

City of Salinas
Monitoring and Reporting Program
Scope and Budget

CITY OF SALINAS PERMIT REQUIREMENT

As indicated in **Attachment D** of the NPDES permit, the City of Salinas is required to conduct stormwater sampling in accordance with the permit's Monitoring and Reporting Program (MRP) section. The City of Salinas is required to carry out data collection and annual reporting over the five year term. Resources in FY21/FY22 will fund year five of the MRP and funds all aspects of data collection, pollutant analyses, data management and reporting.

CONTRACT OBJECTIVES:

- Perform and collect stormwater sample at designated urban outfalls (RD513, RD518, RD730, 309U19) for a minimum of three rain events.
 - Submit all samples in accordance with the QAPP
- Perform and collect stormwater sample collection at background receiving water sites (309GAB, 309NAD) at nine visits per year.
- Implement data collection effort at Cesar Chavez basin to perform a water budget to assess the water quality benefit to the City of Salinas.
- Compile all analytical, hydrology, and water quality data and synthesize into an annual report for the City to submit to the Regional Board.

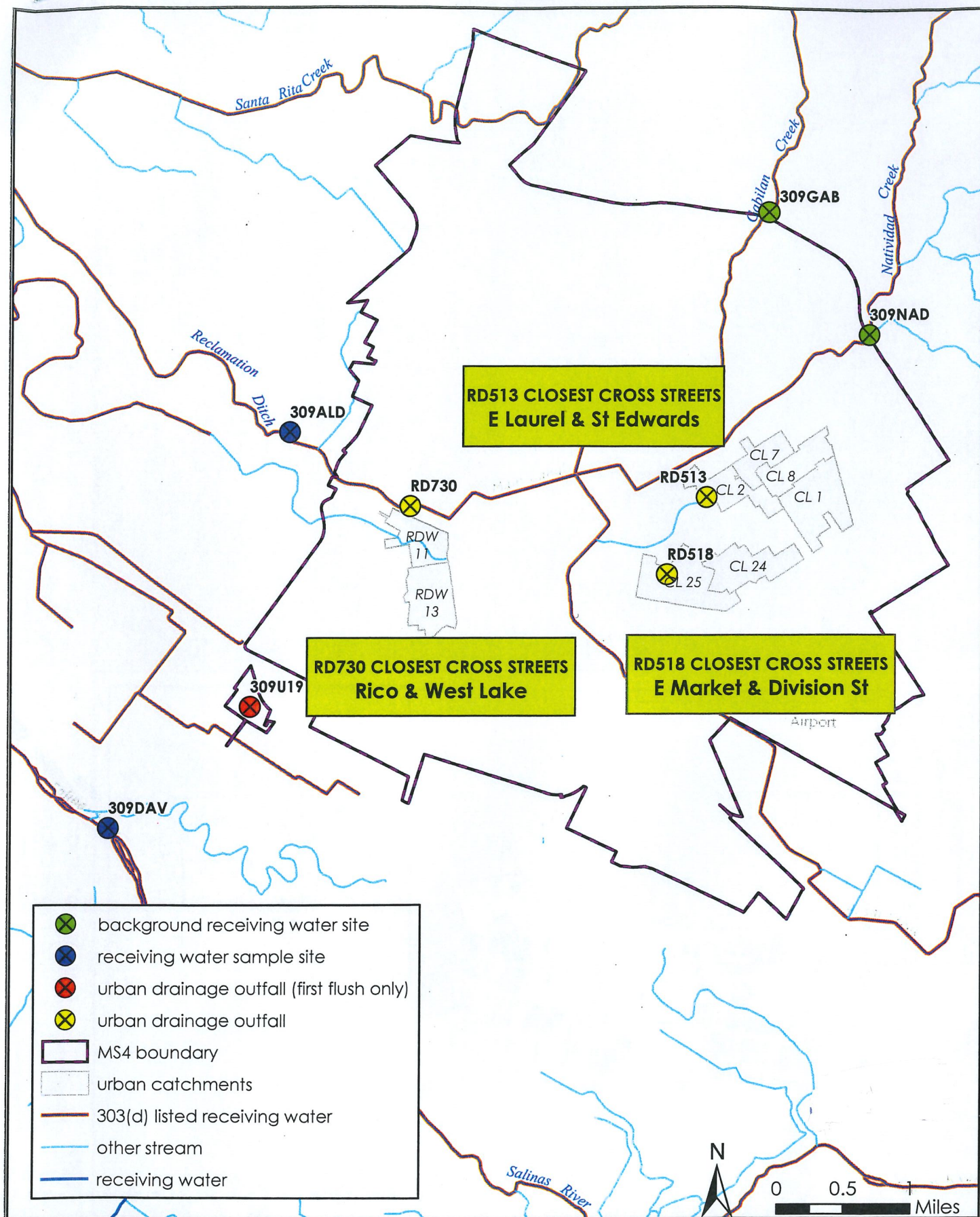
TASK SUMMARY:

Table 1. Task schedule of completion by permit year

Task	Description	Duration	YR 1	YR 2	YR 3	YR 4	YR 5
1	QAPP/ Mont Plan Development	Jun 1– Oct 15	✓				
	Design & Fabricate Samplers	Jun 1 – Oct 1	✓				
2	Outfall data collection	Oct 1 – Sep 30	✓	✓	✓	✓	✓
	Background data collection	Oct 1 – Sep 30	✓	✓	✓	✓	✓
	Receiving water data collection	Oct 1 – Sep 30				✓	
3	Data management & analysis	Oct 1 – Sep 30	✓	✓	✓	✓	✓
	Annual reporting*	Oct 1 – Jan 30	✓	✓	✓	✓	✓
4	Project Management	Oct 1 – Sep 30	✓	✓	✓	✓	✓

*Annual reports will be submitted by Jan 30 for the previous water year.

BUDGET:



City of Salinas Monitoring and Reporting Program - Monitoring Locations. Monitored outfalls that must be clear from encampments are labeled in yellow.

FIGURE 1

Parameter Groups		Traditional Water Quality Suite (Nutrients & Chemical)																		Metals						Organics	Water Toxicity	Bio Assessments	Sediment Analyte Suite													
Site Classification	Site ID	Photo Monitoring	Flow (cfs)	Precipitation	Temperature	Total Suspended Solids (TSS)		Total Dissolved Solids (TDS)		Turbidity	Fecal Coliform	pH	Conductivity	Dissolved Oxygen	Hardness	Total Ammonia	Unionized Ammonia	Total Nitrogen	Nitrate + Nitrite (as N)	Orthophosphate	Total Phosphorus (as P)	Total Arsenic	Total Cadmium	Total Copper	Total Lead	Total Nickel	Total Zinc	Dissolved Zinc	Pyrethroids	Flupronil	Imidacloprid	Hyalella Azteca (96-hr)	Chironomus dilutus (96-hr)	Benthic Invertebrate and Algae Bioassessment	Associated Habitat Assessment	Toxicity: Hyalella Azteca (10-day)	Pyrethroid Pesticides in Sediment	Sediment Grain Size	Total Organic Carbon			
Urban Drainage Outfall	RD730		I	W	I	P	P	P	P	P	P		P	P	P	P	P	P	P	P		P	P	P	P		P		C	C												
	RD513		I	W	I	P	P	P	P	P	P		P	P	P	P	P	P	P	P		P	P	P	P		P		C	C												
	RD518		I	W	I	P	P	P	P	P	P		P	P	P	P	P	P	P	P		P	P	P	P		P		C	C												
	309U19	F	F		F	G	F	F	G	F	F		G	G	G				G	G		G	G	G	G		G		G	G												
Receiving Water	309 ALD	F	F		F	G	F	F	G	F	F	F	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G		G	G	G	G	G	G	G	G	G	G	G	
	309DAV																																									
Background Receiving Water*	309GAB		F		F				G					G					G	G				G			G															
	309NAD		F		F				G					G					G	G				G			G															

* All analytes besides fecal coliform sampled and analyzed for CMP

Sample Type	
G	Grab Sample
C	Composite of Passive Samples
P	Passive sampler - discrete
I	Instrumentation
F	Field Measurement
W	Weather Station

Frequency Key	
	Annually; Continuous - instruments @ 10 min, weather precip in daily volume
	Annually; at least 3 rain events including first flush; up to 4 discrete samples per event
	Annually; First Flush only; up to 4 discrete samples per event at instrumented outfalls
	Yr 1 and Yr 5; First Flush only; Composite of up to 4 samples per event
	One yr only - monthly Oct - Apr (include 2 rain events: first flush event +1 other) and 2 dry months -July and Sep
	One year only - once in dry, once in wet season
	One year only - once in spring
	Annually; monthly Oct - Apr (include 2 rain events: first flush event +1 other) and 2 dry months -July and Sep



Monitoring and Reporting Program analyte schedule at all monitoring stations.

