



**CITY COUNCIL
AGENDA REPORT**

TYPE OF ITEM: Report
AGENDA ITEM NO.: 4

DATE: November 13, 2018

TO: City Council

FROM: Rosemarie Gaglione
Public Works Director

SUBJECT: Approval of First Amendment to Agreement for Ongoing Water Quality Sampling, a Nutrient Study, and a Long-Term Water Quality Plan at the Channel Islands Harbor (5/5/5)

CONTACT: Rosemarie Gaglione, Public Works Director
rosemarie.gaglione@oxnard.org, (805) 385-8055

RECOMMENDATION:

That the City Council:

1. Approve and authorize the Mayor to execute the First Amendment to Agreement No. A-8093 with Aquatic Bioassay & Consulting Laboratories, Inc. in the amount of \$306,045 for ongoing services relating to the Channel Islands Harbor water quality issue; and
2. Authorize a budget appropriation totaling \$315,806, as follows - General Fund (\$27,500), Waterways Zone 1 (\$153,200), Waterways Zone 2 (\$25,069), Seabridge CFD (\$36,913) and Westport CFD (\$36,211) - to fund the First Amendment to Agreement No. A-8093 and transferring funds from Project Z43801 – Seabridge Waterways TR5266 into Fund 173 (\$36,913).

BACKGROUND

In June 2018, the Channel Islands Harbor experienced a degradation event, resulting in a discoloration of the water and a small amount of marine life death. The areas most affected were in the back basins between Westport and Seabridge Community Facilities Districts. On July 5, 2018, the City Council approved the Fifth Amendment to Agreement No. A-7620 for \$72,650, to provide for water quality sampling, nutrient analysis, program management and presentations to the public. Those funds have been expended, and the City is ready to proceed with next steps in addressing this issue.

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On May 24, 2018, the Public Works Department's Wastewater Division issued a request for proposals (RFP) for water monitoring services to the 13 ELAP-certified laboratories. The RFP was advertised in the Ventura County Star and Vida newspapers, and it was posted on the City's website and the publicpurchase.com website. On July 5, 2018, the City Council awarded Agreement No. A-8093 to Aquatic Bioassay and Consulting laboratories, Inc. in a not to exceed amount of \$453,888 for receiving water monitoring per the Regional Water Quality permit for Oxnard Wastewater Treatment Plant.

This First Amendment to Agreement No. A-8093 will utilize the previous analysis by Aquatic Bioassay to begin the next phase of determining the potential causes, solutions and long term plan to address the water degradation in the Channel Islands Harbor. The amendment's scope of work consists of completing a nutrient study, providing ongoing water sampling and remote sensor maintenance, creating a long-term water monitoring program, completing a hydrology study, participating in several City meetings and producing a final report.

The hydrology study will be covered by the General Fund appropriation. Funding for the remainder of the amendment is split among the neighboring assessment districts based upon the total surface area of the waterways within each district as determined by GIS mapping. See attached map – Attachment C.

District	Percentage Split
Waterways Zone 1	55%
Waterways Zone 2	9%
Seabridge CFD 4	23%
Westport CFD 2	13%

STRATEGIC PRIORITIES

This agenda item supports the Infrastructure and Natural Resources strategy. The purpose of the Infrastructure and Natural Resources strategy is to establish, preserve and improve our infrastructure and natural resources through effective planning, prioritization, and efficient use of available funding. This item supports the following goals and objectives:

Objective 5b. Protect ocean and waterways.

FINANCIAL IMPACT

On October 2, 2018, the City Council approved the release of the escrow funds in amount of \$250,000 and interest of \$36,856 as required by the Seabridge Development Agreement to assist with a potential water degradation event and the transfer of the funds to Project Z43801Seabridge Waterway TR5266 Trust Account. At that time, expenditures of \$68,930 were approved of which \$27,152 was designated as the estimated Seabridge CFD portion of this nutrient study. This action will require an additional \$36,913 from Project Z43801 Seabridge

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escrow fund.

Costs for the First Amendment are allocated as follows:

District	Account Number	Amount
Seabridge CFD 4 (Previously Approved)	173-1606-805-8209	\$27,152
Requested Appropriations:		
General Fund	101-1606-805-8209	\$27,500
Waterways Zone 1	121-1606-805-8209	\$153,200
Waterways Zone 2	121-1606-805-8209	\$25,069
Seabridge CFD 4	173-1606-805-8209	\$36,913
Westport CFD 2	175-1606-805-8209	\$36,211
	TOTAL AMENDMENT	\$306,045

With this recommended appropriation of \$27,500, the unaudited estimated undesignated FY18-19 fund balance of the General Fund (101) is \$17.5 million.

Prepared by Marsha Eubank, Interim Public Works Administrative Services Manager and Sandra Burkhart, Special Districts Manager

ATTACHMENTS:

Attachment A - First Amendment

Attachment B - Budget Appropriation Request

Attachment C - Boundary & Percentage Map Waterways

Attachment D - Agreement A-8093

FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT

This First Amendment ("First Amendment") to the Professional Services Agreement ("Agreement") is made and entered into in the County of Ventura, State of California, this 14th day of November, 2018, by and between the City of Oxnard, a municipal corporation ("City"), and Aquatic Bioassay & Consulting Laboratories, Inc. ("Consultant"). This First Amendment amends the Agreement entered into on July 24th, 2018, by City and Consultant.

City and Consultant agree as follows:

1. Section 1 of the Agreement is hereby replaced in its entirety with the following:

"Consultant shall furnish City with professional consulting services as more particularly set forth in Exhibits A and A-2, both of which are attached hereto and incorporated herein by this reference."

Exhibit A-2 is attached to this First Amendment and is incorporated by this reference in full.

2. Section 8 of the Agreement is hereby replaced in its entirety with the following:

"All services performed pursuant to Exhibit A shall be completed pursuant to the schedules provided in Exhibit B. All services performed pursuant to Exhibit A-2 shall be completed by November 14, 2020. City agrees to amend the performance termination date whenever Consultant is delayed by action or inaction of City and Consultant promptly notifies Manager of such delays.

3. Section 12 of the Agreement is hereby replaced in its entirety with the following:

"This Agreement shall begin on July 1, 2018, and shall expire on June 30, 2021."

4. Section 14(a) of the Agreement is hereby replaced with the following:

"City shall pay Consultant in an amount not to exceed \$453,888 for services provided pursuant to Exhibit A until June 30, 2019, at rates provided in Exhibit C, which is attached hereto and incorporated herein by this reference. City shall pay Consultant in an amount not to exceed \$306,045 for services provided pursuant to Exhibit A-2 until November 14, 2020, at the rates provided in Exhibit C-2, which is attached hereto and incorporated by this reference. Services performed under Exhibit A shall be billed separately from services performed under Exhibit A-2. All invoices must clearly indicate whether they apply to services in Exhibit A or Exhibit A-2. Invoices for Exhibit A may not exceed Exhibit A's maximum amount. Invoices for Exhibit A-2 may not exceed Exhibit A-2's maximum amount. "

Exhibit C-2 is attached to this First Amendment and is incorporated by this reference in full.

As so amended, the Agreement remains in full force and effect.

[Signatures on next page]

IN WITNESS WHEREOF, the parties hereto have executed the Amendment on the date first written above.

CITY OF OXNARD

**AQUATIC BIOASSAY & CONSULTING
LABORATORIES, INC.**

☒ Tim Flynn, Mayor¹ _____ Date _____
☐ Alexander Nguyen, City Manager
☐ Lisa Boerner, Purchasing Manager


 Thomas Mikel, President _____ Date _____

 Mellody Mikel, Secretary _____ Date _____

ATTEST:

 Michelle Ascencion, City Clerk (only if Mayor signs) _____ Date _____

APPROVED AS TO FORM:

 _____ 11/6/18
 Stephen M. Fischer, City Attorney (always required) _____ Date _____

¹ The City Council must authorize and the Mayor must sign the amendment if the original contract and all amendments collectively total over \$175,000 annually. The City Manager may authorize and sign the amendment if the original contract and all amendments collectively total over \$100,000 but up to \$175,000 annually. The Purchasing Manager may authorize and sign the amendment if the original contract and all amendments collectively total up to \$100,000 annually. A Buyer may authorize and sign the amendment if the original contract and all amendments collectively total up to \$25,000 annually.

EXHIBIT A-2 SCOPE OF SERVICES

The scope of this work includes three main tasks:

1. Conduct the sampling program to define the sinks and sources of nutrients in the Harbor and thereby identify potential control measures that can be initiated to maintain or decrease nutrient loading of the Harbor.
2. Recommend the framework for long-term monitoring that will be ongoing and provide information to the City regarding the status of water quality in the Harbor.
3. Conduct a hydrologic modeling study of the Harbor to assess current water retention times, including in the back basins and Edison Canal.

Below are the objectives, deliverables, potential outcomes, and estimated budgets for each of the tasks above.

Nutrient Sources & Sinks

Sampling Plan

This phase of the project will include the development of the written sampling plan that includes the project scope, sampling locations and frequencies, Quality Control requirements, data management, analysis and reporting approach.

Sediment Nutrients

Plant nutrients (nitrogen and phosphorus) sequestered in Harbor sediments are a key factor resulting in recurring algal blooms in the water columns of shallow embayments. Characterizing the spatial distributions and concentrations of nutrients contained in the sediments will assess the status of those substances that promote algal blooms and locate (spatially) the major repositories of these nutrients in Harbor sediments.

Since nutrient concentrations change slowly over time (on the order of years), there will be a one-time sampling event, likely in the fall 2018, to collect up to 30 sediment samples on a station array that will be defined in the Planning phase of this project.

Sediments will be analyzed for total nitrogen and phosphorus, and % solids.

Storm Event Sampling

There will be a total of three sampling events at up to 30 locations to characterize the concentrations of nutrients in Harbor waters, and to identify nutrient sources emanating from storm drains, agricultural runoff and other sources. These three sampling events will be associated with: the 1st major storm event of the year (>0.5 inches); the 2nd storm event; and on one dry weather event. It is highly likely that storm events are a major source of nutrients to the Harbor. Therefore, sampling on the first storm will help to identify the areas in the Harbor channels where nutrient inputs are greatest. The locations and numbers of samples collected may change for the second storm event, based on the information gained from the first storm event sampling. Where possible, samples will be collected near major stormwater and agricultural inputs.

