

CONTRACT
FOR SERVICES BETWEEN
THE CITY OF SALINAS
AND
2NDNATURE, LLC



City of Salinas

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Professional Services Agreement
2ndNature LLC
9/19/17

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**AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN
THE CITY OF SALINAS AND 2NDNATURE, LLC.**

This Agreement for Professional Services (the "Agreement") is made and entered into this 19th day of September, 2017, by and between the **CITY OF SALINAS**, a California Charter city and municipal corporation (hereinafter "City"), and **2NDNATURE, LLC**, a Limited Liability Company, (hereinafter "Consultant").

RECITALS

WHEREAS, Consultant represents that it is specially trained, experienced, and competent to perform the special services which will be required by this Agreement; and

WHEREAS, Consultant is willing to render such professional services, as hereinafter defined, on the following terms and conditions.

NOW, THEREFORE, City and Consultant agree as follows:

TERMS

1. **Scope of Service.** The project contemplated and the scope of Consultant's services are described in Exhibit A, attached hereto and incorporated herein by reference.
2. **Term; Completion Schedule.** This Agreement shall commence on September 19, 2017, and shall terminate on January 30, 2019, unless extended in writing upon the mutual written consent of the parties and may be terminated only pursuant to the terms of this Agreement.
3. **Compensation.** City hereby agrees to pay Consultant for services rendered the City pursuant to this Agreement on a time and materials basis according to the rates of compensation set forth in Exhibit A. The total amount of compensation to be paid under this Agreement shall not exceed **One hundred seventy-eight thousand, four hundred eighty-one dollars (\$178,481)**.
4. **Billing.** Consultant shall submit to City an itemized invoice, prepared in a form satisfactory to City, describing its services and costs for the period covered by the invoice. Except as specifically authorized by City, Consultant shall not bill City for duplicate services performed by more than one person. Consultant's bills shall include the following information to which such services cost or pertain:
 - a. A brief description of services performed;
 - b. The date the services were performed;
 - c. The number of hours spent and by whom;
 - d. A brief description of any costs incurred; and
 - e. The Consultant's signature.

Any such invoices shall be in full accord with any and all applicable provisions of this Agreement.

City shall make payment on each such invoice within thirty (30) days of receipt; provided, however, that if Consultant submits an invoice which is incorrect, incomplete, or not in accord with the provisions of this Agreement, City shall not be obligated to process any payment to Consultant until thirty (30) days after a correct and complying invoice has been submitted by Consultant. The City shall process undisputed portion immediately.

5. Additional Copies. If City requires additional copies of reports, or any other material which Consultant is required to furnish as part of the services under this Agreement, Consultant shall provide such additional copies as are requested, and City shall compensate Consultant for the actual costs related to the production of such copies by Consultant.

6. Responsibility of Consultant.

By executing this Agreement, Consultant agrees that the services to be provided and work to be performed under this Agreement shall be performed in a fully competent manner. By executing this Agreement, Consultant further agrees and represents to City that the Consultant possesses, or shall arrange to secure from others, all of the necessary professional capabilities, experience, resources, and facilities necessary to provide the City the services contemplated under this Agreement and that City relies upon the professional skills of Consultant to do and perform Consultant's work. Consultant further agrees and represents that Consultant shall follow the current, generally accepted practices in this area to the profession to make findings, render opinions, prepare factual presentations, and provide professional advice and recommendations regarding the projects for which the services are rendered under this Agreement.

7. Responsibility of City. To the extent appropriate to the projects to be completed by Consultant pursuant to this Agreement, City shall:

(A) Assist Consultant by placing at its disposal all available information pertinent to the projects, including but not limited to, previous reports and any other data relative to the projects. Nothing contained herein shall obligate City to incur any expense in connection with completion of studies or acquisition of information not otherwise in the possession of City.

(B) Examine all studies, reports, sketches, drawings, specifications, proposals, and other documents presented by Consultant, and render verbally or in writing as may be appropriate, decisions pertaining thereto within a reasonable time so as not to delay the services of Consultant.

(C) Gary Petersen, Public Works Director shall act as City's representative with respect to the work to be performed under this Agreement. Such person shall have the complete authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to materials, equipment, elements, and systems pertinent to Consultant's services. City may unilaterally change its representative upon notice to the Consultant.

(D) Give prompt written notice to Consultant whenever City observes or otherwise becomes aware of any defect in a project.

8. Acceptance of Work Not a Release. Acceptance by the City of the work to be performed under this Agreement does not operate as a release of Consultant from professional responsibility for the work performed.

9. Indemnification and Hold Harmless.

Consultant shall indemnify, defend, and hold City and its officers, employees, and agents harmless from and against any and all liability, claims, suits, actions, damages, and causes of action arising out of any personal injury, bodily injury, loss of life, or damage to any property, or violation of any relevant federal, state or municipal law or ordinance, or other cause in connection with the negligent, recklessness or intentional acts or omission of Consultant, its employees, subcontractors or agents, or on account of the performance or character of the work, except for any such claim arising from (i) the negligence or willful misconduct of the City, its officers, employees or agents (ii) any damages associated with the installation, use, operation, or placement of materials completed in Exhibit A. Acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages. The obligations set forth in this section shall survive the expiration or earlier termination of this Agreement.

