

**Request for Proposals**  
**Bay Area Clean Water Agencies**  
**May 31, 2019**

**Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling**

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## Introduction

Bay Area Clean Water Agencies (BACWA) seeks the services of a consulting engineering firm or team (Consultant) for a planning level study related to Nutrient Discharge Reduction by Water Recycling (Project) for BACWA member agencies with design wastewater flows greater than or equal to one million gallons per day (mgd) (see Table A-1). This Request for Proposal (RFP) includes the information needed for proposal preparation and an attachment identifying participating member agencies. The RFP and attachment describe the scope requirements for the Project.

## Background

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BACWA was founded, and continues, to assist agencies in carrying out mutually beneficial projects, and to facilitate the development of scientific, economic, and other information about the San Francisco Bay environment and the agencies that work to protect it and public health.

Nutrients in the San Francisco Bay are a major concern for the Bay Area water quality community. Historically, the San Francisco Bay has not been adversely impacted by nutrient loading even though it is nutrient-enriched compared to other estuaries around the country. Nutrient management by BACWA members who discharge to the San Francisco Bay is regulated via the Nutrient Watershed Permit, administered by the San Francisco Bay Regional Water Quality Control Board (Regional Water Board).

The Regional Water Board issued the first Nutrient Watershed Permit (R2-2014-0014) in April, 2014, which represented the first phase of a multi-permit effort. That permit required municipal dischargers to (1) support nutrient receiving water monitoring, modeling, and special studies to characterize the Bay's response to current and future nutrient loads; (2) monitor and report their effluent to characterize nutrient discharge concentrations and loads<sup>1</sup>; and (3) evaluate opportunities to reduce nutrient discharges through treatment plant optimization and upgrades. The final report on *Potential Nutrient Reduction by Treatment Optimization, Sidestream*

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<sup>1</sup> See previous Group Annual reports: <https://bacwa.org/document-category/nutrient-annual-reports/>

*Treatment, Treatment Upgrades, and Other Means*, in compliance with the first Nutrient Watershed Permit, is available on BACWA's website<sup>2</sup>.

The second Nutrient Watershed Permit (R2-2019-0017) was adopted on May 8, 2019, and goes into effect on July 1, 2019. In addition to continued monitoring, reporting, and support of scientific studies on the impacts of nutrients on the San Francisco Bay, this Nutrient Watershed Permit includes a requirement to evaluate opportunities to reduce nutrient discharges using wetlands systems, water recycling, and other green solutions. The Regional Water Board's goal is to create a complete suite of nutrient reduction strategies to determine cost-effective actions with the most benefits.

This RFP seeks consultant support for the evaluation of potential nutrient discharge reduction by Water Recycling, to satisfy Provision C.3 of the second Nutrient Watershed Permit.

## **Project Description**

BACWA is seeking a consultant to conduct the Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling Study, described in Provision C.3 of the second Nutrient Watershed Permit, and reproduced below. BACWA envisions that the scoping and evaluation plan will be combined into one task that will be completed and submitted to the Water Board by the December 1, 2019 deadline. The Study entails collecting and compiling information from member agencies on recycled water projects that they are considering through existing planning efforts; it does not include identifying new projects, or assisting agencies in updating existing master plans or initiating efforts to create plans for future water recycling. The analysis will include calculating nutrient load reductions associated with these already planned projects, and evaluating their feasibility and cost-effectiveness. The consultant will also need to assemble information from agencies that have no recycling plans and/or determine that recycling is not feasible for them to pursue.