Water samples will be analyzed for: ammonia, nitrate, orthophosphate, total nitrogen and phosphorus. Total and fecal coliforms, and enterococcus bacteria will be measured during the dry weather sampling event only to assess if illegal bilge dumping can be detected.

Program Management

Includes: data analysis and reporting, program management.

Long-Term Monitoring Plan

The design and implementation of a long-term monitoring plan will provide a continuing record of the status of water quality with the Harbor and serve as an early warning system for impending or emerging events. The beginnings of the Long-Term Monitoring plan are already underway with manual water quality measurements being collected by City staff on a weekly basis at various locations throughout the Harbor, and the deployment of a remote sensor package to measure dissolved oxygen, chlorophyll, temperature and pH from the docks in the northern channel at Seabridge. In addition, weekly water samples are being collected for chlorophyll and phytoplankton to characterize the types of algae that are present and to determine if nuisance and/or toxin generating species are present. The City is in the process of acquiring four additional sensor packages that will be deployed in the Channel Islands Harbor to improve the spatial understanding of water quality events.

Funding for the Long-Term Monitoring Program includes:

1. Maintenance, repair and replacement of remote sensing equipment, annual factory calibration and deployment equipment.
2. Weekly (during warm weather) and bi-weekly (cold weather) water quality sampling for phytoplankton and chlorophyll.
3. Laboratory analyses for chlorophyll and phytoplankton.
4. Data analysis and reporting

Hydrology Study

Since the end of March 2018 when the Edison plant pumps were shut down, there has been significant interest in assessing the retention time of Harbor water in the back basins. The water pumped through the power plant, drew water out of the back basins resulting in a net retention time of 2 to 3 days. It was previously estimated that retention times might increase up to 17 days without the pumps in operation. Since the configuration of the back basin has been changed since the original retention study, an updated survey is warranted to properly characterize water flow. This information will identify the movement and residence times of bloom-promoting nutrients in the Harbor and assist engineers in determining the best process for increasing flow through the back basins, should that prove to be a desirable management strategy.

As-Needed Consulting Services

Services to be provided at hourly rates shown on Exhibit C-2. City shall authorize needed services in writing which may include participation at stakeholder meetings, consultation on community response plans and meetings with City staff.

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**EXHIBIT C-2
RATES AND COMPENSATION**

Project	Total
Nutrient Sources & Sinks	\$ 124,640
Long Term Monitoring	\$ 128,400
Hydrology Study: Retention Times	\$ 27,500
As-Needed Consulting Services	Not to Exceed \$ 25,505
	\$ 306,045

Position	Hourly Rate
Chief Science Officer	\$ 325
Senior Scientist	\$ 180
AET Analytical Scientist	\$ 130
Senior Biologist	\$ 120
Field Technician	\$ 80

REQUEST FOR BUDGET APPROPRIATION

Department: Public Works
 Project/Program
 Manager: Sandra Burkhart

Date: November 13, 2018
 Phone: (805) 385-7496

Reason for Appropriation:

Appropriate transfer of funds for \$36,913 and a total of \$278,893 to cover the First Amendment to Agreement No. A-8093 not included in the adopted FY 19 budget.

Accounts and DescriptionsAMOUNT**Fund: 541 - CASH DEPOSIT TRUST FUND****Expenditures/Transfer Out****Seabridge Waterway - TR5266 (Project Z43801)**

541-4391-808-8717	Transfers - Out/Transfers to Other Funds	<u>36,913</u>
	Sub-total Expenditures	<u>36,913</u>

Net Change to Fund Balance	(36,913)
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Fund: 173 - CFD #4 - SEABRIDGE**Revenues/Transfer In**

173-1901-711-7917	Operating Transfer In/Transfers from other Funds	<u>36,913</u>
	Sub-total Revenues	<u>36,913</u>

Net Change to Fund Balance	36,913
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Accounts and DescriptionsAMOUNT**Fund: 101 - GENERAL FUND****Expenditures/Transfers Out**

101-1606-805-8209	Contracts and Services/Svcs-Other Prof/Contract	<u>27,500</u>
	Sub-total Expenditures	<u>27,500</u>

Net Change to Fund Balance	(27,500)
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Accounts and DescriptionsAMOUNT**Fund: 121 - WATERWAYS ZONE 1 AND ZONE 2****Expenditures/Transfers Out**

121-1606-805-8209	Contracts and Services/Svcs-Other Prof/Contract	<u>178,269</u>
	Sub-total Expenditures	<u>178,269</u>

Net Change to Fund Balance	(178,269)
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Accounts and DescriptionsAMOUNT**Fund: 173 - CFD #4 - SEABRIDGE****Expenditures/Transfers Out**

173-1606-805-8209	Contracts and Services/Svcs-Other Prof/Contract	<u>36,913</u>
	Sub-total Expenditures	<u>36,913</u>

Net Change to Fund Balance	(36,913)
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Accounts and DescriptionsAMOUNT**Fund: 175 - CFD #2 - WESTPORT****Expenditures/Transfers Out**

175-1606-805-8209	Contracts and Services/Svcs-Other Prof/Contract	<u>36,211</u>
	Sub-total Expenditures	<u>36,211</u>

Net Change to Fund Balance	(36,211)
Net Appropriation Change	315,806

Approvals	
Department Director	_____
Chief Financial Officer	_____
City Manager	_____

HARBOR SURFACE AREA BY DISTRICT



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AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT FOR PROFESSIONAL SERVICES ("Agreement") is made and entered into in the County of Ventura, State of California, this ~~24th~~ 24th day of July, 2018, by and between the City of Oxnard, a municipal corporation ("City"), and Aquatic Bioassay & Consulting Laboratories, Inc. ("Consultant"). City and Consultant are sometimes individually referred to as "Party" and collectively as "Parties."

WHEREAS, City desires to hire Consultant to perform certain consulting services specified herein; and

WHEREAS, Consultant represents that Consultant and/or Consultant's personnel have the qualifications and experience to properly perform such services.

NOW, THEREFORE, City and Consultant hereby agree as follows:

1. Scope of Services

Consultant shall furnish City with professional consulting services as more particularly set forth in Exhibit A, which is attached hereto and incorporated by this reference in full herein.

2. Method of Performing Services

Subject to the terms and conditions of this Agreement, Consultant may determine the method, details, and means of performing the Services.

3. Standard of Performance

Consultant agrees to undertake and complete the Services to conclusion, using that standard of care, skill, and diligence normally provided by a professional person in performance of similar consulting services.

4. Nonexclusive Services

This Agreement shall not be interpreted to prevent or preclude Consultant from rendering any services for Consultant's own account or to any other person or entity as Consultant in its sole discretion shall determine. Consultant agrees that performing such services will not materially interfere with the Services to be performed for the City.

5. Coordination of Services

The Services shall be coordinated with Wastewater Division Manager ("Manager"), subject to the direction of the City Manager or Department Manager.

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6. Place of Work

Consultant shall perform the Services provided for in this Agreement at any place or location and at such times as the Consultant shall determine.

7. Correction of Errors

Consultant agrees to correct, at its expense, all errors which may be disclosed during review of the Services. Should Consultant fail to make such correction in a reasonably timely manner, such correction shall be made by City, and the cost thereof shall be paid by Consultant.

8. Time for Performance

All services performed under this Agreement shall be completed pursuant to the schedules provided in Exhibit B. City agrees to amend the performance termination date whenever Consultant is delayed by action or inaction of City and Consultant promptly notifies Manager of such delays.

9. Principal in Charge

Consultant hereby designates Scott Johnson as its principal-in-charge and person responsible for necessary coordination with Manager.

10. Permits, Licenses, Certificates

Consultant, at Consultant's sole expense, shall obtain and maintain during the term of this Agreement, all permits, licenses, and certificates required in connection with the performance of the Services, including a City business tax certificate.

11. City's Responsibility

City shall cooperate with Consultant as may be reasonably necessary for Consultant to perform the Services. Manager agrees to provide direction to Consultant as requested regarding particular project requirements.

12. Term of Agreement

This Agreement shall begin on July 1, 2018, and expire on June 30, 2019, with the potential for two (2) one-year extensions beginning July 1, 2019, based upon successful completion of the terms of the monitoring program.

13. Termination

a. This Agreement may be terminated by City with or without cause and at no cost to the City if Manager notifies Consultant, in writing, of Manager's desire to terminate the Agreement. Such termination shall be effective ten (10) calendar days from the date of delivery

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or mailing of such notice. City agrees to pay Consultant in full for all amounts due Consultant as of the effective date of termination, including any expenditures incurred on City's behalf, whether for the employment of third parties or otherwise.

b. This Agreement may be terminated by Consultant with or without cause and at no cost to the Consultant if Consultant notifies Manager, in writing, of Consultant's desire to terminate the Agreement. Such termination shall be effective ten (10) calendar days from the date of delivery or mailing of such notice and only if all assignments accepted by Consultant have been completed prior to the date of termination.

14. Compensation

a. City agrees to pay Consultant in an amount not to exceed \$453,888 for services provided under this Agreement until June 30, 2019 at rates provided in Exhibit C attached hereto and incorporated by this reference in full herein.

b. The acceptance by Consultant of the final payment made under this Agreement shall constitute a release of City from all claims and liabilities for compensation to Consultant for anything completed, finished or relating to the Services.

c. Consultant agrees that payment by City shall not constitute nor be deemed a release of the responsibility and liability of Consultant or its employees, subcontractors, agents and subconsultants for the accuracy and competency of the information provided and/or the Services performed hereunder, nor shall such payment be deemed to be an assumption of responsibility or liability by City for any defect or error in the Services performed by Consultant, its employees, subcontractors, agents and subconsultants.

d. Consultant shall provide Manager with a completed Request for Taxpayer Identification Number and Certification, as issued by the Internal Revenue Service.

e. If any sales tax is due for the Services performed by Consultant or materials or products provided to City by Consultant, Consultant shall pay the sales tax. City shall not reimburse Consultant for sales taxes paid by Consultant.