10. Insurance.

(A) Consultant shall, throughout the duration of this Agreement, maintain comprehensive general liability and property insurance covering all operations of the Consultant, its agents and employees, performed in connection with this Agreement including but not limited to premises and automobile.

(B) Consultant shall maintain the following limits:

General Liability – Consultant shall at all times during the term of this Agreement maintain in effect a policy or policies having an A.M. Best rating of A-Class VIII or better for bodily injury liability, personal injury, advertising injury and property damage, including product liability insurance with limits on the Declarations page but not less than One Million and 00/100 Dollars (\$1,000,000) per occurrence and Two Million and 00/100 (\$2,000,000) in the general aggregate and products/completed operations aggregate insuring against any and all liability of the insured with respect to premises and products/completed operations. Liability coverage shall also include coverage for underground work and/or construction performed (if applicable). The coverage afforded to the additional insureds under Consultant's policy shall be primary insurance and non-contributory. If coverage is on a claims-made basis, the Consultant shall maintain "tail coverage" no less than ten (10) years after the expiration date of the policy or policies. Any policy or policies carrying a deductible more than \$25,000.00 may be subject to review by the City of the Consultant's financials.

Auto Liability – Consultant shall provide limits on the Declarations page but not less than One Million and 00/100 (\$1,000,000) combined single limit for bodily injury and property damage having an A.M. Best rating of A Class VIII or better. Automobile Liability Symbol 1 (any auto), if the Company owns automobiles. An entity without autos shall have “Non-owned and Hired” coverage (Auto Symbols 8 & 9). The City and its elected and appointed officers, boards, commissions, agents and employees shall be named as Additional Insureds.

Workers’ Compensation – In the event the Consultant hires employees, the Consultant shall provide Workers’ Compensation Insurance sufficient to meet its statutory obligation and to provide benefits for employees with claims of bodily injury or occupational disease (including resulting death) as required by the State of California and Employer’s Liability Insurance for One Million and 00/100 Dollars (\$1,000,000). Waiver of Subrogation for Workers’ Compensation in favor of the City of Salinas is required.

Professional Liability – Consultant shall provide limits on the Declarations Page but not less than One Million and 00/100 Dollars (\$1,000,000) per occurrence and One Million and 00/100 (\$1,000,000) in the aggregate having an A.M. Best rating of A-Class VIII or better.

(C) All insurance companies with the exception of “Worker’s Compensation” and “professional errors and omissions” affording coverage to the Consultant shall be required to add the City of Salinas, its officers, and, agents as additional “insured” by endorsement under the insurance policy and shall stipulate that this insurance policy will operate as primary insured for the work performed under this Agreement and that no other insurance affected by the City or other named insured will be called upon to contribute to a loss covered thereunder. The policy shall contain no special limitations on the scope of protection afforded to City, its officers, employees or agents.

(D) All insurance companies affording coverage to Consultant shall be insurance organizations authorized by the Insurance Commissioner to transact the business of insurance in the State of California.

(E) All insurance companies affording coverage shall provide ten (10) days written notice by certified mail to the City of Salinas should the policy be canceled or reduced in coverage before the expiration date. For the purpose of this notice requirement, any material change prior to expiration shall be considered cancellation.

(F) Consultant shall provide evidence of compliance with the insurance requirements listed above by providing a certificate of insurance, in a form satisfactory to the City, concurrently with the submittal of this Agreement. A statement on the insurance certificate which states that the insurance company “will endeavor” to notify the certificate holder, “but failure to mail such notice shall impose no obligation or liability of any kind upon the Consultant, its agents or representatives” does not satisfy the requirements of this subsection. The Consultant shall ensure that the authorized representative of the insurance company strikes the above quoted language from the certificate.

(G) Consultant shall provide a substitute certificate of insurance no later than ten (10) days prior to the policy expiration date. Failure by the Consultant to provide such a substitution and extend the policy expiration date shall be considered default by Consultant. In the event Consultant is unable to provide a substitute certificate of insurance within the time prescribed in this subsection, Consultant shall provide written confirmation of renewal, in a form satisfactory to the City, to act as proof of insurance only until such time as a certificate of insurance has been received by the City.

(H) Maintenance of insurance by the Consultant as specified in this Agreement shall in no way be interpreted as relieving the Consultant of any responsibility whatever and the Consultant may carry, at its own expense, such additional insurance as it deems necessary.

11. Access to Records. Consultant shall maintain all preparatory books, records, documents, accounting ledgers, and similar materials including but not limited to calculation and survey notes relating to work performed for the City under this Agreement on file for at least three (3) years following the date of final payment to Consultant by City. Any duly authorized representative(s) of City shall have access to such records for the purpose of inspection, audit, and copying at reasonable times during Consultant's usual and customary business hours. Consultant shall provide proper facilities to City's representative(s) for such access and inspection.