### **Provision C.3 - Regional Evaluation of Potential Nutrient Discharge Reduction By Water Recycling (From R2-2019-0017)**

*The major Dischargers listed in Table 1 shall, individually or in collaboration with other regional stakeholders, evaluate options and develop planning-level costs for nutrient discharge*

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<sup>2</sup> [https://bacwa.org/wp-content/uploads/2018/06/BACWA\\_Final\\_Nutrient\\_Reduction\\_Report.pdf](https://bacwa.org/wp-content/uploads/2018/06/BACWA_Final_Nutrient_Reduction_Report.pdf)

*reduction by water recycling as described below. These requirements do not apply to the minor Dischargers listed in Table 1.*

- a. **Scoping Plan.** By December 1, 2019, the Dischargers shall, individually or in collaboration with regional stakeholders, submit a Scoping Plan describing the level of work proposed to conduct the evaluation. The Scoping Plan shall include, but is not limited to, the level of work to identify opportunities for potential wastewater recycling (e.g., for irrigation) for each Discharger's facility and subembayment.*
- b. **Evaluation Plan and Implementation.** If a Discharger identifies opportunities, it shall proceed with an evaluation for its facility and subembayment. By July 1, 2020, the Discharger shall, individually or in collaboration with regional stakeholders, submit an Evaluation Plan and schedule describing the methods and means for conducting the evaluation for the sites that are identified in the Scoping Plan. The evaluation shall include, but not be limited to, the following tasks:*
  - Description of all treatment plants, treatment plant processes, and service area;*
  - Estimation of nitrogen (total inorganic nitrogen) and phosphorous (total phosphorous) discharge reductions associated with each recycled water opportunity;*
  - Identification of ancillary adverse effects and ancillary benefits from each project (e.g., reduction of natural water resource diversion, reduction of potable water demand, or reduction of chemical fertilizer reliance);*
  - Assessment of the feasibility, efficacy, reliability, and cost-effectiveness of each opportunity; and*
  - Identification of potential challenges to implementing each opportunity (e.g., regulatory barriers).*

*The Dischargers shall start implementing the Evaluation Plan tasks for each identified site within 45 days of submittal.*

- c. **Status Reports.** By July 1, 2021, and again by July 1, 2022, the Dischargers shall submit, or cause to be submitted, a status report describing the tasks completed, preliminary findings, and tasks yet to be completed for each Discharger that identified water recycling opportunities, highlighting any adaptive changes made to the Evaluation Plan submitted in accordance with task b, above. Status reports may be combined with status reports for Provision VI.C.2, above.*
- d. **Final Report.** By July 1, 2023, the Dischargers shall submit, or cause to be submitted, a Final Report describing the results of their evaluations.*

## Scope of Services

BACWA has prepared a scope of services necessary for completion of the Study, which is provided below. This scope of services shall be used as a basis for preparation of the proposal. Additional tasks or modifications to the scope of services that the Consultant feels will produce a more useful and/or cost-effective project should be included in the proposal.

The project is divided into four tasks that are described below:

- Task 1: Combined Scoping and Evaluation Plan
- Task 2: Analysis
- Task 3: Reporting
- Task 4: Project Management and Project Updates

Upon request, BACWA will supply any information from the studies associated with compliance with the first Nutrient Watershed Permit.

A list of all the participating BACWA Member Agencies is provided in Attachment A.

### **Task 1: Combined scoping and evaluation plan**

By 12/1/19, the consultant shall perform the following:

#### **Task 1.1 – Scoping Plan**

The Scoping Plan will set forth the consultant's approach for completion of the following tasks.

- Describing all treatment plants, treatment plant processes, and service area.
- Identifying opportunities for potential wastewater recycling (for irrigation and other uses) including:
  - Reviewing information from the 2014 Watershed Permit efforts
  - Designing a new request for information (RFI) and using it to collect the most current information for this Study from the agencies
  - Acquiring existing Master Plans and other relevant documents from agencies.
- Identifying agencies for whom recycled water is determined to be infeasible, or is already maximized, and therefore will not be included in this Study

#### **Task 1.2 - Evaluation Plan**

The Evaluation Plan will describe the consultant's approach to evaluating the information obtained.