15. Method of Payment

a. City agrees to pay Consultant monthly upon satisfactory completion of the Services and upon submission by Consultant of an invoice delineating the Services performed, in a form satisfactory to Manager. The invoice shall identify the Services by project as specified by Manager.

b. Consultant agrees to maintain current monthly records, books, documents, papers, accounts and other evidence pertaining to the Services performed and costs incurred. Such items shall be adequate to reflect the time involved and cost of performing the Services. Consultant shall provide Manager with copies of payroll distribution, receipted bills and other documents requested for justification of the invoice.

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16. Responsibility for Expenses

Except as otherwise expressly provided in this Agreement, City shall not be responsible for expenses incurred by Consultant in performing the Services. All expenses incident to the performance of the Services shall be borne by the Consultant, including, but not limited to rent, vehicle, and travel, entertainment and promotion, general liability and health insurance, workers' compensation insurance, and all compensation and benefits of employees or agents engaged by Consultant. Consultant shall, at its own cost and expense, supply all personal property necessary or appropriate to perform the Services provided for under this Agreement, including, but not limited to any personal property used by employees and agents of Consultant in the performance of such Services.

17. Non-Appropriation of Funds

Payments to be made to Consultant by City for the Services performed within the current fiscal year are within the current fiscal budget and within an available, unexhausted and unencumbered appropriation of City. In the event City does not appropriate sufficient funds for payment of the Services beyond the current fiscal year, this Agreement shall cover payment for the Services only up to the conclusion of the last fiscal year in which City appropriates sufficient funds and shall automatically terminate at the conclusion of such fiscal year.

18. Records

a. Consultant agrees that all final computations, exhibits, files, plans, correspondence, reports, drawings, designs, data and photographs expressly required to be prepared by Consultant as part of the scope of services ("**documents and materials**") shall be the property of City and shall, upon completion of the Services or termination of this Agreement, be delivered to Manager.

b. At City's request, City shall be entitled to immediate possession of, and Consultant shall furnish to Manager within ten (10) calendar days, all of the documents and materials. Consultant may retain copies of these documents and materials.

c. Any substantive modification of the documents and materials by City staff or any use of the completed documents and materials for other City projects, or any use of uncompleted documents and materials, without the written consent of Consultant, shall be at City's sole risk and without liability or legal exposure to Consultant. City agrees to hold Consultant harmless from all damages, claims, expenses and losses arising out of any reuse of the documents and materials for purposes other than those described in this Agreement, unless Consultant consents in writing to such reuse.

19. Maintenance and Inspection of Records

Consultant agrees that City or its auditors shall have access to and the right to audit and reproduce any of Consultant's relevant records to ensure that City is receiving the Services

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to which City is entitled under this Agreement or for other purposes relating to the Agreement. Consultant shall maintain and preserve all such records for a period of at least three (3) years after the expiration of this Agreement, or until an audit has been completed and accepted by City. Consultant agrees to maintain all such records in City or to promptly reimburse City for all reasonable costs incurred in conducting the audit at a location other than in City, including but not limited to expenses for personnel, salaries, private auditor, travel, lodging, meals and overhead.

20. Confidentiality of Information

Any documents and materials given to or prepared or assembled by Consultant under this Agreement shall be confidential and shall not be made available to any third person or organization by Consultant without prior written approval of the Manager.

21. Hold Harmless, Indemnity and Defense

a. If Consultant provides any architectural, landscape architectural, engineering or land surveying services:

(1) Consultant shall (1) immediately defend; (2) indemnify; and (3) hold harmless City, its City Council, each member thereof, and its directors, officers, and employees (the "**Indemnified Party**") from and against all liabilities regardless of nature, type or cause to the extent that the liabilities arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant, or its employees, agents or subcontractors. Liabilities subject to the duties to defend and indemnify include, without limitation, all claims, losses, allegations, damages, penalties, fines, and judgments; associated investigation and administrative expenses; defense costs, including but not limited to reasonable attorneys' fees; court costs; and costs of alternative dispute resolution (singularly a "**Claim**" and collectively the "**Claims**").

(2) The duty to defend is a separate and distinct obligation from Consultant's duty to indemnify. Consultant shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, with counsel approved by the City Attorney to the extent required by the paragraph above immediately upon tender to Consultant of the Claim in any form or at any stage of an action or proceeding. An allegation or determination that persons other than Consultant are responsible for the liability shall not relieve Consultant from its separate and distinct obligation to defend the Indemnified Party to the extent required by the paragraph above. The obligation to defend extends through final judgment, including exhaustion of any appeals. The defense obligation includes the obligation to provide independent defense counsel if Consultant asserts that the liability is caused in whole or in part by the negligence or willful misconduct of the Indemnified Party.

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b. If Consultant does not provide any architectural, landscape architectural, engineering or land surveying services as the Services in this Agreement:

(3) To the fullest extent permitted by law. Consultant shall (1) immediately defend; (2) indemnify; and (3) hold harmless the Indemnified Party from and against all liabilities regardless of nature, type, or cause, arising out of or resulting from or in connection with Consultant's performance of this Agreement or Consultant's failure to comply with any of its obligations contained in this Agreement. Liabilities subject to the duties to defend and indemnify include, without limitation, all Claims. If it is finally adjudicated that liability is caused by the comparative negligence or willful misconduct of the Indemnified Party, Consultant's indemnification obligation shall be reduced in proportion to the established comparative liability of the Indemnified Party.

(4) The duty to defend is a separate and distinct obligation from Consultant's duty to indemnify. Consultant shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, with counsel approved by the City Attorney immediately upon tender to Consultant of the Claim in any form or at any stage of an action or proceeding, whether or not liability is established. An allegation or determination of negligence or willful misconduct by the Indemnified Party shall not relieve Consultant from its separate and distinct obligation to defend the Indemnified Party. The obligation to defend extends through final judgment, including exhaustion of any appeals. The defense obligation includes the obligation to provide independent defense counsel if Consultant asserts that liability is caused in whole or in part by the negligence or willful misconduct of the Indemnified Party. If it is finally adjudicated that liability was caused by the sole active negligence or sole willful misconduct of the Indemnified Party, Consultant may submit a claim to City for reimbursement of reasonable attorneys' fees and defense costs.

c. For services under both 21a and 21b, the review, acceptance or approval of Consultant's work or work product by the Indemnified Party shall not affect, relieve or reduce Consultant's indemnification or defense obligations. This Section shall survive completion of the Services or termination of this Agreement. The provisions of this Section shall not be restricted by and do not affect the provisions of this Agreement relating to insurance.

22. Insurance

a. Consultant shall obtain and maintain during the performance of the Services the insurance coverages as specified in Exhibit INS-A, attached hereto and incorporated herein by this reference, issued by a company satisfactory to the Risk Manager, unless the Risk Manager

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waives, in writing, the requirement that Consultant obtain and maintain such insurance coverages.

b. Consultant shall, prior to performance of the Services, file with the Risk Manager evidence of insurance coverage as specified in Exhibit INS-A. Evidence of insurance coverage shall be forwarded to the Risk Manager, addressed as specified in Exhibit INS-A.

c. Maintenance of proper insurance coverages by Consultant is a material element of this Agreement. Consultant's failure to maintain or renew insurance coverages or to provide evidence of renewal may be considered as a material breach of this Agreement.

23. Independent Contractor

a. City and Consultant agree that in the performance of the Services, Consultant shall be, and is, an independent contractor, and that Consultant and its employees are not employees of City. Consultant has and shall retain the right to exercise full control over the employment, direction, compensation and discharge of all persons assisting Consultant.

b. Consultant shall be solely responsible for, and shall save City harmless from, all matters relating to the payment of Consultant's employees, agents, subcontractors and subconsultants, including compliance with social security requirements, federal and State income tax withholding and all other regulations governing employer-employee relations.

c. Consultant acknowledges that Consultant and Consultant's employees are not entitled to receive from City any of the benefits or rights afforded employees of City, including but not limited to reserve leave, sick leave, vacation leave, holiday leave, compensatory leave, Public Employees Retirement System benefits, or health, life, dental, long-term disability and workers' compensation insurance benefits.

24. Consultant Not Agent

Except as Manager may specify in writing, Consultant, and its agents, employees, subcontractors and subconsultants shall have no authority, expressed or implied, to act on behalf of City in any capacity, as agents or otherwise, or to bind City to any obligation.

25. Conflict of Interest

If, in performing the Services set forth in this Agreement, Consultant makes, or participates in, a "governmental decision" as described in Title 2, section 18704 of the California Code of Regulations, or performs the same or substantially all the same duties for City that would otherwise be performed by a City employee holding a position specified in City's conflict of interest code, Consultant shall be subject to City's conflict of interest code, the requirements of which include the filing of one or more statements of economic interests disclosing the relevant financial interests of Consultant's personnel providing the Services set forth in this Agreement.

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26. Assignability of Agreement

Consultant agrees that this Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's personnel's unique competence, experience and specialized personal knowledge. Assignments of any or all rights, duties, or obligations of Consultant under this Agreement will be permitted only with the express written consent of Manager, which consent may be withheld for any reason.

27. Successors and Assigns

Consultant and City agree that this Agreement shall be binding upon and inure to the benefit of the heirs, executors, administrators, successors and assigns of Consultant and City.

28. Fair Employment Practices

a. Consultant agrees that all persons employed by Consultant shall be treated equally by Consultant without regard to or because of race, color, religion, ancestry, national origin, disability, sex, marital status, age, or any other status protected by law, and in compliance with all antidiscrimination laws of the United States of America, the State of California, and City.

b. Consultant agrees that, during the performance of this Agreement, Consultant and any other parties with whom Consultant may subcontract shall adhere to equal opportunity employment practices to assure that applicants and employees are treated equally and are not discriminated against because of their race, color, religion, ancestry, national origin, disability, sex, marital status, age, or any other status protected by law.

c. Consultant agrees to state in all of its solicitations or advertisements for applicants for employment that all qualified applicants shall receive consideration for employment without regard to their race, color, religion, ancestry, national origin, disability, sex, marital status, age, or any other status protected by law.

d. Consultant shall provide City staff with access to and, upon request by Manager, provide copies to Manager of all of Consultant's records pertaining or relating to Consultant's employment practices, to the extent such records are not confidential or privileged under State or federal law.

29. Force Majeure

Consultant and City agree that neither City nor Consultant shall be responsible for delays or failures in performance resulting from acts beyond the control of either party. Such acts shall include, but not be limited to acts of God, strikes, lockouts, riots, acts of war, epidemics, governmental regulations imposed after this Agreement was executed, fire, communication line failures, earthquakes, or other disasters.

