
City of Salinas
Monitoring and Reporting Program WY23/24
Scope and Budget

DESCRIPTION & PERMIT REQUIREMENT

The City of Salinas is required to perform a Monitoring and Reporting Program (MRP) as indicated in **Section K** and **Attachment D** of the NPDES permit. The current MRP was adopted in July 2017 and is in its sixth monitoring year. The City will continue with the current MRP program for a seventh monitoring season, while a redesigned MRP is refined and approved by the Water Board. Resources under this scope will therefore support the monitoring and reporting program under the current and approved MRP. This monitoring includes continuous hydrology measurements and water quality stormwater sample collection at three urban drainage outfalls to directly sample and better understand the stormwater volume and pollutant loads generated from the City and discharged to regulated receiving waters. Water quality samples are collected at Gabilan and Natividad upstream of the Salinas MS4 boundary to determine water quality conditions associated with upstream drainages. All data collected will be managed, reviewed, synthesized, and summarized in annual report.

CONTRACT OBJECTIVES:

- Coordinate all stakeholders and consultants to effectively monitor stormwater to meet permit compliance including field sampling teams at urban outfalls, receiving waters, and analytical laboratories.
- Perform and collect stormwater samples at designated urban outfalls for a minimum of three rain events.
- Perform and collect stormwater samples at background receiving water sites and receiving water site at nine visits per year.
- Compile all analytical, hydrology, and water quality data and synthesize into an annual report for the City to submit to the Regional Board.

BUDGET: \$250,000

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	Fipronil	Imidacloprid	Hyalella Azteca (96-hr)	Chironomus dilutus (96-hr)	Benthic Invertebrate and Algae	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	C	C													
	RD513		I	W	I	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	C	C													
	309U19	F	F	W	F	G	F	F	G	F	F	F	G	G	G	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		
	309DAV																																							
Background Receiving Water*	309GAB		F		F	F	F	F	G	F	F	F	G	G	G		G	G	G	G	G	G		G																
	309NAD		F		F	F	F	F	G	F	F	F	G	G	G		G	G	G	G	G			G																

* All analytes but fecal coliform will be sampled and analyzed under the CMP program. The MRP addresses sampling and analysis for fecal coliform and First Flush analytes.

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 @ 60 min 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
	Annually; First Flush Only



Monitoring and Reporting Program analyte schedule at all monitoring stations.

TABLE 1

Salinas Stormwater Monitoring Plan - Year 7

Year 7

2NDNATURE Personnel

Pacific EcoRisk Personnel

	2NDNATURE Personnel					Pacific EcoRisk Personnel					Labor per Task
	Principal	Research Director	Senior Scientist III	Senior Scientist I	Science Associate I	Principal/VP	Project Manager	Scientist II	Scientist I	Laboratory Assistant I	
	2N	2N	2N	2N	2N	PE	PE	PE	PE	PE	
Hourly Rate	\$243	\$203	\$190	\$153	\$110	\$245	\$205	\$178	\$170	\$69	
Task 2A. Outfall Monitoring and Data Collection											
Task 2A.2. Data Collection											
Task 2A.2.1. Site maintenance and sample preparation	4	12	20	10	160						\$ 26,338
Task 2A.2.2. Event sampling at RD513; RD518; RD730; 309U19	4	12	20	10	200						\$ 30,738
Task 2A	8	24	40	20	360	0	0	0	0	0	\$ 57,076
Task 2B. Receiving Water Monitoring and Data Collection											
Task 2B.2.1. Perform monthly sampling (Oct - Apr, Jul & Sep) at GAB&NAD						5	10	24	24	10	\$ 12,317
Task 2B.2.2. Collect first flush grab samples at 309U19, 309GAB, 309NAD						1	3	10	10	0	\$ 4,340
Task 2B	0	0	0	0	0	6	13	34	34	10	\$ 16,657
Task 3A. Outfall Data Management, Analysis, and Reporting											
Task 3A.1. Data management and QA/QC	10	10	20	30	40						\$ 17,250
Task 3A.2. Analyze data and generate graphics	10	10	20	40	40						\$ 18,780
Task 3A.3. Format and upload data per SWAMP and CEDEN requirements					30						\$ 3,300
Task 3A.4. Prepare draft annual report	10	20	30	50	40						\$ 24,240
Task 3A.5. Revise and finalize annual report	4	10	20	40	20						\$ 15,122
Task 3A.6. Event reporting		8	24	40	40						\$ 16,704
Task 3A.7. Statistical Trend Analysis for all data and reporting	10	20	20	10	40						\$ 16,220
Task 3A	44	78	134	210	250	0	0	0	0	0	\$ 111,616
Task 3B. Receiving Water Data Management, Analysis, and Reporting											
Task 3B.1. Data management and QA/QC						1	2				\$ 655
Task 3B.2. Analyze data and generate graphics						1	2				\$ 655
Task 3B.3. Format and upload data per SWAMP and CEDEN requirements (field, toxicity, analytical)							2				\$ 410
Task 3B.4. Prepare draft annual report						4	20				\$ 5,080
Task 3B.5. Receiving water trend analysis						1	4				\$ 1,065
Task 3B.5. Revise and finalize annual report							1	2			\$ 561
Task 3B	0	0	0	0	0	7	31	2	0	0	\$ 8,426
Task 4. Project Management											
Task 4.1. Project Management	12	6	6	30	6	8	6				\$ 13,714
Task 4.2. Regional Meetings and Coordination			4	10		5					\$ 3,515
Task 4	12	6	10	40	6	13	6	0	0	0	\$ 17,229
Total hours	64	108	184	270	616	26	50	36	34	10	
Cost per staff	\$ 15,552	\$ 21,924	\$ 34,960	\$ 41,310	\$ 67,760	\$ 6,370	\$ 10,250	\$ 6,408	\$ 5,780	\$ 690	

2NDNATURE: \$ 181,506

Pacific EcoRisk \$ 29,498

Fully burdened labor \$ 211,004

Additional expenses:

	Task 2.A.1 Stage recorders	\$ 2,185
	Task 2.A.1.3 Raw materials for site security	
	Task 2.A.2. 2 Weather Forecasting Service	
	Task 2.A.2 Outfall Sampling: Analytical Laboratory Costs	\$ 25,000
	Task 2.B.2 Receiving Water Sampling: Analytical Laboratory Costs	\$ -
	Task 2.B.2 Background Receiving Water Sampling: Analytical Laboratory Costs	\$ 2,000
	Task 2. Miscellaneous Equipment	\$ 3,584
	total expenses	\$ 32,769
	10% markup expenses	\$ 3,277
	10% markup subcontractor	\$ 2,950

Total Annual Cost \$ 250,000