12. Assignment. It is recognized by the parties hereto that a substantial inducement to City for entering into this Agreement was, and is, the professional reputation and competence of Consultant. This Agreement is personal to Consultant and shall not be assigned by it without express written approval of the City.

13. Changes to Scope of Work. City may at any time, and upon a minimum of ten (10) days written notice, seek to modify the scope of services to be provided for any project to be completed under this Agreement. Consultant shall, upon receipt of said notice, determine the impact on both time and compensation of such change in scope and notify City in writing. Rate of compensation shall be based upon the Consultant's rates shown in Exhibit A of this Agreement. Upon agreement between City and Consultant as to the extent of said impacts to time and compensation, an amendment to this Agreement shall be prepared describing such changes. Execution of the amendment by City and Consultant shall constitute the Consultant's notice to proceed with the changed scope.

14. Ownership of Materials. Title to all final materials and documents, including drawings, specifications, data, reports, summaries, correspondence, photographs, computer software (if purchased on the City's behalf), outfall monitoring stations, video and audio tapes, software output, and any other materials with respect to work performed under this Agreement shall vest with City at such time as City has compensated Consultant, as provided herein, for the services rendered by Consultant in connection with which they were prepared. City agrees to hold harmless and indemnify the Consultant against all damages, claims, lawsuits, and losses of any kind including defense costs arising out of any use of said materials and documents, drawings, outfall monitoring stations and/or specifications on any other project without written authorization of the Consultant.

15. Termination.

(A) City shall have the authority to terminate this Agreement, upon written notice to Consultant, as follows:

(1) If in the City's opinion the conduct of the Consultant is such that the interest of the City may be impaired or prejudiced, or

(2) For any reason whatsoever.

(B) Upon termination, Consultant shall be entitled to payment of such amount as fairly compensates Consultant for all work satisfactorily performed up to the date of termination based upon the Consultant's rates shown in Exhibit A, except that:

(1) In the event of termination by the City for Consultant's default, City shall deduct from the amount due Consultant the total amount of additional expenses incurred by City as a result of such default. Such deduction from amounts due Consultant are made to compensate City for its actual additional costs incurred in securing satisfactory performance of the terms of this Agreement, including but not limited to, costs of engaging another consultant(s) for such purposes. In the event that such additional expenses shall exceed amounts otherwise due and payable to Consultant hereunder, Consultant shall pay City the full amount of such expense.

(C) In the event that this Agreement is terminated by City for any reason, Consultant shall:

(1) Upon receipt of written notice of such termination promptly cease all services on this project, unless otherwise directed by City; and

(2) Deliver to City all documents, data, reports, summaries, correspondence, photographs, computer software output, video and audio tapes, and any other materials provided to Consultant or prepared by or for Consultant or the City in connection with this Agreement. Such material is to be delivered to City in completed form; however, notwithstanding the provisions of Section 15 herein, City may condition payment for services rendered to the date of termination upon Consultant's delivery to the City of such material.

(D) In the event that this Agreement is terminated by City for any reason, City is hereby expressly permitted to assume the projects and complete them by any means, including but not limited to, an agreement with another party.

(E) The rights and remedy of the City and Consultant provided under this Section are not exclusive and are in addition to any other rights and remedies provided by law or appearing in any other section of this Agreement.

16. Compliance with Laws, Rules, and Regulations. Services performed by Consultant pursuant to this Agreement shall be performed in accordance and full compliance with all applicable federal, state, and City laws and any rules or regulations promulgated thereunder.

17. Exhibits Incorporated. All exhibits referred to in this Agreement and attached to it are hereby incorporated in it by this reference. In the event there is a conflict between and of the terms of this Agreement and any of the terms of any exhibit to the Agreement, the terms of the Agreement shall control the respective duties and liabilities of the parties.

18. Independent Contractor. It is expressly understood and agreed by both parties that Consultant, while engaged in carrying out and complying with any of the terms and conditions of this Agreement, is an independent contractor and not an employee of the City. Consultant expressly warrants not to represent, at any time or in any manner, that Consultant is an employee or servant of the City.

19. Integration and Agreement. This Agreement represents the entire understanding of City and Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters contained herein. This Agreement may not be modified or altered except by amendment in writing signed by both parties.

20. Jurisdiction. This Agreement shall be administered and interpreted under the laws of the State of California. Jurisdiction of litigation arising from this Agreement shall be in the State of California, in the County of Monterey or in the appropriate federal court with jurisdiction over the matter.

21. Severability. If any part of this Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of the Agreement shall continue to be in full force and effect.