Agreement No. A-8093

30. Time of Essence

Consultant and City agree that time is of the essence in regard to performance of any of the terms and conditions of this Agreement.

31. Covenants and Conditions

Consultant and City agree that each term and each provision of this Agreement to be performed by Consultant shall be construed to be both a covenant and a condition.

32. Governing Law

City and Consultant agree that the construction and interpretation of this Agreement and the rights and duties of City and Consultant hereunder shall be governed by the laws of the State of California.

33. Compliance with Laws

Consultant agrees to comply with all City, State, and federal laws, rules, and regulations, now or hereafter in force, pertaining to the Services performed by Consultant pursuant to this Agreement.

34. Severability

City and Consultant agree that the invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision.

35. Waiver

City and Consultant agree that no waiver of a breach of any provision of this Agreement by either Consultant or City shall constitute a waiver of any other breach of the same provision or any other provision of this Agreement. Failure of either City or Consultant to enforce at any time, or from time to time, any provision of this Agreement, shall not be construed as a waiver of such provision or breach.

36. Counterparts

This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which, when taken together, shall be deemed to be one and the same agreement. A signed copy of this Agreement transmitted by email or by other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this Agreement for all purposes.

Agreement No. A-8093

37. Arbitration

Consultant and City agree that in the event of any dispute with regard to the provisions of this Agreement, the Services rendered or the amount of Consultant's compensation, the dispute may be submitted to non-binding arbitration upon the mutual agreement of the parties, under such procedures as the parties may agree upon, or, if the parties cannot agree, then under the Rules of the American Arbitration Association.

38. Expenses of Enforcement

Consultant and City agree that the prevailing party's reasonable costs, attorneys' fees (including the reasonable value of the services rendered by the City Attorney Office) and expenses, including investigation fees and expert witness fees, shall be paid by the non-prevailing party in any dispute involving the terms and conditions of this Agreement.

39. Authority to Execute

a. City acknowledges that the person executing this Agreement has been duly authorized by the City Council to do so on behalf of City.

b. Consultant acknowledges that the person executing this Agreement has been duly authorized by Consultant to do so on behalf of Consultant.

40. Notices

a. Any notices to Consultant may be delivered personally or by mail addressed to, Aquatic Bioassay and Consulting Laboratories, Inc., 29 N. Olive Street, Ventura, CA 93001, Attention: Scott Johnson.

b. Any notices to City may be delivered personally or by mail addressed to City of Oxnard, Public Works Administration, 305 West Third Street, Oxnard, California 93030, Oxnard, California 93030, Attention: Thien Ng.

41. Amendment

City and Consultant agree that the terms and conditions of the Agreement may be reviewed or modified at any time. Any modifications to this Agreement, however, shall be effective only when agreed upon to in writing by both the City representative authorized to do so under the City's purchasing policies and Consultant.

Agreement No. A-8093

42. Entire Agreement

City and Consultant agree that this Agreement constitutes the entire agreement of the parties regarding the subject matter described herein and supersedes all prior communications, agreements, and promises, either oral or written.

[Signatures on next page]

Agreement No. A-8093

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

CITY OF OXNARD

CONSULTANT

Tim Flynn 9/11/18
☒ Tim Flynn, Mayor (if agreement is \$250,000.01 or more) Date
☐ Alexander Nguyen, City Manager (if agreement is \$25,000.01-\$250,000.00)
☐ Lisa Boerner, Purchasing Agent (if agreement is up to \$25,000.00)

Thomas K. Mikel, President Date

Melody A. Mikel, Date
 Chief Financial Officer

ATTEST:

Michelle Ascencion 9/11/18
 Michelle Ascencion, City Clerk Date
 (if agreement is \$250,000.01 or more)

APPROVED AS TO FORM:

Stephen M. Fischer 8/16/18
 Stephen M. Fischer, City Attorney Date
 (required for any agreement amount)

APPROVED AS TO CONTENT:

Thien Ng 8/22/18
 Thien Ng, Project Manager (required Date
 for any agreement amount)

Rosemarie Gaglione 8/27/18
 Rosemarie Gaglione, Department Head Date
 (if agreement is \$25,000.01 or more)

APPROVED AS TO AMOUNT:

N/A
 Alexander Nguyen, City Manager Date
 (if agreement is \$250,000.01 or more)

APPROVED AS TO INSURANCE:

Mike More 9/14/18
 Mike More, Risk Manager (required Date
 for any agreement amount)

The City requires the following for any contract:

1. For a corporation, the signatures of the Board President, CEO or Vice President and of the Board Secretary, Assistant Secretary, CFO or Assistant Treasurer;
2. For an LLC, the signatures of at least two managers of the LLC; or
3. For a partnership, the signature of a partner. If the partnership is a limited partnership, the signer must be a general partner.

If the company has a different structure, or if the above-listed persons are not the appropriate signers, please submit to the City Attorney legally-binding documentation stating who can sign and bind your company.

PLEASE DO NOT
REMOVE THIS BOX

Agreement No. A-8093

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

CITY OF OXNARD

CONSULTANT

☒ Tim Flynn, Mayor (if agreement is Date
\$250,000.01 or more)

Thomas K. Mikel, President

Date

☐ Alexander Nguyen, City Manager (if agreement is \$25,000.01-\$250,000.00)

☐ Lisa Boerner, Purchasing Agent (if agreement is up to \$25,000.00)

[Signature] 7/11/2018
Melody A. Mikel
Chief Financial Officer

ATTEST:

Michelle Ascencion, City Clerk Date
(if agreement is \$250,000.01 or more)

APPROVED AS TO FORM:

Stephen M. Fischer, City Attorney Date
(required for any agreement amount)

APPROVED AS TO CONTENT:

Thien Ng, Project Manager (required Date
for any agreement amount)

Rosemarie Gaglione, Department Head Date
(if agreement is \$25,000.01 or more)

APPROVED AS TO AMOUNT:

Alexander Nguyen, City Manager Date
(if agreement is \$250,000.01 or more)

APPROVED AS TO INSURANCE:

Mike More, Risk Manager (required Date
for any agreement amount)

The City requires the following for any contract:

1. For a corporation, the signatures of the Board President, CEO or Vice President and of the Board Secretary, Assistant Secretary, CFO or Assistant Treasurer;
2. For an LLC, the signatures of at least two managers of the LLC; or
3. For a partnership, the signature of a partner. If the partnership is a limited partnership, the signer must be a general partner.

If the company has a different structure, or if the above-listed persons are not the appropriate signers, please submit to the City Attorney legally-binding documentation stating who can sign and bind your company.

PLEASE DO NOT
REMOVE THIS BOX

EXHIBIT A

SCOPE OF SERVICES

Consultant shall conduct the following services in accordance with the City of Oxnard Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2013-0094, NPDES No. CA005097, CI No. 2022) Attachment E – Monitoring and Reporting Program (MRP), which is attached hereto and incorporated herein by this reference, and Attachment E1 – May 31, 2018 Regional Water Quality Control Board (Regional Board) approved monitoring changes, which is attached hereto and incorporated herein by this reference.

Task 1: Receiving Water Monitoring

Consultant shall provide receiving water monitoring in accordance with Oxnard Wastewater Treatment NPDES Permit, Attachment E – Monitoring and Reporting Program Sections I, II, VII, and IX D.2.

Task 2: 2018 Southern California Bight Regional Monitoring Program (Bight 18) Surveys

Consultant shall provide Bight 18 surveys in accordance with Oxnard Wastewater Treatment NPDES Permit, Attachment E – Monitoring and Reporting Program Sections I, II, VII, IX D.2, and Attachment E1 – May 31, 2018 Regional Board approved monitoring changes.

Task 3: Outfall and Diffuser Inspection

Consultant shall provide outfall and diffuser inspection with Oxnard Wastewater Treatment NPDES Permit, Attachment E – Monitoring and Reporting Program Sections I, II, VIII, and IX D.3.

EXHIBIT B
SCHEDULE OF SERVICES

[SEE ATTACHMENT E – MONITORING AND REPORTING PROGRAM]

