

June 24, 2019

VIA EMAIL: heidin@ci.salinas.ca.us

Heidi Niggemeyer
Salinas – Department of Public Works
200 Lincoln Avenue
Salinas, CA 93901

Re: City of Salinas: MRP Water Quality Monitoring WY2020 (Year 3)

Dear Heidi,

2NDNATURE is pleased to submit a scope of work to the City of Salinas to perform stormwater monitoring and reporting to meet requirements outlined by the Central Coast Regional Water Quality Control Board (CCRWQCB) Monitoring and Reporting Program (MRP) to satisfy the Phase I NPDES Municipal Stormwater Permit (Order # R3-2012-0005; Permit # CA0049981). Water Year 2020 (WY20) is the third year 2NDNATURE will partner with Salinas and Pacific EcoRisk (PER) to conduct outfall and receiving water monitoring as designated in the MRP.

This scope provides resources for 2NDNATURE and PER to perform the required data collection and reporting at outfalls and background receiving waters in year 3. Outfall monitoring and background receiving water monitoring are required each year in the permit term. Table 1 outlines a general task schedule by permit year, as well as the task duration with the year. Specific information on the data collection efforts and frequency at each monitoring station can be found in the QAPP.

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.

2NDNATURE appreciates the opportunity continue to work with and support the City of Salinas to build local capacity toward a more effective and compliant stormwater program. The purpose and scope of these tasks is outlined below with a line item budget included for your review.

Sincerely,



Nicole Beck, PhD
CEO
nicole@2ndnaturewater.com

City of Salinas
MRP Water Quality Monitoring WY20
Scope and Budget

Task 1. QAPP & Monitoring Plan Development

In May 2019, the CCRWQCB approved a revised QAPP. No additional revisions or edits are expected in year 3, and Task 1 is omitted from the line item budget.

Task 2A. Outfall Monitoring Updates and Data Collection

Structural, safety, and access updates are needed at outfall RD513, RD518, RD730 to facilitate data collection efforts at the start of WY20. This task provides time and materials to buy the necessary equipment and coordinate the required updates at all three outfalls. Task 2A also provides resources to prepare for sample events, maintain continuous stage recorders, and perform outfall sampling at all 3 outfall sites (RD513, RD518, RD730) and the pump station (309U19). These sites will be sampled for the first flush runoff event and up to 4 additional rain event occasions each year, in accordance with the QAPP. Additional rain events (>5 events) may be sampled in WY20, depending on the analytical and labor budget available. 2NDNATURE will utilize a professional weather forecasting service to monitor storm patterns and collaborate with regional partners to determine the regional first flush monitoring event annually. At each sample event, field staff will coordinate with analytical laboratory to obtain the appropriate sterilized sample bottles and prepare chambers with passive samplers and bottles. Samples will be retrieved after flows recede and the sample chamber is accessible to field personnel. All water samples will be processed and labeled per the QAPP and delivered to MBAS for analysis. Stage recorders and remote telemetry units will be regularly maintained, and continuous hydrology data will be uploaded quarterly and QA/QC'ed.

Task 2B. Receiving Water Monitoring Update and Data Collection

Pacific EcoRisk (PER) will lead the receiving water monitoring tasks that will require collaboration with regional partners to ensure sampling schedules align on monthly and annual time frames over the permit term. Pacific EcoRisk will perform first flush grab sampling at these stations and submit samples to MBAS for analysis for the contaminants listed in the QAPP. Under the CMP program, nine monthly samples are collected (Oct -Apr, and 2 months in Jul – Sep) at upstream sites 309GAB and by PER. Resources are allocated in this budget to allow sampling preparation, site visit and grab sample collection, submission to the laboratory and to cover the analytical cost for all analytes at the first flush and adds fecal coliform for all additional sampled events.