TABLE 1



Salinas Stormwater Monitoring Plan - Permit term 2017-2022

Year 5

	2NDNATURE Personnel						Pacific EcoRisk Personnel					Labor per Task
	Principal	Senior Scientist III	Senior Scientist II	Senior Scientist I	Fabrication/ Installation Expert	Science Associate I	Principal/ VP	Project Manager	Scientist II	Scientist I	Laboratory Assistant I	
	2N	2N	2N	2N	2N	2N	PE	PE	PE	PE	PE	
Hourly Rate	\$216	\$180	\$169	\$147	\$110	\$110	\$227	\$190	\$178	\$158	\$69	
# Personnel	1	3	2	2	2	4						
Task 2A.2. Data Collection												
Task 2A.2.1. Site maintenance and sample preparation	4	4	60		40	140						\$ 31,524
Task 2A.2.2. Event sampling at RD513; RD518; RD730	4	4	40			210						\$ 31,444
Task 2A.2.3. Cesar Chavez data collection and water budget	6	6	50	10	50	50						
Task 2A.2 subtotal												\$ 62,968
Task 2A	14	14	150	10	90	400	0	0	0	0	0	\$ 86,264
Task 2B. Receiving Water Monitoring and Data Collection												
Task 2B.2.2. Collect first flush grab samples at 309U19, 309GAB, 309NAD							1	3	10	10	1	\$ 4,226
Task 2B.2.3. Perform additional sample sed, bio, metals, organics and toxicity sampling at 309ALD, 309DAV (bio only)												\$ -
Task 2B.2 subtotal												\$ 4,226
Task 2B	0	0	0	0	0	0	1	3	10	10	1	\$ 4,226
Task 3A. Outfall Data Management, Analysis, and Reporting												
Task 3A.1. Data management and QA/QC	10	10	60			80						\$ 22,900
Task 3A.2. Analyze data and generate graphics	10	10	40			80						\$ 19,520
Task 3A.3. Format and upload data per SWAMP and CEDEN requirements				10		40						\$ 5,870
Task 3A.4. Prepare draft annual report	10	16	50			30						\$ 16,790
Task 3A.5. Revise and finalize annual report	8	10	20			10						\$ 8,008
Task 3A.6. Event reporting	2	8	30			40						\$ 11,342
Task 3A.7. Statistical Trend Analysis for all data and reporting	10	20	10									\$ 7,450
Task 3A.8. Data Analysis and Water Budget for Cesar Chavez	10	20	30			30						\$ 14,130
Task 3A	60	94	240	10	0	310	0	0	0	0	0	\$ 106,010
Task 3B. Receiving Water Data Management, Analysis, and Reporting												
Task 3B.1. Data management and QA/QC							1	2				\$ 607
Task 3B.2. Analyze data and generate graphics							1	2				\$ 607
Task 3B.3. Format and upload data per SWAMP and CEDEN requirements (field, toxicity, analytical)								2				\$ 380
Task 3B.4. Prepare draft annual report							4	20				\$ 4,708
Task 3B.5. Receiving water trend analysis							1	4				\$ 987
Task 3B.5. Revise and finalize annual report								1	2			\$ 546
Task 3B	0	0	0	0	0	0	7	31	2	0	0	\$ 7,835

Salinas Stormwater Monitoring Plan - Permit term 2017-2022

Year 5

2NDNATURE Personnel

Pacific EcoRisk Personnel

	Principal	Senior Scientist III	Senior Scientist II	Senior Scientist I	Fabrication/Installation Expert	Science Associate I	Principal/VP	Project Manager	Scientist II	Scientist I	Laboratory Assistant I	Labor per Task
	2N	2N	2N	2N	2N	2N	PE	PE	PE	PE	PE	
# Personnel	1	3	2	2	2	4						
Task 3B. Receiving Water Data Management, Analysis, and Reporting												
Task 3B.1. Data management and QA/QC							1	2				\$ 607
Task 3B.2. Analyze data and generate graphics							1	2				\$ 607
Task 3B.3. Format and upload data per SWAMP and CEDEN requirements (field, toxicity, analytical)								2				\$ 380
Task 3B.4. Prepare draft annual report							4	20				\$ 4,708
Task 3B.5. Receiving water trend analysis							1	4				\$ 987
Task 3B.5. Revise and finalize annual report								1	2			\$ 546
Task 3B	0	0	0	0	0	0	7	31	2	0	0	\$ 7,835
Task 4. Project Management												
Task 4.1. Project Management	12	6	20			6	8	6				\$ 10,668
Task 4.2. Regional Meetings and Coordination	2		4				5					\$ 2,243
Task 4	14	6	24	0	0	6	13	6	0	0	0	\$ 12,911
Total hours	88	114	414	20	90	716	21	40	12	10	1	
Cost per staff	\$ 19,008	\$ 20,520	\$ 69,966	\$ 2,940	\$ 9,900	\$ 78,760	\$ 4,767	\$ 7,600	\$ 2,136	\$ 1,580	\$ 69	

2NDNATURE: \$ 201,094

Pacific EcoRisk \$ 16,152

Fully burdened labor \$ 217,246

Additional expenses

Task 2.A.1 Stage recorders	\$ 7,500
Task 2.A.1.3 Raw materials for site security	
Task 2.A.2. 2 Weather Forecasting Service	\$ 5,958
Task 2.A.2 Outfall Sampling: Analytical Laboratory Costs	\$ 10,560
Task 2.B.2 Receiving Water Sampling: Analytical Laboratory Costs	\$ -
Task 2.B.2 Background Receiving Water Sampling: Analytical Laboratory Costs	\$ 660
Task 2. Miscellaneous Equipment	\$ 3,584
total expenses	\$ 28,262
10% markup expenses	\$ 2,826
10% markup subcontractor	\$ 1,615

Total Annual Cost**\$ 250,000**