EXHIBIT C COMPENSATION RATES

Tasks	Program	Operation	Phase	Task/Analyte	Personnel/Method	Price/Rate	OT Rate	# Samples Hours Days	OT Hours	Events/Yr	Cost	OT Cost	Sub-Total	Operation Total	Task Total		
Task 1	Quarterly WQ	Field	Sampling	Personnel (CTD calibration)	Senior Biologist	\$ 105	\$ 158	8		4	\$ 3,360	\$					
				Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8		1	14	\$ 12,760	\$ 4,410				
				Personnel (ship time)	Field Technician	\$ 75	\$ 113	8		1	14	\$ 8,400	\$ 5,150				
				Equipment	Boat	\$ 2,400		1			14	\$ 33,600					
				Equipment	Materials and supplies	\$ 6,000					1	\$ 6,000					
				Equipment	CTD + pressure sensors	\$ 2,650		1			4	\$ 10,600		\$ 81,260	\$ 81,260		
	Quarterly Pteropod Sampling 6 sites per quarter	Field	Sampling	Personnel (mobilization)	Senior Biologist	\$ 105	\$ 158	4		4	\$ 1,680	\$					
				Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8		3	8	\$ 6,720	\$ 5,780				
				Personnel (ship time)	Field Technician	\$ 75	\$ 113	8		3	8	\$ 4,800	\$ 2,700				
				Equipment	Boat	\$ 2,400		1			8	\$ 19,200					
				Equipment	Materials, supplies, shipping	\$ 4,338					1	\$ 4,338					
				Equipment	CTD	\$ 2,650		1			0	\$		\$ 43,218	\$ 43,218		
	HABs Mussel Arrays 2 events per month for 4 months = 8 days	Field	Sampling	Personnel (mobilization)	Senior Biologist	\$ 105	\$ 158	2		8	\$ 1,680	\$					
				Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8		2	8	\$ 6,720	\$ 2,520				
				Personnel (ship time)	Field Technician	\$ 75	\$ 113	8		2	8	\$ 4,800	\$ 1,800				
				Equipment	Boat	\$ 2,400		1			8	\$ 19,200					
				Equipment	Materials, supplies, shipping	\$ 4,338					1	\$ 4,338					
				Equipment	CTD	\$ 2,650		1			0	\$		\$ 41,058	\$ 41,058		
		Lab	Micro and Chemistry	Bacteria (reduce 2 transects)	Multiple Tube	\$ 159		36		4	\$ 22,913						
				Ammonia (PHYSIS) (DROP)		\$ 69					4	\$					
pH & alkalinity (Dixon Labs)					\$ 132		6			4	\$ 5,168						
Shipping and handling					\$ 160					4	\$ 639		\$ 26,720	\$ 26,720			
Management		Data Management	Personnel	Senior Biologist	\$ 105		16			4	\$ 6,720		\$ 6,720				
		Qrtly Reports	Personnel	Senior Biologist	\$ 105		8			4	\$ 3,360		\$ 3,360				
		Data Analysis	Personnel	Senior Biologist	\$ 105		8			8	\$ 6,720						
		Annual Report	Personnel	Senior Scientist	\$ 150		8			3	\$ 3,600						
				Senior Biologist	\$ 105		8			3	\$ 2,520		\$ 6,120				
Program Management	Personnel	Senior Scientist	\$ 150		8			4	\$ 4,800		\$ 4,800						
Regional Monitoring & Meetings	Water Quality HABs and OA	Senior Scientist	\$ 150	\$ 225	8	1	2	2	\$ 2,400	\$ 900	\$ 3,300						
	CTD User Group	Senior Biologist	\$ 105	\$ 158	8	1	2	2	\$ 2,560	\$ 630	\$ 2,310	\$ 26,610	\$ 218,886				
Task 2	Benthic Sediments Monitoring Sediment Collections @ 29 sites Trawls @ 24 sites includes Domoic Acid Sediment Sampling includes Calculation of Trawled organisms	Field	Sediment Sampling	Personnel (mobilization)	Senior Biologist	\$ 105		2		11	\$ 2,310						
				Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8		4	11	\$ 9,240	\$ 6,930				
				Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8		4	11	\$ 9,240	\$ 6,930				
				Personnel (ship time)	Biologist	\$ 95	\$ 143	8		4	11	\$ 8,360	\$ 6,270				
				Personnel (ship time)	Field Technician	\$ 75	\$ 113	8		4	11	\$ 6,600	\$ 4,950				
				Equipment	Boat	\$ 2,400					11	\$ 26,400					
			Lab	Infauna Analysis	Sorting	Laboratory Technician	\$ 450		18		1	\$ 8,100					
					Identification	Taxonomist	\$ 1,188		18		1	\$ 21,375		\$ 29,475			
		Lab	Sediment Chemistry	Dissolved Sulfides	Plumb. 1981/TERL	\$ 53		0		1	\$						
				Percent Solids	SM 2540B	\$ 30		0		1	\$						
				Trace Mercury	EPA 245.7	\$ 50		0		1	\$						
				Trace Metals	EPA 6020	\$ 195		0		1	\$						
				Organochlorine Pesticides & PCB Cc	EPA 8270C	\$ 270		29		1	\$ 7,830						
				Polynuclear Aromatic Hydrocarbons	EPA 8270C	\$ 294		29		1	\$ 8,516						
				Grain Size	ASTM	\$ 85		0		1	\$						
				Total Kjeldahl Nitrogen	EPA 352.2	\$ 50		0		1	\$						
				Total Organic Carbon	SM 5310 B	\$ 75		0		1	\$						
				Total Cyanide	EPA 9014	\$ 55		0		1	\$						
				Acid Extractable Compounds	EPA 8270C	\$ 175		0		1	\$						
				Toxaphene	NCL-GCMS	\$ 55		0		1	\$			\$ 16,356			
Sediment Toxicity, Mytilus sp. @ 18 sites	Lab	Sediment Toxicity	10 day Eohaustorius		\$ 900		0		1	\$		\$					
	Lab	Sediment Toxicity	Mytilus		\$ 1,103		18		1	\$ 19,800		\$ 19,800	\$ 65,631				

EXHIBIT C COMPENSATION RATES

Tasks	Program	Operation	Phase	Task/Analyte	Personnel/Method	Price/Rate	OT Rate	# Samples	Hours	Days	OT Hours	Events/Yr	Cost	OT Cost	Sub-Total	Operation Total	Task Total
(continued)		Management	Data Management	Personne.	Senior Bio.ogist	\$ 105		8			6	5	5,040		\$ 5,040		
		Management	Data Analysis	Personne.	Senior Biologist	\$ 105		8			5	5	4,200				
					Analysts	\$ 80		8			10	5	6,400		\$ 10,600		
		Management	Annual Report	Personne.	Senior Scientist	\$ 150		8			6	5	7,200				
					Senior Biologist	\$ 105		8			6	5	5,040		\$ 12,240		
		Management	Program Management	Personne.	Senior Scientist	\$ 150		8			6	5	7,200		\$ 7,200		
		Management	Regional Monitoring	Sediment Quality	Senior Scientist	\$ 150	\$ 225	8	3	2	5	2,400	\$ 1,350	\$ 3,750			
				Benthic Infauna	Senior Bio.ogist	\$ 105	\$ 158	8	3	1	5	840	\$ 473	\$ 1,313			
				Trawling Committee	Senior Biologist	\$ 105	\$ 158	8	2	2	5	1,650	\$ 630	\$ 2,310			
				Toxicity	Senior Bio.ogist	\$ 105	\$ 158	8	2	2	5	1,650	\$ 945	\$ 2,625			
			Field Operations	Senior Bio.ogist	\$ 105	\$ 158	8	3	0	5	-	\$ -	\$ -				
			Trash	Senior Biologist	\$ 105	\$ 158	8	3	2	5	1,650	\$ 945	\$ 2,625	\$ 47,703	\$ 106,564		
Task 3	Kelp Bed Monitoring	Management	Central Coast Kelp Consortium	Annual Review Meeting	Senior Scientist	\$ 150		10			1	5	1,500				
				Aerial flyover and report		\$ 9,000						5	9,000		\$ 10,500	\$ 10,500	\$ 10,500
Task 4	Annual Outfall & Diffuser Inspection	Field		Personnel (ship time)	Senior Biologist	\$ 105	\$ 158	8	2	1	5	840	\$ 315				
				Personne.	Divers	\$ 130	\$ 195	8	1	3	5	3,120	\$ 1,170				
				Equipment	Boat	\$ 2,400				1	5	2,400					
				Equipment	Video Equipment	\$ 1,272					1	5	1,272				
				Equipment	Dive Equipment	\$ 1,602					1	5	1,602		\$ 10,719	\$ 10,719	
		Lab	Video and Written Report	Personne.	Senior Scientist	\$ 150		8			1	5	1,200				
				Personne.	Senior Biologist	\$ 105		8			2	5	1,650		\$ 2,850	\$ 2,850	
		Management	Annual Report	Personne.	Senior Biologist	\$ 105		8			1	5	840		\$ 840		
		Management	Program Management	Personne.	Senior Scientist	\$ 150		10			1	5	1,500		\$ 1,500	\$ 2,340	\$ 15,939
																	\$ 451,888

\$ 451,888

City of Oxnard
Oxnard Wastewater
Treatment Plant

NPDES PERMIT NO.
CA0054097
ORDER NO. R4-2013-0094

Attachment E – Monitoring and Reporting Program

CITY OF OXNARD
OXNARD WASTEWATER TREATMENT PLANT

ORDER NO R4-2013-0094
NPDES NO. CA0084097

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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CITY OF OKNARD
OKNARD WASTEWATER TREATMENT PLANT

ORDER NO. R4-2013-0084
NPDES NO. CA0054087

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-2022

Title 40 of the Code of Federal Regulations (40 CFR) part 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California law and regulations.

I. GENERAL MONITORING PROVISIONS

A. Principles, Framework, and Design of Monitoring Program

1. NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the current status of important ecological resources in the waterbody. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the nearshore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.
2. The Regional Water Board and the United States Environmental Protection Agency (USEPA), working with other groups, have developed a comprehensive basis for effluent and receiving water monitoring appropriate to large publicly owned treatment works (POTWs) discharging to waters of the Southern California Bight. This effort has culminated in the publication by the Southern California Coastal Water Research Project (SCCWRP) of the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.B. Welsberg. 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep #367. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). This guidance provides the principles, framework and recommended design for effluent and receiving water monitoring elements that have guided development of the monitoring program described below.
3. The conceptual framework for the Model Monitoring Program has three components that comprise a range of spatial and temporal scales: (1) core monitoring; (2) regional monitoring, and (3) special studies.
 - a. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as some aspects of receiving water monitoring. In the monitoring program described below these core components are typically referred to as local monitoring.
 - b. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all

Attachment E – MRP (Adopted Order: June 6, 2013)

E-2

CITY OF OXNARD
OXNARD WASTEWATER TREATMENT PLANT

ORDER NO. R4-2013-0094
NPDES NO. CA0054097

contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations, and is not specified in this permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this permit, these levels of effort are based upon past participation of the City of Oxnard in regional monitoring programs.

The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Water Board. The procedures and time lines for the Regional Water Board approval shall be the same as detailed for special studies, below.

- c. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies may also be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

The Discharger and the Regional Water Board shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies to the Regional Water Board by December 15, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Water Board meeting, to obtain the Regional Water Board approval and to inform the public. Upon approval by the Regional Water Board, the Discharger shall implement its special study or studies.

- 4. In an attempt to bridge the foregoing gap in information, this monitoring program for the City of Oxnard is comprised of requirements to demonstrate compliance with the conditions of the NPDES permit, ensure compliance with state water quality standards, and mandate participation in regional monitoring and/or area-wide studies.
- 5. Discharger participation in regional monitoring programs is required as a condition of this permit. The Discharger shall complete collection and analysis of samples in accordance with the schedule established by the Steering Committee directing the bight-wide regional monitoring surveys. The level of participation shall be similar to that provided by the Discharger in previous regional surveys conducted in 1984, 1998, 2003 and 2008. The regional programs which must be conducted under this permit include:
 - a. Future Southern California Bight regional surveys, including benthic infauna, sediment chemistry, fish communities and fish predator risk;
 - b. Central Region Kelp Monitoring Program – coordinated by the Regional Water Board; and,
 - c. Central Bight Water Quality Cooperative Program – coordinated monitoring conducted by the Orange County Sanitation District, County Sanitation Districts of Los Angeles County, the City of Los Angeles and the City of Oxnard through appropriate agencies for water quality monitoring.

