



## *Upper Salinas-Las Tablas Resource Conservation District*

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May 15, 2001

Angela G. Carpenter  
Central Coast Regional Water Quality Control Board  
81 Higuera Street, Suite 200  
San Luis Obispo, CA 93401

Fax: 543-0397

RE: Water Quality Monitoring Data Summaries for the Salinas River and Tributaries

Dear Angela,

The Upper Salinas-Las Tablas Resource Conservation District (USLT-RCD), in cooperation with the Upper Salinas Watershed Coalition (USWC), has been collecting water quality data from various locations in the Salinas Watershed for the past year. I have attached the summary log sheets for our data. We have not completed the inputting of our data log sheets. However, I figured that the attached data might still be useful to you.

We consistently monitor certain sites along the Salinas River and several tributaries. Some sites have longer data histories than others and there are occasional holes where we may have missed a month. While we have collected some data for sites beginning in November 1999, we began monthly data collection in October 2000. Not all sites are monitored monthly. We often collect data regarding stream flow. The data is recorded in the field and then transferred to computer spread sheet. We are also collecting vegetation and morphological data for many of the same reaches.

### SURVEY SUMMARIES:

The data is being collected at over 20 locations, with monthly monitoring at three sites on Atascadero Creek and three on the Salinas River.

#### Monthly Monitoring Sites:

- Atascadero Creek at the Sycamore Street Bridge/Confluence with Salinas River  
This site (located at the southwest side of the bridge) is southeast of the current confluence with the Salinas River. There is year-round flow at the Sycamore Street Bridge, although during the summer and fall, the flow disappears about 300 feet downstream of the bridge.

- Atascadero Creek at the Historic Highway 41 Bridge  
This site is located about 4,100 feet upstream (southwest) from the Sycamore Street bridge monitoring site. This site also has year-round flow and numerous tree shaded deep pools. Fish are prevalent.
- Atascadero Creek at Three Bridges-Highway 41  
This site is located approximately 20,500 feet upstream from the Historic Highway 41 Bridge. This site has year-round flow. The site is above a broad meander turn at the western most third bridge. Steelhead have been verified in this reach of Atascadero Creek.
- Salinas River at confluence with Atascadero Creek  
This site is located just downstream from the confluence with Atascadero Creek. This site does not flow year-round.
- Salinas River at 13<sup>th</sup> Street Bridge, Paso Robles  
This site is located at the 13<sup>th</sup> Street Bridge. This site does not flow year-round. This site is about eight miles south of the confluence with the Estrella River.
- Salinas River at the San Miguel Bridge, San Miguel  
This site is located at the San Miguel Bridge. This site does not flow year-round. This site is about one mile downstream (north) of the confluence with the Estrella River.

#### Irregular Monitoring Sites:

- Salinas River at the Bradley Bridge  
This site is located just north of the town of Bradley and includes the flow of the Nacimiento River. It is approximately four miles downstream from the confluence of the Salinas and Nacimiento Rivers.
- Salinas River at Highway 58 Bridge  
This site is approximately eight miles north (downstream) of the Salinas Dam.
- Atascadero Creek at High School  
This site is next to the arroyo at the High School. The High School Science Class assists in monitoring this location

- Atascadero Creek at Eagle Ranch  
This site is near Hale Creek.
- Graves Creek at Monterey Road
- Estrella River at River Road  
This site is located at the overcrossing of the river at River Road and approximately ¼ mile upstream of the confluence of the Estrella River and the Salinas River.
- Estrella River at Airport Road  
This site is located at the overcrossing of the Estrella River at Airport Road.
- Little Cholame Creek at the Parkfield Bridge  
This site is located downstream of the town of Parkfield near the confluence with the Cholame Creek
- Little Cholame Creek at "Field Study Site"  
This site is at the recently modified channel location, next to the 13-acre grazing field study site.
- Little Cholame Creek at "Margy Bridge"  
This site is at a small bridge approximately four miles north of the confluence of the Little Cholame and the Cholame Creeks.
- Little Cholame Creek at "V-6 Ranch headquarters"  
This site is located just downstream of the confluence of the Little Cholame and Pine Canyon Creeks
- Huerhuero Creek at River Road  
This site is located at the road crossing, just upstream of the confluence of the Huerhuero Creek and Salinas River.
- Santa Margarita Creek at El Camino Real  
This site (located at the southwest side of the bridge) is southeast of the current
- Rinconada Creek at 5 Mile Bridge