22. Notices.

(A) Written notices to the City hereunder shall, until further notice by City, be addressed to:

Public Works Director
City of Salinas
200 Lincoln Avenue
Salinas, California 93901

With a copy to:

City Attorney
City of Salinas
200 Lincoln Avenue
Salinas, California 93901

(A) Written notices to the Consultant shall, until further notice by the Consultant, be addressed to:

Nicole G. Beck
Principal
2nd Nature, LLC
500 Seabright Ave, Suite 205
Santa Cruz, CA 95062

(C) The execution of any such notices by the Public Works Director of the City shall be effective as to Consultant as if it were by resolution or order of the City Council, and Consultant shall not question the authority of the Public Works Director to execute any such notice.

(D) All such notices shall either be delivered personally to the other party's designee named above, or shall be deposited in the United States Mail, properly addressed as aforesaid, postage fully prepaid, and shall be effective the day following such deposit in the mail.

23. Nondiscrimination. During the performance of this Agreement, Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, creed, sex, national origin, familial status, sexual orientation, age (over 40 years) or disability. Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, ancestry, creed, sex, national origin, familial status, sexual orientation, age (over 40 years) or disability.

24. Conflict of Interest. Consultant warrants and declares that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, in any manner or degree which will render the services required under the provisions of this Agreement a violation of any applicable local, state or federal law. Consultant further declares that, in the performance of this Agreement, no subcontractor or person having such an interest shall be employed. In the event that any conflict of interest should nevertheless hereinafter arise, Consultant shall promptly notify City of the existence of such conflict of interest so that City may determine whether to terminate this Agreement. Consultant further warrants its compliance with the Political Reform Act (Government Code section 81000 et seq.) and Salinas City Code Chapter 2A that apply to Consultant as the result of Consultant's performance of the work or services pursuant to the terms of this Agreement.

25. Headings. The section headings appearing herein shall not be deemed to govern, limit, modify, or in any manner affect the scope, meaning or intent of the provisions of this Agreement.

26. Attorney's Fees. In case suit shall be brought to interpret or to enforce this Agreement, or because of the breach of any other covenant or provision herein contained, the prevailing party in such action shall be entitled to recover their reasonable attorneys' fees in addition to such costs as may be allowed by the Court. City's attorneys' fees, if awarded, shall be calculated at the market rate.

27. **Non-Exclusive Agreement.** This Agreement is non-exclusive and both City and Consultant expressly reserves the right to contract with other entities for the same or similar services.

28. **Rights and Obligations Under Agreement.** By entering into this Agreement, the parties do not intend to create any obligations express or implied other than those set out herein; further, this Agreement shall not create any rights in any party not a signatory hereto.

29. **Licenses.** If a license of any kind, which term is intended to include evidence of registration, is required of Consultant, its representatives, agents or subcontractors by federal, state or local law, Consultant warrants that such license has been obtained, is valid and in good standing, and that any applicable bond posted in accordance with applicable laws and regulations.

30. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute a single agreement.

31. **Legal Representation.** Each party affirms that it has been represented by legal counsel of its own choosing regarding the preparation and the negotiation of this Agreement and the matters and claims set forth herein, and that each of them has read this Agreement and is fully aware of its contents and its legal effect. Neither party is relying on any statement of the other party outside the terms set forth in this Agreement as an inducement to enter into this Agreement.

32. **Joint Representation.** The language of all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against any party. No presumptions or rules of interpretation based upon the identity of the party preparing or drafting the Agreement, or any part thereof, shall be applicable or invoked.

33. **Warranty of Authority.** Each party represents and warrants that it has the right, power, and authority to enter into this Agreement. Each party further represents and warrants that it has given any and all notices, and obtained any and all consents, powers, and authorities, necessary to permit it, and the persons entering into this Agreement for it, to enter into this Agreement.

34. **No Waiver of Rights.** Waiver of a breach or default under this Agreement shall not constitute a continuing waiver or a waiver of a subsequent breach of the same or any other provision of this Agreement. The failure to provide notice of any breach of this Agreement or failure to comply with any of the terms of this Agreement shall not constitute a waiver thereof. Failure on the part of either party to enforce any provision of this Agreement shall not be construed as a waiver of the right to compel enforcement of such provision or any other provision. A waiver by the City of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the date first written above.

CITY OF SALINAS

Ray E. Corpuz, Jr
City Manager

APPROVED AS TO FORM:

Christopher A. Callihan, City Attorney

CONSULTANT



By: Nicole G. Beck, PhD
Its: Principal, 2nd Nature, LLC

Exhibit A



August 2, 2017

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

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

Re: Scope and Budget:
City of Salinas Stormwater Monitoring and Reporting Program (Permit Term 2017-2022)
Year 1 Phase II Scope and Budget

Dear Heidi,

2NDNATURE is pleased to submit a scope of work and cost proposal to the City of Salinas to perform stormwater monitoring and reporting to meet requirements outlined in by the Central Coast Regional Water Quality Control Board (CCRWQCB) revised Monitoring and Reporting Program (MRP) to meet the Phase I NPDES Municipal Stormwater Permit needs (Order # R3-2012-0005; Permit # CA0049981).