CITY OF OXNARD
OXNARD WASTEWATER TREATMENT PLANT

ORDER NO. R4-2013-0084
NPDES NO. CA0064087

6. Future Southern California Bight Regional Surveys

Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated through SCCWRP with discharger agencies and numerous other entities. The fourth regional monitoring program (Bight '08) took place during 2008 and 2009. The fifth regional monitoring program is expected to begin during 2013. While participation in regional programs is required under this Order, revisions to the Discharger's monitoring program at the direction of the Regional Water Board may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site-specific water issues of concern. These revisions may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer upon written notification to the Discharger.

7. Central Region Kelp Monitoring Program

The Regional Water Board has helped to establish the Central Region Kelp Survey Consortium to conduct regional kelp bed monitoring. This program is designed to require ocean dischargers in the Regional Water Board's jurisdiction to undertake a collaborative program (which may include participation by Orange County ocean dischargers) to monitor kelp beds in the Southern California Bight, patterned after the successful program implemented by the San Diego Regional Water Board since 1985. Data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to specific dischargers to be compared to regional trends. The regional kelp monitoring survey was initiated during 2003.

The regional survey will consist primarily of quarterly aerial overflights to assess the size and health of existing kelp beds. The Discharger shall participate in the management and technical committee's responsibility for the final survey design and shall provide appropriate financial support to help fund the survey (share base) on the number of participants in the study, but not to exceed a maximum of \$10,000 per year.

- B. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analyses.
- C. Pollutants shall be analyzed using the analytical methods described in 40 CFR parts 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

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- D. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.
- E. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to ensure accuracy of measurements, or shall ensure that both equipment activities will be conducted.
- F. For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program."
- H. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) (the applicable minimum level (ML) or reported Minimum Level (RML)) for each pollutant. The MLs are those published by the State Water Board in the 2009 Ocean Plan, Appendix II. The ML represents the lowest quantifiable concentration in a sample, based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported ML.
- I. The Discharger shall select the analytical method that provides an ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section K. below. If the effluent limitation is lower than all the MLs in Appendix II of the 2009 Ocean Plan, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.
- J. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section K. below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix II of the 2009 Ocean Plan.
- K. In accordance with section III.C.5.b of the 2009 Ocean Plan, the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix II of the 2009 Ocean Plan to be included in the discharger's permit in any of the following situations:

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1. When a pollutant under consideration is not listed in Appendix II;
 2. When the discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;
 3. When the discharger agrees to use an ML that is lower than those listed in Appendix II;
 4. When the discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for the matrix; or,
 5. When the discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- L. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
- M. The Discharger shall develop and maintain a record of all spills and bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the Annual Summary Report.
- N. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.
1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.
 2. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure, or any improved method determined by the Regional Water Board to be appropriate.

O. Laboratory Certification

Laboratories analyzing monitoring samples shall be certified by the CDPH, in accordance with the provision of CWC section 13176, and must include QA/QC data with their reports.

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II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

The City of Oxnard is currently constructing a permanent sampling facility to incorporate a sampling location that enables complete mixing of the secondary-treated effluent and the brine waste from the AVVPF. This sampling facility is expected to be completed by December 2013. This sampling point is referred to as monitoring location EFF-001B. Once this permanent sampling facility becomes operable, the interim monitoring location EFF-001A shall be automatically superseded by monitoring location EFF-001B, which will become the final effluent point of compliance.

Table 1. Monitoring Station Locations

Influent and Effluent Monitoring Stations								
Discharge Point Name	Monitoring Location Name	Monitoring Location Description						
--	INF-001	Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained.						
001	EFF-001A	The interim effluent sampling station shall consist of sampling stations at: (1) a location that will represent the secondary-treated effluent before mixing with the brine waste, and (2) a location that will represent the total brine waste discharged to the outfall. The samples collected from (1) and (2) will be combined proportionate to the flow, and shall conduct the required testing analysis on a single, blended sample.						
001	EFF-001B	The effluent sampling station shall be located downstream of any in-plant return flows and after the brine waste produced from the AVPPF has commingled with the final secondary effluent, where representative samples of the effluent can be obtained.						
Receiving Water Column Monitoring Stations								
Station	RWC-4101 RWC-4102 RWC-4103 RWC-4104 RWC-4105 RWC-4106	RWC-4201 RWC-4202 RWC-4203 RWC-4204 RWC-4205 RWC-4206	RWC-4301 RWC-4302 RWC-4303 RWC-4304 RWC-4305 RWC-4306	RWC-4301 RWC-4302 RWC-4303 RWC-4304 RWC-4305 RWC-4306	RWC-4401 RWC-4402 RWC-4403 RWC-4404 RWC-4405 RWC-4406	RWC-4501 RWC-4502 RWC-4503 RWC-4504 RWC-4505 RWC-4506	RWC-4601 RWC-4602 RWC-4603 RWC-4604 RWC-4605 RWC-4606	RWC-4701 RWC-4702 RWC-4703 RWC-4704 RWC-4705 RWC-4706
Latitude	34°03'54.4" 34°02'37.1" 34°01'58.8" 33°59'22.2" 33°57'16.4" 33°54'55.2"	34°08'18.4" 34°05'43.0" 34°04'37.3" 34°02'16.6" 34°00'42.3" 33°57'58.7"	34°09'36.8" 34°06'51.2" 34°05'02.5" 34°04'11.9" 34°03'02.1" 34°00'30.5"	34°07'57.5" 34°07'28.8" 34°05'58.7" 34°05'02.8" 34°04'17.2" 34°03'10.2"	34°13'50.8" 34°12'22.6" 34°10'57.1" 34°09'25.3" 34°07'54.1" 34°06'08.7"	34°15'55.8" 34°15'18.7" 34°14'50.7" 34°13'58.2" 34°12'57.8" 34°11'53.5"	34°23'05.5" 34°22'13.2" 34°22'15.5" 34°21'45.2" 34°20'53.7" 34°19'53.1"	34°27'12.3" 34°26'35.0" 34°25'56.7" 34°24'16.2" 34°23'05.4" 34°23'30.3"
Longitude	118°50'77.3" 118°51'23.5" 118°51'08.5" 118°52'11.3" 118°53'54.6" 118°54'70.6"	118°50'17.5" 118°51'03.5" 118°51'41.3" 118°52'27.3" 118°53'31.4" 118°54'53.2"	118°50'77.4" 118°51'08.0" 118°51'03.1" 118°51'05.5" 118°52'55.9" 118°53'77.6"	118°51'25.6" 118°51'53.8" 118°52'10.0" 118°52'44.8" 118°53'40.5" 118°54'10.3"	118°51'50.0" 118°52'35.1" 118°52'16.7" 118°53'04.3" 118°53'54.3" 118°54'41.1"	118°52'59.3" 118°53'17.8" 118°53'16.1" 118°53'19.6" 118°53'29.8" 118°53'55.5"	118°53'53.0" 118°54'05.0" 118°54'14.3" 118°54'28.3" 118°54'39.7" 118°54'52.7"	118°54'04.1" 118°54'09.9" 118°54'10.1" 118°54'16.5" 118°54'23.9" 118°54'26.7"

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Station	10	12	28	11	12	10	10	10
Depth (m)	49	30	80	30	30	20	11	20
	80	80	149	30	80	20	30	20
	100	100	100	80	100	20	30	23
	480	100	328	134	205	30	30	30
	788	782	625	333	282	81	30	30
Distance from Channel Transsect (m)	24.3	18.0	8.3	0.1	0.1	4.8	10.0	15.4

Receiving Water Benthic Monitoring Stations							
Station	RWS-001	RWS-002	RWS-003	RWS-004	RWS-005	RWS-006	RWS-007
Latitude	34°07'55.01"	34°07'39.58"	34°07'37.21"	34°07'38.52"	34°07'34.20"	34°07'28.00"	34°05'34.15"
Longitude	119°02'34.87"	119°11'45.76"	119°11'42.33"	119°11'41.34"	119°11'36.24"	119°11'25.20"	119°11'32.25"
Depth (m)	16.0	15.0	16.3	15.0	15.3	15.3	15.3
Distance from Channel Transsect (m)	1000	150	18	18	160	500	4000

Receiving Water Trawl Stations			
Station	RWT-001	RWT-002	RWT-003
Latitude	34°07'55.79"	34°07'28.88"	34°05'31.73"
Longitude	119°11'40.42"	119°11'33.32"	119°09'35.22"
Depth (m)	15.5	15.8	15.6
Distance from Channel Transsect (m)	380	380	4000

Ventura County Shoreline Bacteriological Monitoring Stations			
Ventura County ID	Location	Latitude	Longitude
36000	Hollywood Beach, Los Robles St	34°08'45"	119°13'48"
37000	Channel Islands Harbor Beach	34°08'34"	119°13'19"
38000	Silverstrand Beach, San Nicholas Ave	34°08'28"	119°13'31"
39000	Silverstrand Beach, Santa Paula Ave	34°08'09"	119°13'11"
40000	Silverstrand Beach, Sawtell, Ave	34°08'51"	119°12'58"
41000	Port Hueneme Beach Park	34°08'30"	119°11'40"
42000	Ormond Beach, J Street Drain	34°08'20"	119°11'20"
43000	Ormond Beach, Industrial Drain	34°08'08"	119°11'03"
44000	Ormond Beach, Arnold Rd	34°07'11"	119°08'38"

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III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the Pretreatment Program.

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF001 as follows:

Table 2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Recorder/totalizer	Continuous	²
pH	pH units	Grab	Daily	²
TSS	mg/L	24-hr composite	Daily	²
BOD ₅ 20°C	mg/L	24-hr composite	Daily	²
Oil and grease	mg/L	Grab ³	Weekly	²
Benzidine	µg/L	24-hr composite	Quarterly	²
Heptachlor epoxide	µg/L	24-hr composite	Quarterly	²
PCBs	µg/L	24-hr composite	Quarterly	²
TCDD equivalents	ng/L	24-hr composite	Quarterly	²
Remaining pollutants in Table B of the 2009 Ocean Plan (excluding residual chlorine, acute and chronic toxicity, and ammonia)	µg/L	24-hr composite, or grab, as applicable according to 40 CFR part 136	Semiannually	²
Pesticides	µg/L	24-hr composite	Semiannually	²

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards.
- Assess plant performance, identify operational problems and improve plant performance.