- Trout Creek at 1 mile Bridge
- Paso Robles Creek at Santa Rita Road Bridge

#### EQUIPMENT:

Following is a list of the equipment used to complete this field survey:

pH	pH is determined using a LaMotte test kit and testabs #6459 reagent
Nitrate	Nitrate content is determined using a LaMotte reagent test kit and sulfamic acid testabs #2799 and chromotropic acid and zinc testabs #NN-3703
Phosphate	Phosphate content is determined using a LaMotte reagent test kit and ammonium molybdate testabs #5422
Dissolved Oxygen	Dissolved oxygen is determined using a LaMotte test kit and sodium citrate and 2,4-Diaminophenol dihydrochloride testabs #3976
Temperature	Temperature is measured using an Enviro-Safe Armored Thermometer graduated in increments of degrees half degrees centigrade (NIST certified).
Turbidity	<p>Turbidity is determined using two methods: A turbidity tube test is conducted for each sample location using a 60-centimeter transparency turbidity tube manufactured by Lawrence Laboratories.</p> <p>Turbidity is also determined in Jackson Turbidity Units using a LaMotte model TTM test kit containing reagents kaolin and magnesium nitrate.</p>
Sediment Concentration	Suspended Sediment concentration is determined using a graduated LaMotte 1000 ml Imhoff Sediment Cone. Sediment is collected and allowed time to settle out in the cone. The sediment volume is recorded in cubic centimeters.
Total Dissolved Solids	TDS is determined by using an Oakton TDSTestr 10 dual range meter. Low range is 100 to 999 ppm and high range is 2.00-9.99 ppt. Accuracy is 2 % F.S.
Stream	Stream flow is determined by measuring the cross-sectional area of the stream

Flow (determine width and average depth) and stream velocity (either by meter or by measuring the time taken to float an object past a given distance). The flow meter is the Flow Probe Hand Held Flowmeter.

Other Parameters Percent bank-ground coverage by vegetation, soil and creek odors, water appearance, current and previous recent weather conditions are also recorded at each site. Each site is photographed showing the right and left banks and upstream and downstream views.

#### **Additional Studies**

We are also conducting morphological and vegetation studies for numerous reaches on the streams and rivers listed above. Detailed morphological and vegetation studies are being conducted on Atascadero Creek, portions of the Salinas River and on the Little Cholame Creek. This is part of a larger project to implement the Action Plan for the Monterey National Marine Estuary. Also, the USLT-RCD is in the process of preparing a Watershed Management Plan for the Upper Salinas River.

Sincerely,

Donald J. Funk  
Executive Director

ATTACHMENTS  
Water Quality Monitoring Summaries

Angela,

I converted the Upper Salinas River data to excel and included them as attachments along with the letter. Sometimes converted files include some small glitches, but hopefully they should be okay.

DJ Funk  
USLT-RCD

	A	B	C	D	E
1	Creek or River:	Little Cholame Creek			
2	Site Location:	Parkfield Bridge			
3					
4	DATA SUMMARY BY MONTH				
5	Year: 2001	Key	Jan	Feb	Mar
6	Weather				
7	Weather (C=clear/R=rain/RH=heavy rain/ /M=mist/F=Foggy or cloudy)			F	
8					
9	Weather Previous 48 hrs.				
10	Air Temperature in Degrees C			13	
11					
12	Soil and Bank Characteristics				
13	Bank Odors (N=no odor/S=sulfur/C=Chem			N	
14	Mu=musty/M=Marshy/Chl=chlorine/O=Other				
15					
16	Stream Water Quality Data				
17	Water Temperature in Degrees C			10	
18	Water Appearance (C=clear/S=scum			M/Col	
19	F=Foamy/M=milky/Col=colored/NF=no flow				
20	Creek Odors (N=no odor/S=sulfur/C=Chem			N	
21	Mu=musty/M=Marshy/Chl=chlorine/O=Other				
22	Dissolved Oxygen (ppm)			4	
23	Nitrates (ppm)			1	

	A	B	C	D	E
24	pH			8	
25	Phosphate (ppm)			1.75	
26	Turbidity (JT units)			70	
27	Conductivity				
28	Total Dissolved Solids			829	
29	Supplemental Water Sampling Data				
30	Biochemical Oxygen Demand (BOD in ppm)				
31	Coliform Bacteria (no. of colonies)				
32					
33	Stream Flow				
34	Feet per second			1.05	
35	Cross-sectional area of creek			2.919	
36	Cubic ft./sec.			3.19	
37					
38	Quarterly Evaluations				
39	Percentage of bare soil				
40	Percentage of Veg. ground cover				
41	Percentage of overhead coverage (shading)				
42					
43	Yearly Channel Evaluations				
44	Morphological Survey Information				
45	Vegetation Survey Information				
46					