2NDNATURE has collaborated with the City and the CCRWQCB to revise the City of Salinas MRP for the next permit term (2017-2022). The MRP now focuses on cost-effective hydrologic and water quality monitoring at select urban outfalls to provide measured data to evaluate the effectiveness of the City Stormwater program over time. The objectives of the monitoring effort align with the revised MRP: 1) assess water quality conditions in waters affected by urban runoff; 2) provide informed input to stormwater management, including the effectiveness of management actions, and 3) improve the precision of measurements of pollutant loading and runoff volume. This outfall monitoring approach will result in a reduction in the annual MRP cost to the City after the sites are instrumented and protocols documented in Year 1 (2017).

The MRP monitoring and reporting interval have been adjusted such that monitoring is conducted and reported on an annual water year interval (Oct 1- Sept 30). This interval shift has resulted in new monitoring sites installed and operable on October 1 2017. Under PO # 2018-00000571 (Yr1 Phase I budget), the City of Salinas partially funded the development of the MRP Quality Assurance Protection Plan (QAPP) required by the CCRWQCB as well as the design, construction and installation of three newly selected outfall monitoring stations (see Figure 1). The addition of the 3 outfalls sampled for continuous hydrology will provide a rich and much improved dataset to estimate pollutant loads. In turn, the receiving water monitoring requirements have been substantially reduced from the previous City MRP.

A comprehensive 5-year scope of work is included herein. Table 1 outlines a general task schedule by permit year and indicates the time frame in which it will be performed. All tasks, except for, annual reporting (task 3), will be performed within the water year interval. Therefore, the 5-year budget and scope described below would begin funding in Sep 2017 and extend through Jan 2023 when the last final annual report is submitted in year 5. Tasks and data collection schedule vary by year depending

upon the execution schedule documented in the MRP. Figure 2 provides greater details on the data collection efforts and frequency at each monitoring station.

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	X				
	Design & Fabricate Samplers	Jun 1 – Oct 1	X				
2	Outfall data collection	Oct 1 – Sep 30	X	X	X	X	X
	Background data collection	Oct 1 – Sep 30	X	X	X	X	X
	Receiving water data collection	Oct 1 – Sep 30				X	
3	Data management & analysis	Oct 1 – Sep 30	X	X	X	X	X
	Annual reporting*	Oct 1 – Jan 30	X	X	X	X	X
4	Project Management	Oct 1 – Sep 30	X	X	X	X	X

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

A Year1_Phase I budget was executed to partially fund Tasks 1 & 2 under PO # 2018-00000571 to ensure 2N personnel had adequate time to complete the QAPP and design and fabricate stormwater sampler in order to begin sampling in October 2017. This document details the scope and budget for all required tasks to execute the City of Salinas MRP. The scope specifically calls out any remaining funds that are required to complete the task for Year 1 (referred to in this document and the MS Excel sheet as "YR1_Phase II").

TASK 1. QAPP AND MONITORING PLAN DEVELOPMENT

Overview: Generate a QAPP with all associated field sampling protocol for Salinas' MRP in the permit term 2017-2022. Sampling that will occur in 2017 – 2022 permit term aligns with the effort previously conducted at the receiving waters. Contractors will use existing language and content in Salinas' [current QAPP](#) and Cooperative Monitoring Plan (CMP) to the extent practical and revise draft language to match the monitoring efforts.

2N Role - 2N will lead the compilation and development of the QAPP and Monitoring Plan. 2N will locate and revise QAPP content required from sections other than the receiving waters monitoring and will compile all content into a draft QAPP. 2N will provide the collated draft QAPP to City of Salinas for review. 2N will perform the final review and revisions to make the document final and submit to the City.

Subcontractor Role - Develop language and protocols to include in the QAPP to perform receiving water monitoring. Submit draft language for the receiving water monitoring sections to 2N in word format for compilation in the draft QAPP. The subcontractor will lead the draft final and final development of the Sections of the QAPP and Monitoring Plan relevant to Receiving Water Monitoring.

Schedule

- Sep 8 2017 - Draft QAPP
- Oct 15 2017 - Final QAPP

YR1 Phase II Cost: \$0; funded under PO# 2018-00000571

TASK 2. MONITORING AND DATA COLLECTION

Stormwater sampling in 2017-2022 will be performed at the 6 sites specified in Figure 1 and sampled at the frequency for the constituents indicated in Figure 2. The QAPP developed in Task 1 will specify the data collection, data management and reporting protocols in detail that will be executed with Task 2 funds. 2NDNATURE will lead the design, execution and reporting of the MRP for the City. As a subcontractor to 2N, Pacific EcoRisk (PER) will conduct receiving water sampling and first flush grab sampling and reporting elements of the MRP. Outfall samples, grab samples, and monthly receiving water samples will be submitted to Monterey Bay Analytical Services (MBAS) for analysis. PER will select the lab(s) to perform all other receiving water samples. Below detail the tasks to be completed by site type.

