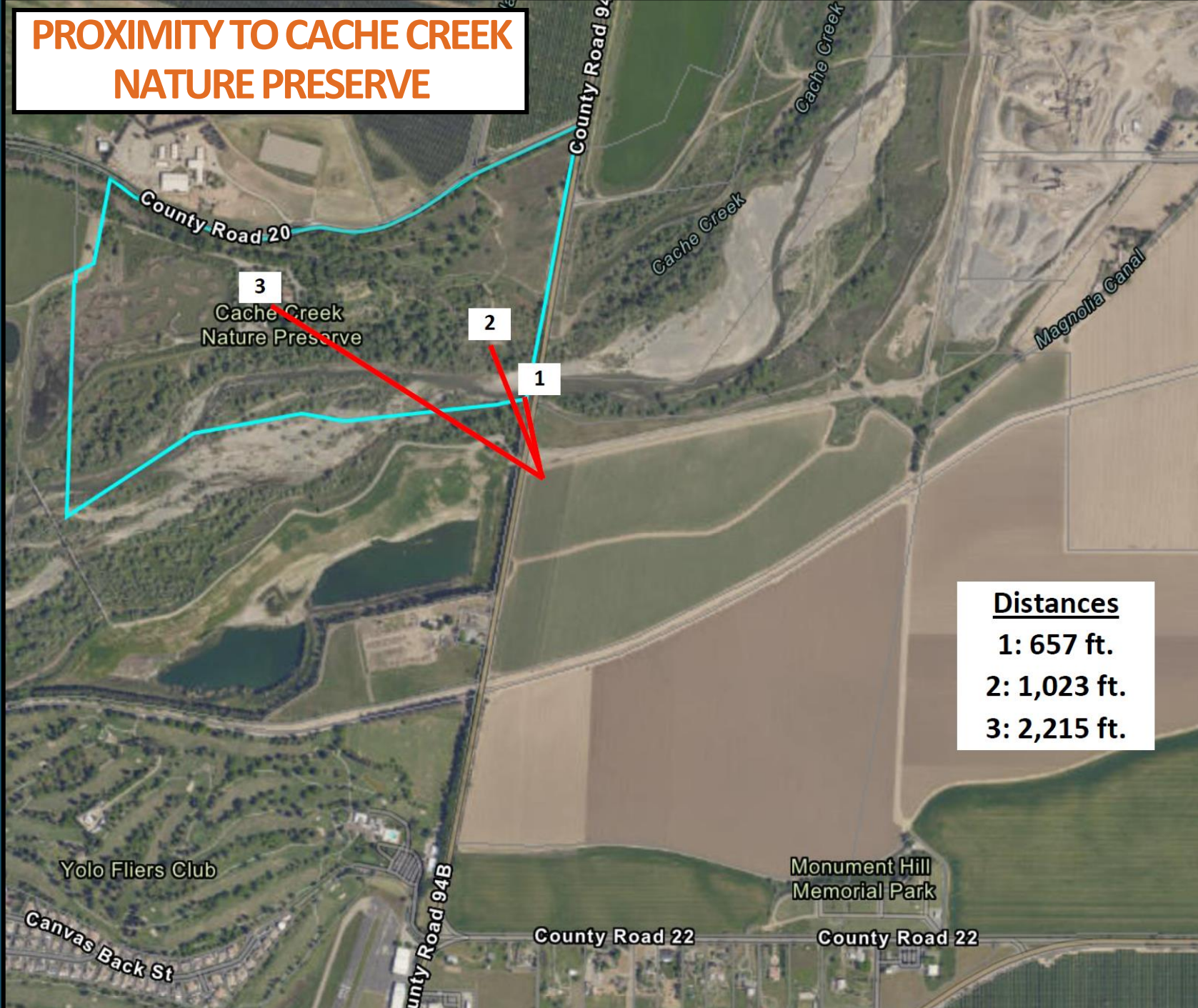
**DISCLAIMER:**

*The data was mapped for assessment purposes only. No liability is assumed for the accuracy of the data shown.*