¹ When continuous monitoring of flow is required, total daily flow and peak daily flow (24-hr basis) should be reported.

² Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Board. For any pollutant whose effluent limitation is lower than all the MLEs specified in Appendix II of the Ocean Plan, the analytical method with the lowest MLE must be selected.

³ Oil and grease monitoring in the influent and effluent shall consist of a single grab sample at peak flow over a 24-hour period.

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- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

A. Monitoring Location EFF-001A or EFF-001B

1. The Discharger shall monitor effluent at EFF-001A (Interim location) or EFF-001B (upon becoming operable) as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML:

Table 3. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Total waste flow	mgd	Continuous	---	---
Total residual chlorine	mg/L	Continuous	---	2
Turbidity	NTU	Continuous	---	2
Temperature	°C	Grab	---	2
pH	pH unit	Grab	Daily	2
Settleable solids	mL/L	Grab	Daily	2
Suspended solids	mg/L	24-hr composite	Daily	2
Oil and grease	mg/L	Grab	Daily	2
BOD ₅ 20°C	mg/L	24-hr composite	Daily	2
Total coliform	MPN/ 100mL or CFU/100ml	Grab	Daily	2
Fecal coliform	MPN/ 100mL or CFU/100ml	Grab	5 times/month	2
Enterococcus	MPN/ 100mL or CFU/100ml	Grab	6 times/month	2
Ammonia nitrogen	mg/L	24-hr composite	Monthly	2
Nitrate nitrogen	mg/L	24-hr composite	Monthly	2
Nitrite nitrogen	mg/L	24-hr composite	Monthly	2
Organic nitrogen	mg/L	24-hr composite	Monthly	2
Chronic toxicity	TUc	24-hr composite	Monthly	2
Benzidine	ng/L	24-hr composite	Quarterly	2
Heptachlor epoxide	ng/L	24-hr composite	Quarterly	2
PCBs	µg/L	24-hr composite	Quarterly	2
TCDD equivalents	pg/L	24-hr composite	Quarterly	2
Remaining pollutants in Table B of the 2009 Ocean Plan (excluding acute toxicity)	µg/L	24-hr composite, or grab, as applicable according to 40 CFR part 136	Semiannually	2
Radioactivity ⁴				

⁴ Analyze these radiochemicals by the following USEPA methods: method 800.0 for Gross alpha and Gross beta, method 903.0 or 903.1 for Radium-226, method 904.0 for Radium-228, method 906.0 for Tritium, method 905.0 for Strontium-90, and method 908.0 for Uranium. Analysis for combined Radium-226 & 228

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Radioactive Test Method
(Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hr composite	Semiannually	2
Pesticides ^a	µg/L	24-hr composite	Semiannually	2

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

1. **Methods and test species.** The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite, 100 percent effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, (EPA/600/R-95/136, 1995). Pursuant to the 2008 California Ocean Plan, upon the approval of the Executive Officer of the Regional Water Board, the Discharger may use a second tier organism (e.g., silverside) if first tier organisms (e.g., topsmelt) are not available. However, the Discharger is required to immediately resume the chronic toxicity test using the original testing organism as soon as this organism becomes available.
2. **Frequency**
 - a. **Screening** - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months in 2014. Re-screening is required every 24 months. The Discharger shall re-screen with a marine vertebrate species, a marine invertebrate species, and a marine alga species and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrate that the same species is the most sensitive, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five, suites.
 - b. **Regular toxicity tests** - After the screening period, monitoring shall be conducted monthly using the most sensitive species.
3. **Toxicity Units.** The chronic toxicity of the effluent shall be expressed and reported in Chronic Toxic Units, TU_c, where,

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

^a shall be conducted only if Gross alpha results for the same sample exceed 15 pCi/L or Beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and Uranium. Pesticides are, for purposes of this order, those six constituents referred to in 40 CFR part 125.58(p) (Methoxychlor, Dieldrin, Guthion, Malathion, Mirex, and Permethrin).

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B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manual (EPA-821-R-02-012 and/or EPA/800/R-95/136), then the Discharger must re-sample and re-test within 14 days.
3. Control and dilution water should be laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.
4. A series of at least five dilutions and a control shall be tested. The dilution series shall include the instream waste concentration (IWC), and two dilutions above and two below the IWC. The chronic IWC for Discharge Serial No. 001 is 0.01% effluent. (0.01% is the result of 1 divided by 99, which is sum of dilution credit 98 plus 1).
5. Following paragraph 10.2.6.2 of USEPA's chronic freshwater test methods manual (EPA/821/R-02/013, 2002, as specified in CFR part 136), the Discharger shall review the concentration-response relationship for each multi-concentration test to ensure that calculated test results are interpreted appropriately. All WET test results should be reviewed and reported following *Method Guidance and Recommendations for WET Testing* (EPA/821/B-00-004, 2000).
6. Because this permit requires sublethal hypothesis testing endpoints from the 1995 West Coast marine and estuarine WET test methods manual and the 2002 East Coast marine and estuarine WET test methods manual, within test variability must be reviewed and variability criteria (e.g., Minimum Significance Difference (MSD) bound, Percent, Minimum Significance Difference (PMSD) bounds) must be applied, as specified in the test methods manuals. The calculated MSD (or PMSDs) for both reference toxicant test and effluent toxicity test results must meet the MSD bound (or PMSD bounds) variability criteria specified in the test methods manuals.
7. pH drift during the toxicity test may contribute to artifactual toxicity when pH-dependent toxicants (e.g., ammonia, metals) are present in an effluent. To determine whether or not pH drift during the toxicity test is contributing to artifactual toxicity, the Discharger shall conduct three sets of parallel toxicity tests, in which the pH of one treatment is controlled at the pH of the effluent and the pH of the other treatment is not controlled, as described in section 11.3.6.1 of the test methods manual, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002). Toxicity is confirmed to be artifactual and due to pH drift when no toxicity above the chronic WET permit limit or trigger is observed in the treatments controlled at the pH of the effluent. If toxicity is confirmed to be artifactual and due to pH drift, then following written approval by the permitting authority, the Discharger may use the procedures outlined in section 11.3.6.2 of the test methods manual to control sample pH during the toxicity test.

C. Accelerated Monitoring

If the effluent toxicity test result exceeds the limitation, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two

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weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within five working days of receipt of the test results exceeding the toxicity limitation.

1. If all the results of the six additional tests are in compliance with the toxicity limitation, the Discharger may resume regular monthly testing.
2. If the result of any of the six additional tests exceeds the limitation, then the Discharger shall continue to monitor once every two weeks until six consecutive biweekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.
3. If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) and implement the Initial Investigation Toxicity Reduction Evaluation (TRE) work plan.
4. If implementation of the initial investigation TRE work plan (see Item E below) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

D. Preparation of an Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a copy of the Discharger's Initial Investigation TRE (TRE) work plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE work plan must contain the provisions in Attachment G. This work plan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include the following, at a minimum:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,
3. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP section V.E.3 below for guidance manuals.

E. Steps in TRE and TIE

1. If results of the implementation of the facility's Initial Investigation TRE work plan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE work plan for submittal to the Executive Officer within 15 days of completion of the Initial Investigation TRE. The detailed work plan shall include, but not be limited to the following:
 - a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and,
 - c. A schedule for these actions.

Attachment E – MRP (Adopted Order: June 6, 2013)

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2. The following section summarizes the stepwise approach used in conducting the TRE:
 - a. Step 1 includes basic data collection.
 - b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals.
 - c. If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity.
 - d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options.
 - e. Step 5 evaluates in-plant treatment options.
 - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE work plan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity violations.

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic manual, EPA/600/R-98-054 (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.
4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in section V.C. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.
5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

F. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.

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- a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
 - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
 - c. Conduct graduated pH tests as specified in the TIE methods. For example, mortality should be higher at pH 8 and lower at pH 6.
 - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

G. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month, as required by this permit. Test results shall be reported in Chronic Toxicity Units (TU_c), as required, with the self-monitoring report (SMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to section V.C.4, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

1. The full report shall be received by the Regional Water Board by the 15th day of the second month following sampling.
2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the toxicity limit.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include the following, at a minimum, as applicable, for each test, as appropriate:
 - a. sample date(s)
 - b. test initiation date
 - c. test species
 - d. end point values for each dilution (e.g. number of young, growth rate, percent survival)
 - e. LC₅₀ value(s) in percent effluent
 - f. TU_a value(s) $\left(TU_a = \frac{100}{LC50} \right)$

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g. NOEC value(s) in percent effluent

h. TL₀ values $\left(TU_c = \frac{100}{NOEC} \right)$

i. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)

j. IC/EC₂₅ values(s) in percent effluent

Inhibition Concentration (IC_p) is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological endpoint (e.g., reproduction, growth) calculated from a continuous model (e.g., EPA Interpolation Model).

Effective Concentration (EC_p) is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a quantal biological measurement (e.g., development, survival) calculated from a continuous model (e.g., Probit).

k. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)

l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.

5. The Discharger shall notify this Regional Water Board immediately of any toxicity exceedance and in writing 14 days after the receipt of the results of an effluent limit. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. RECLAMATION MONITORING REQUIREMENTS

The reuse of the reclaimed water is regulated under a separate WDRs and Water Recycling Requirements (WRRs) for City of Oxnard Groundwater Recovery, Enhancement, and Treatment Program – Non Potable Reuse Phase 1 Project (GREAT Program – Phase 1 Project), Order No. R4-2008-0083 as amended by Order No. R4-2011-0079, File No. 64-104 and File No. 08-070, CI-9456.

VII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Offshore Water Quality Monitoring

This survey addresses the compliance questions: "Are Ocean Plan and Basin Plan objectives for parameters listed in Tables 4a and 4b being met?" Data collected provide the information necessary to demonstrate compliance with the standards for local monitoring. In addition, data

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collected by the Discharger contributes to the Central Bight Cooperative Water Quality Survey. This regionally coordinated survey provides integrated water quality surveys on a quarterly basis. These surveys cover 200 kilometers of coast in Ventura, Los Angeles, and Orange Counties, from the nearshore to approximately 10 kilometers offshore. This cooperative program contributes to a regional understanding of seasonal patterns in nearshore water column structure. The regional view provides context for determining the significance and causes of locally observed patterns in the area of wastewater outfalls.