- Describe the Recycled Water Master Plans (RW Master Plan) and other materials available for basis of information. This include, but not limited by, the following:
  - Recycled water flow and end uses
  - Treatment processes planned to produce recycled water; list any plans for new/modifications to treatment processes for nutrient removal to get a better feed water quality for water recycling purposes

- When agencies' plans include recycling via potable reuse projects, and producing reverse osmosis (RO) concentrate, describe the approach and impact of the agencies' plans for RO concentrate management.
- Establish the basis for calculating nutrient load reduction potential:
  - From direct avoidance of wastewater effluent discharge to the Bay (e.g., irrigation for landscaping and agricultural uses etc.)
  - In cases if agencies have existing plans that have already identified new/modifications to treatment processes to remove nutrients for water recycling purposes, estimate nutrient load reduction potential due to this synergetic benefit
  - For potable reuse projects, estimate nutrient load contained in the RO concentrate discharged to the San Francisco Bay, in case nutrient removal from RO Concentrate becomes feasible and economical in the future
- List examples of adverse/ancillary impacts
- Present Scoping and Evaluation Plan to the Regional Board

## **Task 2: Analysis**

- Briefly review each agency's Recycled Water Master Plan concepts
- Meet with plant/agency staff as needed to understand their Recycled Water Master Plans as well as updates, and other relevant materials.
- Summarize Recycled Water Master Plans, level of certainty, adverse/ancillary impacts and associated nutrient load reductions, and challenges (including financial, legal, organizational, and other practical aspects) for implementing them

## **Task 3: Reporting**

- Individual Plant Summaries
  - Existing RW flows and nutrient loads avoided from its current reported effluent discharge load
  - Findings:
    - Summary of the RW concepts, uses, and potential future flows and nutrient loads removed in 5-year increments (i.e., 2019, 2024, 2029, 2034, 2039 etc.)
    - Distribution map for identified new recycled water projects
    - Summary of existing cost estimates from master plans, converted to dollars per gallon (in January 2018 dollars)
    - Identification of potential challenges to implementing identified projects
- Overall Summary
  - Summary of current recycled water flows and nutrient loads removed
  - Summary of future recycled water flows, uses, and potential nutrient loads reduction, with estimated level of certainty in 5-year increments
  - Summary and analysis of ancillary adverse effects and ancillary benefits from types of projects (e.g., reduction of natural water resource diversion, reduction of potable water demand, or reduction of chemical fertilizer reliance)
  - Summary of the feasibility, efficacy, reliability, and cost-effectiveness of types of recycled water projects to reduce nutrient loads

- Summary of potential challenges to implementing opportunities (e.g., financing, regulatory, organization barriers).

#### **Task 4: Project management and progress updates**

- Updates to the BACWA Recycled Water Committee (6 meetings per year)
- Updates to the BACWA Executive Board (twice per year)
- Presentation of findings to the Regional Water Board, including annual progress updates
- Project management activities

### **Project Schedule**

The project shall be completed based on the major milestones as provided below, or sooner if the consultant determines that a more compact schedule is feasible.

<b>Major Milestone</b>	<b>Date</b>
Notice to Proceed	July 19, 2019
Submit Scoping and Evaluation Plan to Regional Water Board	December 1, 2019
Status Updates to Regional Water Board	July 1, 2021, and by July 1, 2022
Final Report	By July 1, 2023

### **Organization and Content of the Proposal**

<b>Section</b>	<b>Page Limit</b>	<b>Contents</b>
Cover Letter	None	Transmittal
1	None	Identification of Proposer
2	1	Project Overview
3	5	Project Approach
4	3	Project Team and Qualifications
5	3	Project Experience
6	None	Project Schedule
7	None	Level of Effort
8	None	Fee Estimate (Separate)
9	None	Exceptions to Contract Terms and Conditions
A	2 per staff person	Resumes of Key Staff

### Section 1: Identification of Proposer

Clearly list the following information for your firm: company name, address, phone number, fax number, and main contact person with title and email address.

### Section 2: Project Overview (maximum 1 page)

Provide a description of the project.

### Section 3: Project Approach (maximum 5 pages)

*(Note: If accepted by BACWA, this Section (or a mutually agreed upon, modified version) will be inserted into the Consulting Services Contract between BACWA and the selected Proposer/Consultant.)*

Use the information provided in this RFP to provide a detailed description of your approach and proposed tasks for completing the desired services. Describe the tasks that you see as necessary to complete the work of this RFP, meet the BACWA's goals and objectives, and satisfy the requirements of the Agreement.