	A	B	C	D	E
47	Misc Notes:				
48					
49					
50					

	F	G	H	I	J	K	L	M
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2								
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4								
5	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
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	N	O	P	Q	R	S	T
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## Water Quality Monitoring Summaries

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## Water Quality Monitoring Summaries

Creek or River:	Atascadero Creek													
Site Location:	Sycamore Bridge													
DATA SUMMARY BY MONTH														
Year: 2000	Key	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Weather														
Weather (C=clear/R=rain/RH=heavy rain/ /M=mist/F=Foggy or cloudy)											C	C	C	
Weather Previous 48 hrs.														
Air Temperature in Degrees C											15.5	18.5	15.5	
Soil and Bank Characteristics														
Bank Odors (N=no odor/S=sulfur/C=Chem Mu=musty/M=marshy/Chl=chlorine/O=Other)											N	N	N	
Stream Water Quality Data														
Water Temperature in Degrees C											15	13.5	11.5	
Water Appearance (C=clear/S=scum F=foamy/M=milky/Col=colored/NF=no flow)											C	C	C	
Creek Odors (N=no odor/S=sulfur/C=Chem Mu=musty/M=marshy/Chl=chlorine/O=Other)											N	N	N	
Dissolved Oxygen (ppm)											6	6	6	
Nitrates (ppm)											0	1	0	
pH											7	8	8	
Phosphate (ppm)											1	1	1	
Turbidity (JT units)											0	0	0	
Sediment, cu. cm per 1000 ml water														
TDS														
Supplemental Water Sampling Data														
Biochemical Oxygen Demand (BOD in ppm)														
Coliform Bacteria (no. of colonies)														
Stream Flow														
Feet per second											1.5	1.5	1.5	
Cross-sectional area of creek											0.5	0.3	0.2	
Cubic ft/sec.											0.75	0.4	0.3	
Quarterly Evaluations														
Percentage of bare soil											26-50		0-10	
Percentage of Veg. ground cover											51-75		26-50	
Percentage of overhead coverage (shading)											0-10		0-10	
Yearly Channel Evaluations														
Morphological Survey Information														
Vegetation Survey Information														
Misc. Notes:											Trout in pool			

## Water Quality Monitoring Summaries

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Creek or River:	Estrella River												
2	Site Location:	North River Road near San Miguel												
3														
4	DATA SUMMARY BY MONTH													
5	Year: 2001	Key	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	Weather													
7	Weather (C=clear/R=rain/RH=heavy	C			R	C								
8	/M=mist/F=Foggy or cloudy)													
9	Weather Previous 48 hrs.	RH			RH	R								
10	Air Temperature in Degrees C				15	13								
11														
12	Soil and Bank Characteristics													
13	Bank Odors (N=no odor/S=sulfur/C=Chem				N	N								
14	Mu=musty/M=marshy/Chl=chlorine/O=Other													
15														
16	Stream Water Quality Data													
17	Water Temperature in Degrees C				11									
18	Water Appearance (C=clear/S=scum	NF			Col	NF								
19	F=Foamy/M=milky/Col=colored/NF=no flow													
20	Creek Odors (N=no odor/S=sulfur/C=Chem				N									
21	Mu=musty/M=marshy/Chl=chlorine/O=Other													
22	Dissolved Oxygen (ppm)													
23	Nitrates (ppm)													
24	pH													
25	Phosphate (ppm)													
26	Turbidity (JT units)													
27	Conductivity													
28	Supplemental Water Sampling Data													
29	Biochemical Oxygen Demand (BOD in ppm)													
30	Coliform Bacteria (no. of colonies)													
31														
32	Stream Flow													

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Creek or River:	Little Cholame Creek												
2	Site Location:	Parkfield Bridge												
3														
4	DATA SUMMARY BY MONTH													
5	Year: 2000	Key	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	Weather													
7	Weather (C=clear/R=rain/RH=heavy rain/ M=mist/F=Foggy or cloudy)				C								F	
8	Weather Previous 48 hrs.													
10	Air Temperature in Degrees C				20								10	
11														
12	Soil and Bank Characteristics													
13	Bank Odors (N=no odor/S=sulfur/C=Chem Mu=musty/M=Marshy/Chl=chlorine/O=Other)				N								N	
14														
15														
16	Stream Water Quality Data													
17	Water Temperature in Degrees C												15	
18	Water Appearance (C=clear/S=scum F=Foamy/M=milky/Col=colored/NF=no flow)				C								C	
19														
20	Creek Odors (N=no odor/S=sulfur/C=Chem Mu=musty/M=Marshy/Chl=chlorine/O=Other)				N								N	
21														
22	Dissolved Oxygen (ppm)												6.5	
23	Nitrates (ppm)				0								0	
24	pH				8								8.5	
25	Phosphate (ppm)				4								3.5	
26	Turbidity (JT units)				0								0	
27	Conductivity													
28	Total Dissolved Solids													
29	Supplemental Water Sampling Data													
30	Biochemical Oxygen Demand (BOD in ppm)													
31	Coliform Bacteria (no. of colonies)													
32														