TASK 2A. URBAN MONITORING AND DATA COLLECTION

TASK 2.A.1 COORDINATE DESIGN AND INSTRUMENT OUTFALL SITES

In a collaborative process the City of Salinas, 2N, and the CCRWQB designated 3 urban outfalls within Salinas' MS4 boundaries that are feasible to instrument and monitor precisely over the next permit term (see table 2). Each outfall drains urban drainages with high or very high runoff and/or pollutant loading priorities as identified in the City baseline runoff and pollutant loading estimates, making them high priority drainages for water quality improvements over the next permit term. Maps of urban drainage area and contributing land use of the three (3) City of Salinas outfalls instrumented Year 1 are attached.

TABLE 2. Urban Monitoring Sites			
Outfall ID	Drainage Area (acres)	% of MS4 area	Approach
RD730	184.2	1%	Urban Loading Trends
RD513	345.8	3%	
RD518	234.4	2%	

Costs include design and fabrication of customized discharge and water quality sample collection stations for the 3 outfalls. Coordination with the City public works department will occur during design. Existing rotted outfalls will be repaired to prevent base leakage prior to site installation. Two automated pressure transducers with data loggers will be installed at each outfall to record discharge and temperature every 10-minutes. Data loggers will be securely installed at the outfall's base on the downstream end and will not affect culvert flow capacity. Additionally, each culvert will be equipped with an external passive stormwater sampling unit. These sampling unit must be custom fabricated to fit each culvert and site characteristics. Summer 2017 site evaluations have identified the need for additional fabrication requirements to protect against vandalism. The custom fabricated units will be installed and tested ensuring proper operation of all 3 outfall monitoring stations by October 1 2017.

Schedule

- Jun 30 2017 - Purchase instruments and materials
- Jul 15 2017- Design sampler unit
- Aug 23 2017 – Final site visit to prepare for production
- Aug 30 2017 - Build sampler units
- Sept 30 2017 – Full installation and testing complete

YR1 Phase II Cost: \$ 15,950 (\$11,950 in labor and \$4,000 in materials)

Additional resources needed to design, purchase materials, fabricate and install security housing to prevent monitoring station vandalism.

TASK 2.A.2 DATA COLLECTION

STATIONS RD513, RD730, RD518

Each of the 3 outfall sites will be sampled for the first flush winter runoff event and up to 4 additional rain event occasions each year. 2N will collaborate with regional partners on the determination of the regional first flush monitoring event annually. 2N will utilize a professional weather forecasting service to monitor storm patterns to identify subsequent potential events for sampling. 2N field personnel will mobilize to sites and prepare stations with sample bottles when a storm event large enough to generate runoff is predicted to occur. At each sample event, 2N will coordinate with analytical laboratory to obtain the appropriate sterilized sample bottles and prepare chambers with passive samplers. 2N personnel will return to sites to retrieve sample bottles 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 performance regularly QA/QC'd including regular downloads between and immediately following targeted sampling events.

Schedule: Year 1; ongoing October 1 2017 – September 30 2018

YR1 Phase II Cost: \$ 61,600 (\$44,850 in labor, \$10,560 analytical and \$5,958 in weather forecasting service)

TASK 2B. RECEIVING WATER MONITORING AND DATA COLLECTION

TASK 2.B.1 COORDINATE SAMPLE SCHEDULE WITH REGIONAL PARTNERS

The receiving water monitoring schedule varies by site and year. Pacific EcoRisk 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.

Schedule: Year 1; ongoing October 1 2017 – September 30 2018

YR1 Phase II Cost: \$1,818

TASK 2.B.2 DATA COLLECTION

MONTHLY SAMPLING STATION 309ALD (FIGURE 1)

Pacific EcoRisk will perform monthly receiving water sampling and submit samples to MBAS for analysis for the contaminants listed in Figure 2 following the protocols outlined in the Task 1 QAPP. As designated in the MRP, monthly receiving water sampling at 309ALD will occur one year only and is currently scheduled to be conducted in year 4. In total, station 309ALD will be sampled 9 times in water year 4, with monthly sampling (Oct – Apr) and twice in the dry months (Jul and Sep). Monthly receiving water sampling should be timed to sample at least 2 rain events. One of those rain events

will be the first flush, and a second rain event at least 30 days after (or 1 month) the first flush, must be sampled.

Schedule: Year 4; ongoing October 1 2020 – September 30 2021

YR1 Phase II Cost: \$0 (no receiving water sampling will occur in year 1)

ANNUAL FIRST FLUSH GRABS STATIONS 309U19, 309GAB, 309NAD (FIGURE 1)

Pacific EcoRisk will perform first flush grab sampling at these stations and submit samples to MBAS for analysis for the contaminants listed in Figure 2 following the protocols outlined in the Task 1 QAPP. Under the CMP program, monthly sampling is performed at upstream sites 309GAB and 309NAD by various regional partners, conducted by Pacific EcoRisk. Resources are available to allow sampling preparation, site visit and grab sample collection, submission to the laboratory and to cover the analytical cost for fecal coliform analyses at 309GAB and 309NAD.