Task 3A. Outfall Data Management, Analysis, and Reporting

2NDNATURE will manage, analyze and report all data (precipitation, discharge and analytical) in the final annual report. This task includes resources to cover ongoing data from precipitation, event analytical results, and data management from the continuous stage recorders at 3 outfalls over the course of monitoring. Following each sampling event, 2NDNATURE field staff will summarize the field effort with individual event reports. Event reports will be submitted to the City within 2 weeks of receiving analytical results, and will include tables with all sites monitored, analytical results, and will indicate any constituent that experienced exceedances relative to the outlined water quality objectives. Following the rainy season, all event data will be analyzed, and appropriate graphics will be made to characterize annual runoff volumes and pollutant loads discharged at RD513, RD518 and RD730. 2NDNATURE will lead the development of site-specific draft annual reports that will include a

summary of the event and annual hydrology and pollutant loading at each outfall site for submission to the City.

Task 3B. Receiving Water Management, Analysis, and Reporting

PER will manage and QAQC all receiving water data collected in WY20. Following background receiving water data collection, PER will generate and submit event reports, which will include tables with all sites monitored, analytical results, and indicate any constituent that experienced exceedances relative to the outlined water quality objectives. PER will analyze and generate requested data graphics for receiving water datasets as necessary for inclusion into annual reports. Annual reports will include a summary of monitoring program, annual sampling frequency and data results.

Task 4. Project Management

Project management hours are allocated to ensure proper communication and coordination is sustained between the City, PER, CCRWQCB, stakeholders, and 2NDNATURE throughout the monitoring effort.

Deliverable Schedule

Task 1. QAPP & Monitoring Plan Development

Schedule: n/a a revised QAPP was approved May 2019.

Task 2A. Outfall Monitoring Update and Data Collection

Schedule: Outfall safety, accessibility, and technology updates – completed by Oct 1 2019

Schedule: Data collection – Ongoing; Oct 1 2019 – Sept 30 2020

Task 2B. Receiving Water Monitoring Update and Data Collection

Schedule: Ongoing; Oct 1 2019 – Sept 30 2020

Task 3A. Outfall Data Management, Analysis, and Reporting

Schedule: Data Management; CEDEN uploads, & Event Reporting – Ongoing; Oct 1 2019 – Sept 30 2020

Schedule: Data Analysis and Draft Annual Report; July 1 2020– Dec 1 2020

Schedule: Final Annual Report; January 31 2021

Task 3B. Receiving Water Management, Analysis, and Reporting

Schedule: Data Management; CEDEN uploads, & Event Reporting – Ongoing; Oct 1 2019 – Sept 30 2020

Schedule: Data Analysis and Draft Annual Report; July 1 2020– Dec 1 2020

Schedule: Final Annual Report; January 31 2021

Task 4. Project Management

Schedule: Ongoing; Contract inception – January 2021



Salinas Stormwater Monitoring Plan - Permit term 2017-2022

Year 3 FY19/20 - WY20

2NDNATURE Personnel

Pacific EcoRisk Personnel

	Principal	Senior Scientist III	Senior Scientist I	Science Associate III	Fabrication/ Installation Expert	Science Associate II	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	
Hourly Rate	\$208	\$174	\$141	\$125	\$98	\$110	\$241	\$179	\$168	\$149	\$65	
# Personnel	1	3	2	2	2	2						
Task 2A. Outfall Monitoring Updates and Data Collection												
Task 2A.1. Update outfalls with remote technology and site safety												
Task 2A.1.1 Design and fabricate sampling stations with updated telemetry units			10		30	10						\$ 5,450
Task 2A.1.2 Improve site access and safety			15		10	10						\$ 4,195
												Task 2.A.1 subtotal \$ 9,645
Task 2A.2. Data Collection												
Task 2A.2.1. Site maintenance and sample preparation	4	10	80		20	100						\$ 26,812
Task 2A.2.2. Event sampling at RD513; RD518; RD730; RD309	4	10	40			240						\$ 34,612
												Task 2.A.2 subtotal \$ 61,424
Task 2A	8	20	145	0	60	360	0	0	0	0	0	\$ 71,069
Task 2B. Receiving Water Monitoring and Data Collection												
Task 2B.1. Coordinate sample schedule with regional partners												
Task 2B.1.1. Coordinate RW sampling schedule between CCAMP and the Ag Coop												\$ -
Task 2B.1.2. Collaborate with City and Ag Coop to collect and submit fecal coliform with CMP program												\$ -
Task 2B.2. Data Collection												
Task 2B.2.1. Perform monthly sampling (Oct - Apr, Jul & Sep) at 309ALD												\$ -
Task 2B.2.2. Collect first flush grab samples at 309GAB, 309NAD							1	3	10	10	1	\$ 4,013
Task 2B.2.3. Perform additional sample sed, bio, metals, organics and toxicity sampling at 309ALD, 309DAY (bio only)												\$ -
												Task 2.B.2 subtotal \$ 4,013
Task 2B Cost	0	0	0	0	0	0	1	3	10	10	1	\$ 4,013
Task 3A. Outfall Data Management, Analysis, and Reporting												
Task 3A.1. Data management and QA/QC	4	16	40	80		40						\$ 23,656
Task 3A.2. Analyze data and generate graphics	4	20	40	80		20						\$ 22,152
Task 3A.3. Format and upload data per SWAMP and CEDEN requirements			20	40		24						\$ 10,460
Task 3A.4. Prepare draft annual report	20	30	50	40		12						\$ 22,750
Task 3A.5. Revise and finalize annual report	8	10	20	20								\$ 8,724
Task 3A.6. Event reporting	2	8	20	10								\$ 5,878
Task 3A	38	84	190	270	0	96	0	0	0	0	0	\$ 93,620