Describe how you will provide the requested services and how you will flexibly staff the project given the various tasks. Describe how your firm's and sub-consultant's project members will interface with one another, if applicable. Outline the methods and controls by which your firm will manage and complete the tasks as described in this RFP.

Discuss the specific tasks that you may require from BACWA staff and participating agencies. Explain how your firm's staff and BACWA will interface.

### Section 4: Project Team and Qualifications (maximum 3 pages)

Describe the proposed team organization (include an organizational chart); the specific role of key staff members; and how BACWA will be involved with the proposed team. Specifically list the names and titles of the firm's key staff that will participate on the project and indicate the portion of the time that key staff will be available to work on the subject project. For the Project Manager who will be the on-going contact for BACWA, present information on their commitment to the project from the beginning through the completion of the project. Describe prior projects where key team members have worked together. Describe the manner in which key team members interfaced with each other and with the owners of prior projects. For each key project team member describe their level of experience with similar projects (include



resumes in the Proposal Appendix). Please note that any change in staffing from what is listed in the Proposal will require prior approval by BACWA.

If sub-consultants will make up part of the project team, indicate the role and responsibility of each sub-consultant; how the sub-consultant will be managed; and how the sub-consultant will interface with BACWA. Provide the following information for sub-consultants: company name, address, phone number, fax number, and main contact person. Include an organizational chart showing how the project team will be managed.

#### Section 5: Project Experience (maximum 3 pages)

Describe the length of time that the firm has provided the services requested in this RFP and prior clients that have received such services. Summarize recent experience gained from other projects that are specifically relevant to the subject project.

\*Include three (3) references for relevant and related projects over the last five (5) years. The references shall include the following: owner name; contact person with email and phone number; project name; date of project commencement and completion; project location; contract amount; brief project description; and a description of the services provided by your firm.

#### Section 6: Project Schedule

Include a proposed project schedule listing major milestones for the project from project kick-off, through and including, interim milestones and final deliverables.

#### Section 7: Level of Effort and Fee Proposal

Include a spreadsheet that details the Proposer's/Consultant's Estimated Work Effort and fees. The Estimated Work Effort shall list the number of hours with employee title/category that will be devoted to each task and/or subtask described in the Scope of Work (Approach to the Work) submitted by the Proposer/Consultant. The Level of Effort and Fee proposal shall specifically include the following:

- a. An itemized list of all tasks required for the completion of the Work (i.e. Project Management, Site Visit, Final Report, etc.).
- b. A list of all involved personnel (name, title, and/or employee category) with proposed hours and hourly rate for each.
- c. Indicate the use of any sub-consultants (if applicable). Include the sub-consultant's name, employee names with titles and/or employee categories, labor hours, and cost.

- d. Include all required costs required to make a complete project, i.e. labor hours, technology charges, etc. in an itemized format.
- e. Indicate the overhead and profit rates as a percentage of labor.
- f. Indicate the markup on sub-consultants and all other costs.
- g. Indicate the overall not-to-exceed total cost for the work.

At times BACWA contracts on a lump sum basis versus an hourly basis. Discuss the firm's views on what approach would be most mutually favorable to BACWA and the consultant.

Note that BACWA has targeted a Level of Effort for the Project of roughly \$150,000.

#### Section 9: Exceptions to Contract Terms and Provisions

Clearly indicate any exceptions to BACWA's RFP and/or Contract documents. Any exceptions or changes will require review by BACWA's Legal Counsel and are subject to Board review and approval. Any changes may delay the project if not identified with the submission of this proposal.

#### Appendix A: Resumes of Key Staff (maximum 2 pages per staff person)

Provide resumes of key staff, including subconsultants.