Schedule: Year 1; First Flush October 1 2017 – September 30 2018

YR1 Phase II Cost: \$4,410 (\$3,750 in labor, \$660 in analytical)

ADDITIONAL SAMPLES AT RECEIVING WATER SITES 309ALD, 309DAV

Additional sample collection and analyses will be conducted at receiving water sites 309ALD and 309DAV (Figure 1) at various intervals for various constituents per the MRP and summarized in Figure 2. Pacific EcoRisk will conduct these sampling efforts which are currently planned to occur in Year 4 of the permit term.

Schedule: Year 4; ongoing October 1 2020 – September 30 2021

YR1 Phase II Cost: \$0 (no receiving water sampling will occur in year 1)

TASK 3. DATA MANAGEMENT, ANALYSIS, AND REPORTING

TASK 3A.1 AND 3B.1. DATA MANAGEMENT AND QA/QC

2N will create a customized MS Access database to manage all QA/QC'd data obtained under the City of Salinas Stormwater Monitoring Program. 2N will manage, analyze and report all data (precipitation, discharge and analytical) per the final QAPP. Data management and sharing procedures and formats with subcontractor and laboratory will be defined in the QAPP and executed. The populated digital database with all data obtained under this scope will be managed by 2N will be available to City of Salinas at any time. PER will conduct internal data management and QA/QC procedures prior to sharing digital data in requested formats to 2N.

TASK 3.A.2. AND 3.B.2 ANALYZE DATA AND GENERATE GRAPHICS

Total rainfall depth that drive first flush events will be quantified using the existing Salinas 2E met station. Continuous discharge time series at monitored outfalls will be used to quantify, annual, seasonal and select event runoff volumes from the urban drainage areas. 2N's team will use the data

to detect trends over time with statistical testing that incorporates factors to account for variations in rainfall and flow such as event discharge, event rainfall totals, antecedent rainfall totals, and hydrograph position. 2N will use sampled outfall constituent data (TSS, TDS, turbidity and fecal coliform) to determine the event mean concentration (EMC) for each runoff discharge interval for each site. EMCs will be used to assign a constituent concentration to all unsampled flows that occur throughout the water year allowing a precise computation of event and annual loads for the relevant constituents. Similarly, this task provides resources to explore improved statistical approaches to summarize and report receiving water results to make them more useful and informative to the City and Water Board staff. PER will analyze and generate requested data graphics for receiving water datasets as necessary for inclusion into event and annual reports. These data analysis procedures will be conducted periodically for inclusion in annual reports.

TASK 3.A.3 AND 3.B.3 FORMAT AND UPLOAD TO SWAMP AND CEDEN

All final water quality data will be formatted to be SWAMP compatible and loaded into CEDEN. Per the current MRP language, all water quality monitoring data including stormwater discharge and receiving water monitoring data shall be submitted within 3 months of data collection and quarterly thereafter (Jan 1, Apr 1, July 1, Oct 1) to the California Data Upload and Checking System currently available at <http://www.ccamp.info/ceden/index.html>. 2N will perform data uploads for all data affiliated with outfalls and PER will upload all receiving water and background receiving water data.

TASK 3.A.4-5. AND 3.B.4-5. PREPARE DRAFT & FINAL ANNUAL REPORT

2N will lead the development of draft annual reports that will include a summary of the event and annual hydrology and pollutant loading at each outfall site. Text and figures will display the urban catchment hydrograph at all sampling events, event mean concentrations, and calculations on estimated loads per variable rain event intensities. 2N and PER will collaborate on the final receiving water results reporting formats and desired graphics for inclusion in the annual reports. Annual reports will include a summary of monitoring program, annual sampling frequency and data results. Any issues or challenges will be documents and recommended solutions as applicable.

TASK 3.A.6. AND 3.B.6. EVENT REPORTING

Following each sampling event 2N and PER will compile, review, QA/QC analytical results (per tasks above) MBAS or other contracted laboratory. Within 2 weeks of receiving analytical results, 2N and PER will generate tables to send to the City with all sites monitored, analytical results, and indicate any constituent that experienced exceedances relative to the outlined water quality objectives.

All task 3 subtasks have consistent ongoing schedules in each permit year. The budget for all task 3 costs are aggregated and the annual reporting schedule are listed in the summary below.

Schedule:

- Data Management, Analysis, Upload, & Event Reporting Ongoing; October 1 2017 – September 30 2018
- Draft Annual Report; December 1 2018
- Final Annual Report; January 30 2019
 - *Repeating each year for 4 remaining years of permit.*

Year 1 Phase II Budget: \$77,269 (\$70,300 in 2N labor; \$6,969 in PER labor)

TASK 4. PROJECT MANAGEMENT

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

Schedule: Ongoing; October 1 2017 – September 30 2018

Year 1 Phase II Budget: \$13,930

Thank you for the continued opportunity to work with and partner with the City of Salinas on its stormwater management efforts.