Salinas Stormwater Monitoring Plan - Permit term 2017-2022

Year 3 FY19/20 - WY20

2NDNATURE Personnel

Pacific EcoRisk Personnel

	Principal	Senior Scientist III	Senior Scientist I	Science Associate III	Fabrication/Installation Expert	Science Associate II	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	
Hourly Rate	\$208	\$174	\$141	\$125	\$98	\$110	\$241	\$179	\$168	\$149	\$65	
# Personnel	1	3	2	2	2	2						

Task 3B. Receiving Water Data Management, Analysis, and Reporting

Task 3B.1. Data management and QA/QC							1	2				\$ 599
Task 3B.2. Analyze data and generate graphics							1	2				\$ 599
Task 3B.3. Format and upload data per SWAMP and CEDEN requirements (field, toxicity, analytical)								2				\$ 358
Task 3B.4. Prepare draft annual report							4	20				\$ 4,544
Task 3B.5. Revise and finalize annual report							1	4				\$ 957
Task 3B.6. Generate and populate field/habitat EDD for each event								1	2			\$ 515
Task 3B.7. Generate and populate toxicity EDD												\$ -
Task 3B.8. Event field log preparation								5				\$ 895
Task 3B.9. Post-event water quality exceedance e-mail								3				\$ 448
Task 3B.10. Event monitoring report (draft)									3			\$ 504
Task 3B.11. Event monitoring report (review)								3				\$ 448
Task 3B Cost	0	0	0	0	0	0	7	41	5	0	0	\$ 9,866

Task 4. Project Management

Task 4.1. Project Management	20	6	36			12	12	6				\$ 15,566
Task 4.2. Regional Meetings and Coordination	2		4				5					\$ 2,185
Task 4	22	6	40	0	0	12	17	6	0	0	0	\$ 17,751

Total hours	68	110	375	270	60	468	25	50	15	10	1	
Cost per staff	\$ 14,144	\$ 19,140	\$ 52,875	\$ 33,750	\$ 5,880	\$ 51,480	\$ 6,025	\$ 8,950	\$ 2,520	\$ 1,490	\$ 65	

LABOR 2NDNATURE: \$ 177,269

Pacific EcoRisk \$ 19,050

Fully burdened labor \$ 196,319

Additional expenses

Task 2.A.1 Materials to fabricate housing to install remote access updates	\$ 12,000
Task 2.A.2. 2 Weather Forecasting Service	\$ 3,972
Task 2.A.2 Outfall Sampling: Analytical Laboratory Costs	\$ 10,000
Task 2.B.2 Background Receiving Water Sampling: Analytical Laboratory Costs	\$ 1,285
Task 2.A. False Start and Equipment Contingency	\$ 5,000
Misc Equip and material costs	\$ 3,500

total expenses	\$ 35,757
10% markup expenses	\$ 3,576
10% markup subcontractor	\$ 1,905

Total Annual Cost \$ 237,557