### **Proposal Evaluation Criteria**

<b>Criteria</b>	<b>Points</b>
Project approach	30
Expertise of proposed team in nutrient discharge reduction and recycled water planning	15
Principal in Charge/Project Manager – Availability and responsiveness	25
Relevant firm experience with recycled water planning in the Bay Area and nationwide	10
Level of Effort – Appropriate distribution of labor resources	15
Proposed Schedule	5
<b>Total</b>	<b>100</b>

BACWA may make a selection based solely on the written proposals. However, if the selection team cannot make a decision based on the content of the proposals, BACWA may choose to conduct interviews

## Proposal Deadline

Proposals will be sent to Lorien Fono, BACWA Regulatory Program Manager, by email at [lfono@bacwa.org](mailto:lfono@bacwa.org). **Proposals are due by 5pm, Friday ~~June 21~~ June 28.**

## Questions and Other Requests for Information

All questions and requests for information regarding this RFP or the Project shall be directed in writing, via email, to David R. Williams at [dwilliams@bacwa.org](mailto:dwilliams@bacwa.org). Questions shall be submitted by June 11, 2019 and answers will be distributed to all Proposers by June 14, 2019.

## Standard Agreement

### Proposal Costs

The cost for developing the proposal shall be the sole responsibility of the Proposer. BACWA shall not be responsible for any costs to develop proposals.

### Proposals to Remain Open

The Proposer shall guarantee its proposal for a period of ninety (90) calendar days from the proposal due date.

### Withdrawal of Proposal

Proposals may be withdrawn at any time prior to date/time established in this RFP for receipt of Proposals and only by written request for the withdrawal of the Proposal filed with BACWA. The request shall be executed by the Proposer or its duly authorized representative. The withdrawal of the Proposal does not prejudice the right of the Proposer to file a new Proposal. Proposals will not be received after the specified due date and time, and no Proposal may be withdrawn after the specified due date and time established in this RFP.

### Owner's Right Reserved

The RFP does not commit BACWA to award an Agreement. BACWA, at its sole discretion, reserves the right to accept or reject any or all Proposals received, to waive any informality in a Proposal, to interview any and all firms submitting Proposals, to negotiate with any qualified Proposer, to amend the RFP prior to the Proposal due date, or to cancel the RFP in part or completely. All Proposals will become the property of BACWA. If any proprietary information is contained in the Proposal, it should be clearly identified.

BACWA may contact any Consultant to clarify a response and/or contact any of the Consultant's references during the evaluation and review period. BACWA will make a selection based upon

the Evaluation Criteria which establishes the greatest overall value of the professional services to BACWA.

#### Execution of the Agreement

Upon final selection of a Consultant, staff will issue a Notice of Award and Agreement documents to the Consultant for signature. The Consultant selected for the Work shall enter into an Agreement with BACWA and furnish the required insurance certificates with endorsements within fourteen (14) calendar days after receipt of the Agreement and Notice of Award.

## Attachment A

A listing of all BACWA Member Agencies that are required to participate in the Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling is provided in Table A - 1.

**Table A - 1. BACWA Member Agency Discharger Info**

Discharger	Facility Name	Facility Address
American Canyon, City of	Wastewater Treatment and Reclamation Facility	151 Mezzetta Court American Canyon, CA 94503
Benicia, City of	Benicia Wastewater Treatment Plant	614 East Fifth Street Benicia, CA 94510
Burlingame, City of	Burlingame Wastewater Treatment Plant	1103 Airport Boulevard Burlingame, CA 94010
Central Contra Costa Sanitary District	Central Contra Costa Sanitary District Wastewater Treatment Plant	5019 Imhoff Place Martinez, CA 94553
Central Marin Sanitation Agency	Central Marin Sanitation Agency Wastewater Treatment Plant	1301 Andersen Drive San Rafael, CA 94901
Delta Diablo	Delta Diablo Wastewater Treatment Plant	2500 Pittsburg-Antioch Highway Antioch, CA 94509
East Bay Dischargers Authority (EBDA); Cities of Hayward and San Leandro; Oro Loma Sanitary District; Castro Valley Sanitary District; Union Sanitary District; East Bay Regional Parks District; Livermore-Amador Valley Water Management Agency; Dublin San Ramon Services District; and City of Livermore	EBDA Common Outfall	EBDA Common Outfall 14150 Monarch Bay Drive San Leandro, CA 94577
	Hayward Water Pollution Control Facility	
	San Leandro Water Pollution Control Plant	
	Oro Loma/Castro Valley Sanitary Districts Water Pollution Control Plant	
	Raymond A. Boege Alvarado Wastewater Treatment Plant	
	Hayward Marsh	
	Livermore-Amador Valley Water Management Agency Export and Storage Facilities	
	Dublin San Ramon Services District Wastewater Treatment Plant	
	City of Livermore Water Reclamation Plant	
East Bay Municipal Utility District	East Bay Municipal Utility District, Special District No. 1 Wastewater Treatment Plant	2020 Wake Avenue Oakland, CA 94607
Fairfield-Suisun Sewer District	Fairfield-Suisun Wastewater Treatment Plant	1010 Chadbourne Road Fairfield, CA 94534
Las Gallinas Valley Sanitary District	Las Gallinas Valley Sanitary District Sewage Treatment Plant	300 Smith Ranch Road San Rafael, CA 94903
Millbrae, City of	Water Pollution Control Plant	400 East Millbrae Avenue Millbrae, CA 94030