Sincerely,



Dr. Nicole Beck
Principal
2NDNATURE LLC

Salinas Stormwater Monitoring Plan - Permit Term 2017-2022 (Year 1)

Year 1

2NDNATURE Personnel

Pacific EcoRisk Personnel

	Principal	Senior Scientist III	Senior Scientist I	Science Associate II	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	
Hourly Rate	\$175	\$140	\$110	\$90	\$85	\$75	\$202	\$169	\$158	\$140	\$61	

Task 1. QAPP and Monitoring Plan Development (Previous PO)

Task 1.1. Draft QAPP sections and field protocols												\$ -
Task 1.2. Revise and Finalize QAPP for submission to City												\$ -
Task 1	0	0	0	0	0	0	0	0	0	0	0	\$ -

Task 2A. Outfall Monitoring and Data Collection

Task 2A.1. Coordinate, design and instrument outfall sites												
Task 2A.1.1. Design and fabricate sampling stations												\$ -
Task 2A.1.2. Instrument, test and refine set-up			16			8						\$ 2,360
Task 2A.1.3. Security systems to protect from vandalism	2		24		60	20						\$ 9,590
												Task 2A.1 subtotal \$ 11,950
Task 2A.2. Data Collection												
Task 2A.2.1. Site maintenance and sample preparation	4	10	60		40	140						\$ 22,600
Task 2A.2.2. Event sampling	4	10	40			210						\$ 22,250
												Task 2A.2 subtotal \$ 44,850
Task 2A	10	20	140	0	100	378	0	0	0	0	0	\$ 56,800

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							6					\$ 1,212
Task 2B.1.2. Collaborate with City and Ag Coop to collect and submit fecal coliform with CMP program							3					\$ 606
												Task 2B.1 subtotal \$ 1,818
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 309U19, 309GAB, 309NAD							1	3	10	10	1	\$ 3,750
Task 2B.2.3. Perform additional sample sed, bio, metals, organics and toxicity sampling at 309ALD, 309DAV (bio only)												\$ -
												Task 2B.2 subtotal \$ 3,750
Task 2B	0	0	0	0	0	0	10	3	10	10	1	\$ 5,568

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

Task 3A.1. Data management and QA/QC		20	60	32		120						\$ 21,280
Task 3A.2. Analyze data and generate graphics	10	32	40	30		40						\$ 16,330
Task 3A.3. Format and upload data per SWAMP and CEDEN requirements		4	20			40						\$ 5,760
Task 3A.4. Prepare draft annual report	16	16	50			60						\$ 15,040
Task 3A.5. Revise and finalize annual report	4	8	16			16						\$ 4,780
Task 3A.6. Event reporting	2	8	24			40						\$ 7,110
Task 3A	32	88	210	62	0	316	0	0	0	0	0	\$ 70,300

Salinas Stormwater Monitoring Plan - Permit Term 2017-2022 (Year 1)

Year 1

2NDNATURE Personnel

Pacific EcoRisk Personnel

	Principal	Senior Scientist III	Senior Scientist I	Science Associate II	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	
Hourly Rate	\$175	\$140	\$110	\$90	\$85	\$75	\$202	\$169	\$158	\$140	\$61	

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

Task 3B.1. Data management and QA/QC							1	2				\$ 540
Task 3B.2. Analyze data and generate graphics							1	2				\$ 540
Task 3B.3. Format and upload data per SWAMP and CEDEN requirements								2				\$ 338
Task 3B.4. Prepare draft annual report							4	20				\$ 4,188
Task 3B.5. Receiving water trend analysis							1	4				\$ 878
Task 3B.6. Revise and finalize annual report								1	2			\$ 485
Task 3B	0	0	0	0	0	0	7	31	2	0	0	\$ 6,969

Task 4. Project Management

Task 4.1. Project Management	12	6	24			6	8	6				\$ 8,660
Task 4.2. Regional Meetings and Coordination	12	6	12				5					\$ 5,270
Task 4	24	12	36	0	0	6	13	6	0	0	0	\$ 13,930

Total hours	66	120	386	62	100	700	30	40	12	10	1	
Cost per staff	\$ 11,550	\$ 16,800	\$ 42,460	\$ 5,580	\$ 8,500	\$ 52,500	\$ 6,060	\$ 6,760	\$ 1,896	\$ 1,400	\$ 61	

2NDNATURE: \$ 137,390

Pacific EcoRisk \$ 16,177

Fully burdened labor \$ 153,567

Additional expenses

Task 2.A.1 Stage recorders	\$ -
Task 2.A.1.3 Raw materials for site security	\$ 4,000
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	\$ -
total add'l expenses	\$ 21,178
10% markup expenses	\$ 2,118
10% markup subcontractor	\$ 1,618

Total Annual Cost

\$ 178,481