**PROPOSED STREAMBANK  
STABILIZATION PLAN COMPONENTS**

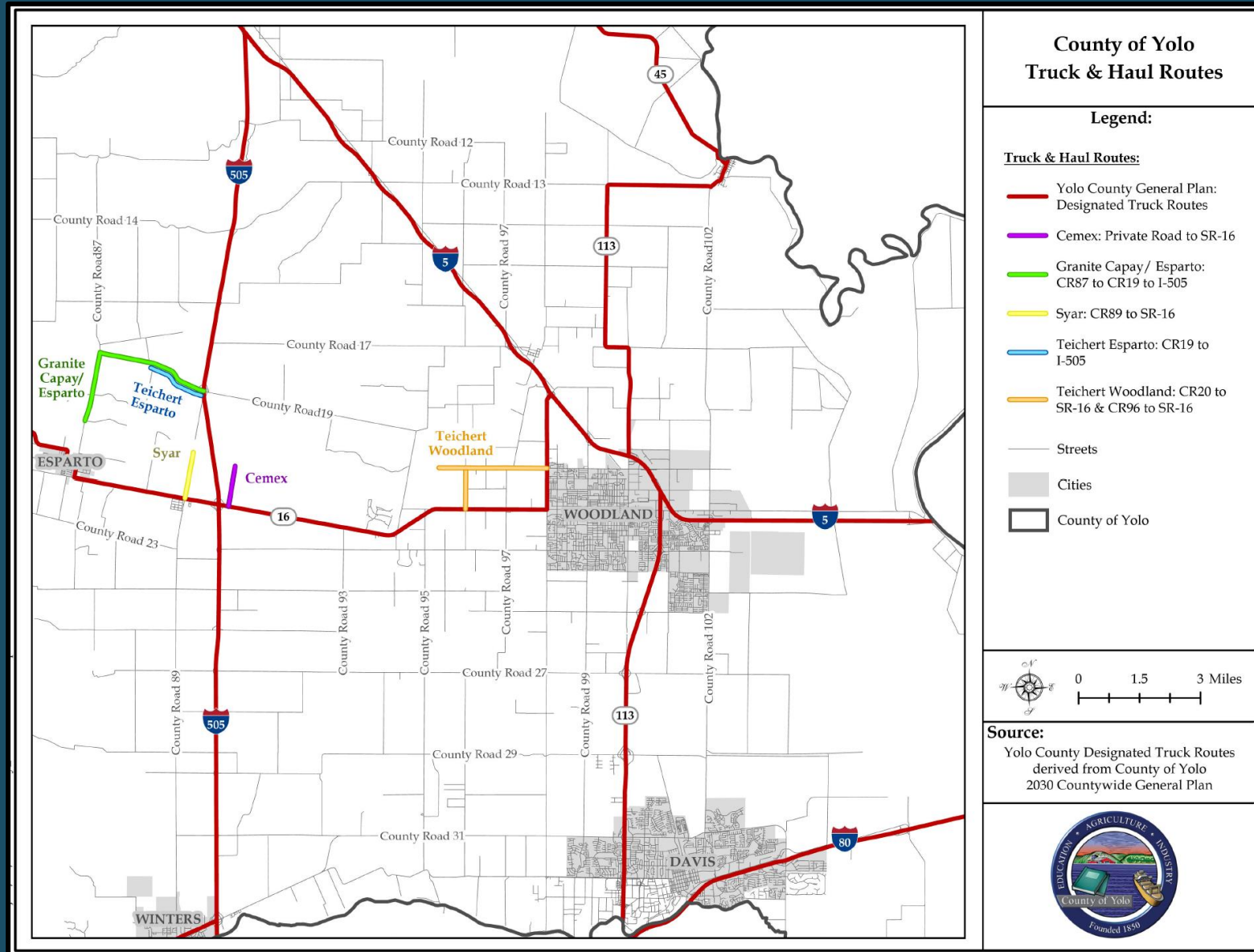


# PROXIMITY TO CACHE CREEK NATURE PRESERVE

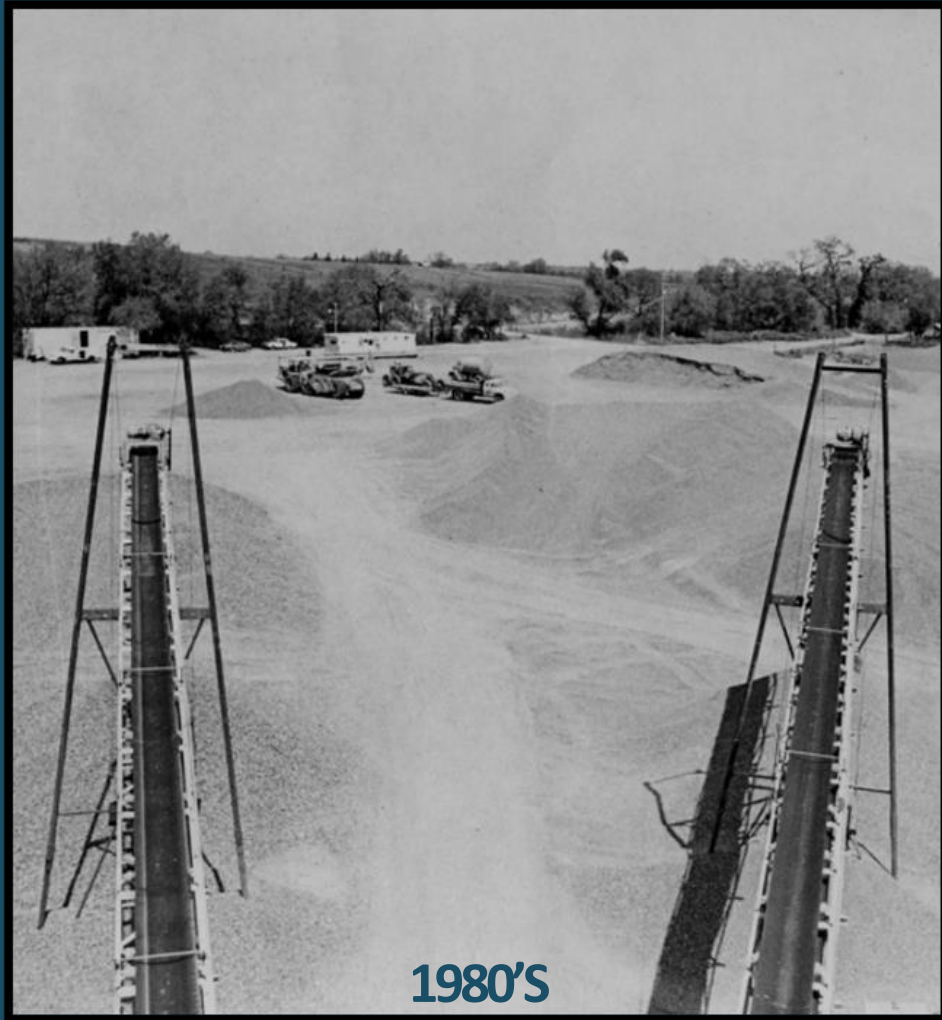


**Distances**  
1: 657 ft.  
2: 1,023 ft.  
3: 2,215 ft.

# HAUL ROUTES



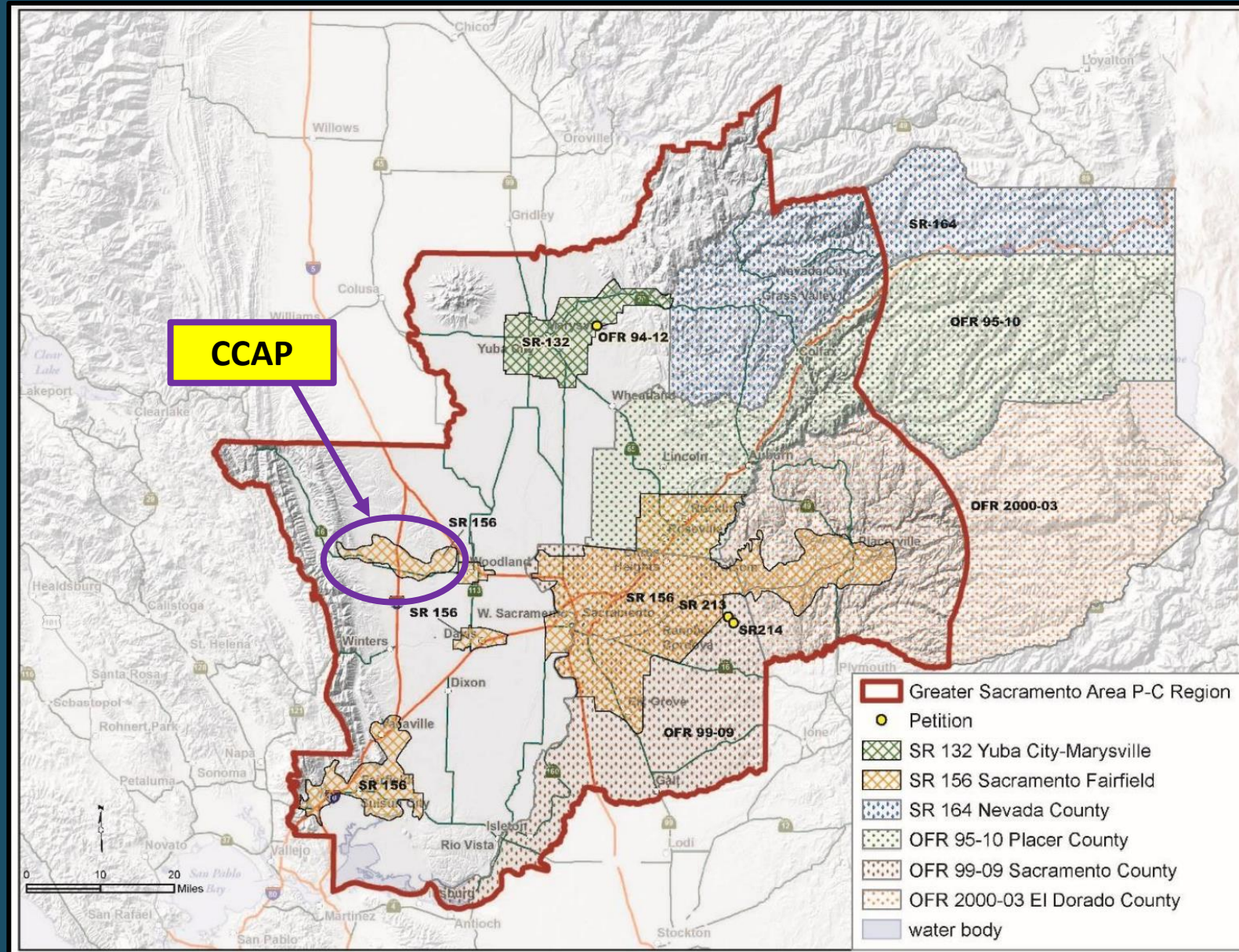
# CACHE CREEK NATURE PRESERVE



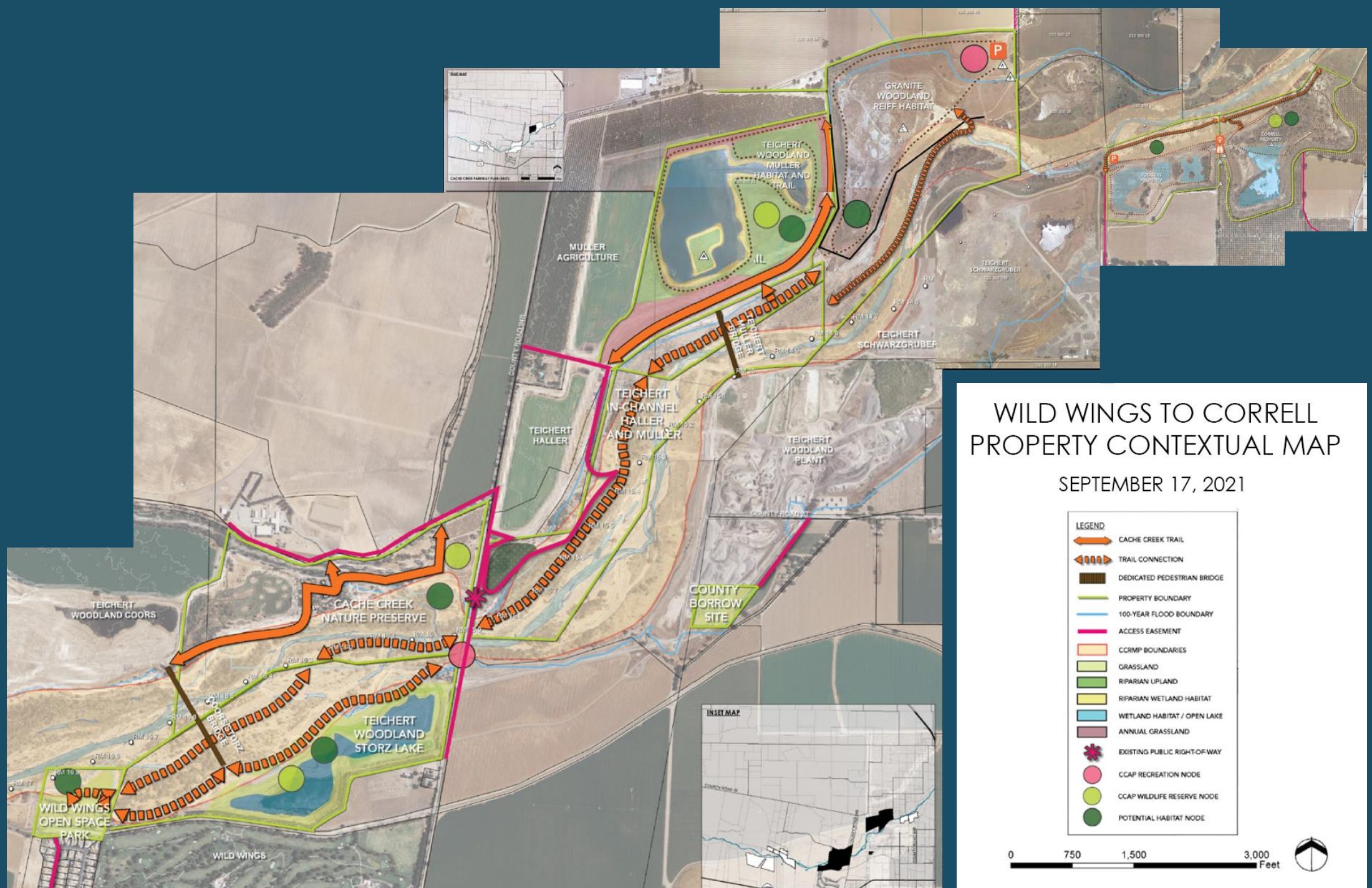
# PARKWAY ACTIVATION SCHEDULE

Site	Fee Point? <sup>2</sup>	Now - 2020	2021 - 2025	2026 - 2030	2031 - 2035	2036 -2040	2041 - 2045	2046 - 2050