<b>Discharger</b>	<b>Facility Name</b>	<b>Facility Address</b>
Mt. View Sanitary District	Mt. View Sanitary District Wastewater Treatment Plant	3800 Arthur Road Martinez, CA 94553
Napa Sanitation District	Soscol Water Recycling Facility	1515 Soscol Ferry Road Napa, CA 94558
Novato Sanitary District	Novato Sanitary District Wastewater Treatment Plant	500 Davidson Street Novato, CA 94945
Palo Alto, City of	Palo Alto Regional Water Quality Control Plant	2501 Embarcadero Way Palo Alto, CA 94303
Petaluma, City of	Municipal Wastewater Treatment Plant	3890 Cypress Drive Petaluma, CA 94954
Pinole, City of	Pinole-Hercules Water Pollution Control Plant	11 Tennent Avenue Pinole, CA, 94564
Rodeo Sanitary District	Rodeo Sanitary District Water Pollution Control Facility	800 San Pablo Avenue Rodeo, CA 94572
San Francisco (San Francisco International Airport), City and County of	Mel Leong Treatment Plant, Sanitary Plant	Bldg. 924 Clearwater Drive San Francisco, CA 94128
San Francisco (Southeast Plant), City and County of	Southeast Water Pollution Control Plant	750 Phelps Street San Francisco, CA 94124
San Jose and Santa Clara, Cities of	San Jose/Santa Clara Water Pollution Control Plant	700 Los Esteros Road San Jose, CA 95134
San Mateo, City of	City of San Mateo Wastewater Treatment Plant	2050 Detroit Drive San Mateo, CA 94404
Sausalito-Marin City Sanitary District	Sausalito-Marin City Sanitary District Wastewater Treatment Plant	1 East Road Sausalito, CA 94965
Sewerage Agency of Southern Marin	Sewerage Agency of Southern Marin Wastewater Treatment Plant	450 Sycamore Avenue Mill Valley, CA 94941
Silicon Valley Clean Water	Silicon Valley Clean Water Wastewater Treatment Plant	1400 Radio Road Redwood City, CA 94065
Sonoma Valley County Sanitation District	Municipal Wastewater Treatment Plant	22675 8th Street East Sonoma, CA 95476
South San Francisco and San Bruno, Cities of	South San Francisco and San Bruno Water Quality Control Plant	195 Belle Air Road South San Francisco, CA 94080
Sunnyvale, City of	Sunnyvale Water Pollution Control Plant	1444 Borregas Avenue, Sunnyvale, CA 94089
U.S. Department of Navy (Treasure Island)	Treasure Island Wastewater Treatment Plant	1220 Avenue M San Francisco, CA 94130
Vallejo Flood and Wastewater District	Vallejo Flood and Wastewater District Wastewater Treatment Plant	450 Ryder Street Vallejo, CA 94590
West County Agency; West County Wastewater District; City of Richmond; and Richmond Municipal Sewer District	West County Agency Combined Outfall	2910 Hilltop Drive Richmond, CA 94806
	West County Wastewater District Treatment Plant	
	Richmond Municipal Sewer District Water Pollution Control Plant	