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
33	Feet per second							1						
34	Cross-sectional area of creek							0.1						
35	Cubic ft./sec.							0.1						
36														
37	Quarterly Evaluations													
38	Percentage of bare soil													
39	Percentage of Veg. ground cover													
40	Percentage of overhead coverage (shading)													
41														
42	Yearly Channel Evaluations													
43	Morphological Survey Information													
44	Vegetation Survey Information													
45														
46	Misc Notes:					birds								

## Water Quality Monitoring Summaries

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
33	Feet per second													
34	Cross-sectional area of creek													
35	Cubic ft./sec.													
36														
37	Quarterly Evaluations													
38	Percentage of bare soil							11-25						
39	Percentage of Veg. ground cover							51-75						
40	Percentage of overhead coverage (shading)							26-50						
41														
42	Yearly Channel Evaluations													
43	Morphological Survey Information													
44	Vegetation Survey Information													
45														
46	Misc Notes:					swallows								

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	A	B	C	D	E	F	G
1	LOCATION	Monitoring	Time	Sediment	Turbidity	Turbidity	
2		Date		Cone Reading	Reading	Transparency	
3				cubic cm	JTU	Tube in	
4				per 1000 ml		Centimeters	
5	Atas Cr @ old 41 bridge	35484	11 am	0.4			
6	Atas Cr @ old 41 bridge	35440	3 pm	1.5			
7	Atas Cr @ old 41 bridge	35493	4 PM	1.5	150	4	
8	Atas Cr @ old 41 bridge	35494	4 PM	3.75	80	15.5	
9							
10							
11							
12	Atas Cr @ 3 Bridges	35440	4 PM	0	0		
13	Atas Cr @ 3 Bridges	35494	3 PM	0.4			
14							
15							
16							
17							
18							
19	Estrella River @ River Rd.	35493	DJ's 11:30 am	79	off scale	0.2	really!
20	Estrella River @ River Rd.	35493	4 PM (MARTI)	81	off scale	0.2	really!
21	Estrella River @ River Rd.	35494	11 am	36	500+	0.8	
22	Estrella River @ River Rd.	35495	9 am	43	1000+	0.3	
23							
24							
25							
26	Huerhuero Creek @ River Rd	35493	0.4375	22.5	1000+	0.3	
27	Huerhuero Creek @ River Rd	35494	0.4375	9.4		1	
28							
29							
30							
31							
32							
33							

	A	B	C	D	E	F	G
34	Salinas River @ Bradley Bridge	35494	0.35416667	28		0.6	
35							
36							
37							
38							
39							
40	Salinas River @ San Miguel Bridge	35493	0.53125	10		1	
41	Salinas River @ San Miguel Bridge	35494	10 am	3	400	3	
42							
43							
44							
45							
46							
47	Salinas River @ Paso Robles 13th	35493	12 pm	9	500+	2	
48							
49							
50							
51							
52	Salinas River below Atas Creek	35493	0.67708333	2	200	3	
53							
54							
55							
56							
57	Little Cholame Cr. @ Margy Bridge	35495	11 am	3.75	200	3	

Hi Angela,

Hope all is well with you. I received a notice requesting water quality information for the 303(d) listing. We're pretty swamped here and I don't think we'll be able to pull together our most recent data on the Salinas River (Karen Worcester is involved with this work), but I've attached a manuscript recently submitted to the journal Environmental Monitoring and Assessment. It documents work done from 9/98 to 1/00, and indicates widespread presence and toxicity of chlorpyrifos and diazinon in the lower Salinas River watershed. I've attached the text and tables, but didn't want to bog down your email with the figures. Let me know if you'd like the figures, too, and I'll send them.

The solicitation requested multiple hard copies and electronic versions, etc., but I thought I'd better get this off to you now. If I wait until I get a chance to hang out at the xerox machine, I might miss the May 15 deadline. Hopefully, this will serve as a placeholder to let you know the information is available, and you can contact me if you need more in other formats. Good luck with the listing process.

John W. Hunt  
Research Specialist  
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University of California, Davis

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Salinas HU  
309.00