West End – Phase 1								
COSP	Yes			x				
G-C + G-E Trail	No			x				
West End – Phase 2								
T-E	No				x			
Syar	Yes <sup>3</sup>				x			
West End - Phase 3								
G-E	Yes							x
Central								
Cemex	Yes <sup>3</sup>				x			
Millsap	No				x			
YCFCWCD	No				X <sup>4</sup>			
East End – Phase 1								
T-W-Muller	No	x						
G-W-Reiff	Yes	x						
Rodgers	Yes <sup>3</sup>	x						
Correll	No	x						
East End – Phase 2								
Wild Wings	No		x					
CCNP	Yes		x					
T-W-Storz	Yes <sup>3</sup>		x					
Coors/Storz Bridge	No		x					
East End – Phase 3								
T-In-Channel	No			x				
Muller Bridge	No			x				
County Borrow	No			x				

# REGIONAL MARKET FOR AGGREGATE







# WILD WINGS TO CORRELL PROPERTY CONTEXTUAL MAP

SEPTEMBER 17, 2021

- LEGEND**
- CACHE CREEK TRAIL
  - TRAIL CONNECTION
  - DEDICATED PEDESTRIAN BRIDGE
  - PROPERTY BOUNDARY
  - 100-YEAR FLOOD BOUNDARY
  - ACCESS EASEMENT
  - CCRMP BOUNDARIES
  - GRASSLAND
  - RIPARIAN UPLAND
  - RIPARIAN WETLAND HABITAT
  - WETLAND HABITAT / OPEN LAKE
  - ANNUAL GRASSLAND
  - EXISTING PUBLIC RIGHT-OF-WAY
  - CCAP RECREATION NODE
  - CCAP WILDLIFE RESERVE NODE
  - POTENTIAL HABITAT NODE



# MINING ECONOMIC ANALYSIS

(results for 2019 analysis year)

- 49 mining employees with an average wage of \$123,084 per year
- \$766,580 in total property taxes
- \$172,580 in sales tax
- \$2.1 million in fee revenues
- 29 new jobs
- \$5.7 million countywide
- Roadway maintenance
- Foundation and community involvement
- Local aggregate
- Reduced construction costs
- Cache Creek Parkway