1. The Discharger shall monitor receiving water quality at 48 Receiving Water Column Monitoring Stations from RWC-4101 to RWC-4708 (See Table 1) as follows:

Table 4a. Receiving Water Monitoring Requirements – 1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved oxygen	mg/L	continuous profile	quarterly	2
Water temperature	°C	continuous profile	quarterly	2
Light transmittance	% transmittance	continuous profile	quarterly	6
Salinity	ppt	continuous profile	quarterly	2
pH	pH units	continuous profile	quarterly	2
Chlorophyll a	µg/L	continuous profile	quarterly	2
Visual observations	---	---	quarterly	7

Sampling techniques shall follow protocols described in the most current edition of the *Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP*. Data shall be analyzed to approximate the typical wastewater plume movement and data from 1998 and forward shall be analyzed to determine and map out the wastewater plume movement under different seasonal and weather conditions.

2. The Discharger shall monitor bacteria and ammonia at 18 receiving water column monitoring stations of RWC-4301 to RWC-4308, and RWC-4381 to RWC-4398, and RWC-4401 to RWC-4408 (See Table 1) as follows:

⁶ Light transmittance (transmissivity) shall be measured with a transmissometer, using equipment and procedure similar to that described by L.V. Whitney [*Transmission of Solar Energy and the Scattering Produced by Suspensoids in Lake Waters*, Transactions of the Wisconsin Academy of Sciences, Arts, and Letters, Vol. 31 (1938)]. Results shall be expressed as the percent of light transmittance. Path length of transmissometer should be noted.

⁷ Observations of wind (direction and speed), weather (e.g., cloudy, sunny, or rainy), current (e.g., direction), and tidal conditions (e.g., high or low tide) shall be made and recorded (every four hours during offshore sampling) at the time samples of the waters of the Pacific Ocean (shore, nearshore, and all offshore stations) are collected.

Observations of water color, discoloration, oil and grease, turbidity, odor, materials of sewage origin in the water or on the beach, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall also be made and recorded at stations or while in transit. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported.

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Table 4b. Receiving Water Monitoring Requirements – 2

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom ⁶	quarterly	2
Fecal coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom ⁶	quarterly	2
Enterococcus	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom ⁶	quarterly	2
Ammonia nitrogen	mg/L	grab, surface and mid-depth and near bottom ⁶	quarterly	2

B. Benthic Monitoring

Benthic monitoring includes Infauna and sediment. The Discharger shall annually monitor Infauna and sediment at 7 receiving water benthic monitoring stations of RWS-001 to RWS-007 (See Table E-1).

1. **Local Benthic Survey** – This survey addresses the question: "Are benthic conditions under the influence of the discharge changing over time?" The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence of the discharge.

a. Local Benthic Trends Survey

- (1) **Infaunal Community Survey** – The benthic stations shall be conducted for benthic infaunal sampling⁶. These stations shall be sampled during late summer (August/September). Bottom samples for benthic infaunal analyses shall be taken at each benthic station prior to trawl sampling. The following determinations shall be made at each station, where appropriate:

- i. Identification of all organisms to lowest possible taxon (usually species); and,
- ii. Total biomass of:
 - Mollusks;
 - Echinoderms;
 - Annelids/polychaetes;
 - Crustaceans; and,
 - All other macroinvertebrates.

⁶ Bottom sampling shall be done 2.0 m (6.6 ft) above the seabed.

⁷ These bottom samples shall be taken by means of a 0.1 m² (1.1 ft²) modified Van Veen sediment grab sampler. The entire contents of each sample shall be passed through a 1.0 mm (0.039 in.) mesh screen to retrieve the benthic organisms. These organisms shall be fixed in 10% buffered formalin and transferred to 70% ethanol within two to seven days for storage. Organisms can be stained with Rose Bengal to facilitate sorting. All specimens retrieved shall be archived.

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III. Community structure analysis for benthic Infauna¹⁰ for each station and each replicate.

Mean, median, range, standard deviation, and 95% confidence limits, if appropriate, for values determined above in III. The Discharger may be required to conduct additional "statistical analyses" to determine temporal and spatial trends in the marine environment.

- (2) Sediment Chemistry Survey – All benthic sediment samples shall be taken at each station by means of a 0.1 m² (1.1 ft²) modified Van Veen sediment grab sampler. Sub-samples (upper two centimeters) of sediment from each sample shall be collected and analyzed separately for the following parameters at each station:
- i. Total organic carbon (TOC) (mg/kg dry wt);
 - ii. Dissolved sulfides (water soluble) (mg/kg dry wt);
 - iii. Total Kjeldahl nitrogen (mg/kg dry wt);
 - iv. Grain size (sufficiently detailed to calculate percent weight in relation to phi size); and,
 - v. Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in µg/kg dry weight.

Annual testing shall be required for these parameters during late summer (August/September). Bottom samples for sediment chemistry analyses shall be taken at each benthic station prior to trawl sampling.

In August/September of the third year of the permit, full priority pollutant scans shall be performed on sediment samples from all stations.

- (3) Sediment Toxicity Survey – Sediment toxicity testing shall be conducted annually (August/September) at two receiving water sediment monitoring stations of RWS-003 and RWS-007. Three replicate samples shall be collected for testing at each station. Sub-samples (upper two centimeters) shall be taken from each sediment sample and tested with amphipod *Eohaustorius* - survival end point; using standard protocols approved by the Executive Officer of this Regional Water Board.

¹⁰ Community structure analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance, species abundance per grab, species richness, species diversity (e.g., Shannon-Wiener), species evenness and dominance per station and replicate, similarity analyses (e.g., Bray-Curtis, Jaccard or Sorensen), cluster analyses (using unweighted pair-group method) or other appropriate multivariate statistical techniques approved by the Executive Officer of this Regional Water Board and USEPA Region IX, and the Infaunal Index.

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2. Regional Benthic Survey

- a. This regional survey addresses the questions: 1) What is the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight? and 2) What is the relationship between biological response and contaminant exposure? The data collected will be used to assess the condition of the sea-floor environment and the health of the biological resources in the Bight.
- b. Sampling Design - A regional survey of benthic conditions within the Southern California Bight took place in 2008 (Bight'08). The final survey design was determined cooperatively by the participants represented on the Regional Steering Committee. The Discharger provided support to the Bight'08 benthic survey by participating in or performing the following activities:

- (1) Participation on the Steering Committee;
- (2) Participation on the relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Benthos, and Chemistry);
- (3) Field sampling at sea;
- (4) Infaunal sample analysis;
- (5) Sediment chemistry analysis; and,
- (6) Data management

This level of participation in the 2008 survey was consistent with that provided by the Discharger during the 1994, 1998 and 2003 Regional Benthic Surveys. The next regional survey is expected to take place in 2013 and the Discharger's level of participation shall be consistent with that provided in previous survey.

C. Fish and Macroinvertebrate Monitoring

1. Local Fish and Macroinvertebrate Survey - This survey addresses two questions: 1) "Are the health of demersal fish and epibenthic invertebrate communities?" and 2) "Are fish tissue contamination levels in the vicinity of the discharge changing over time?" The data collected are used for regular assessment of temporal trends in community structure and bioaccumulation along an array of sites within the influence of the discharge. Data will also be collected on trash and debris to contribute to the Santa Monica Bay Restoration Project (SMBRP's) Sources and Loadings program. The Discharger shall monitor fish and macroinvertebrate at three receiving water trawling stations of RWT-001 to RWT-003 (See Table 1) as follows:

a. Local Fish and Macroinvertebrate Population Survey

- (1) The offshore trawling stations shall be sampled annually (August/September) for demersal fish and epibenthic macroinvertebrates.
- (2) Trawling methods shall follow the protocols described in the most current edition of the *Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP*.

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- (3) Fish and macroinvertebrates collected by trawls shall be identified to the lowest taxon possible. At all stations and for each replicate, community structure analysis for fish and macroinvertebrates¹¹ shall be conducted for fish and macroinvertebrates for each station.
- (4) Mean, range, standard deviation, and 95% confidence limits, if appropriate, shall be reported for the values determined in the community analysis. The Discharger may be required to conduct additional "statistical analyses" to determine temporal and spatial trends in the marine environment.
- (5) Abnormalities and disease symptoms shall be described and recorded (e.g., fin erosion, external lesions, tumors, ectoparasites, and color anomalies). The frequency of abnormalities and incidence of disease shall be compared between the Zone of Initial Dilution (ZID) boundary and the reference station, and trends in these values shall be measured over time. The results of this inspection shall be included in the monitoring report.

b. Local Fish and Macroinvertebrate Tissue Survey

Fish and macroinvertebrate tissues shall be obtained from fish collected by trawls and from invertebrates collected by trawls or SCUBA at the trawling stations.

Annually, tissues of two species (one demersal fish and one macroinvertebrate) of importance to commercial and/or sport fishers or of obvious ecological significance shall be analyzed for priority pollutants (i.e., for bioaccumulation of toxic pollutants). If possible, for the duration of this permit and order, the same species shall be used at all stations.

(1) Fish Tissues

- i. Tissue, as applied to the analysis of priority pollutants, signifies separate analyses for muscle and liver. All tissue samples shall be analyzed for wet weight and percent lipid.
- ii. Annual testing shall be required in late summer (August/September) and shall include analysis for: Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives.
- iii. The data for these parameters shall be expressed in µg/kg dry weight.

¹¹ Community structure analysis of fish and macroinvertebrates shall include wet weight of fish and macroinvertebrate species (when combined weight of individuals of one species exceeds 0.2 kg), standard length of each individual, number of species, number of individuals per species, total numerical abundance per station, number of individuals in each 1-cm size class for each species of fish, species abundance per trawl and per station, species richness, species diversity (e.g., Shannon-Wiener), species evenness, similarity analyses (e.g., Bray-Curtis, Jaccard or Sørensen), cluster analyses (using unweighted pair-group method) or other appropriate multivariate statistical techniques approved by the Executive Officer of the Regional Water Board and USEPA Region IX.

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6. If Ventura County reduces the shoreline bacteriological monitoring program in frequency (less often than weekly) or seasonally, or reduces the number of stations in the area defined by these stations, then the Discharger shall initiate a weekly shoreline bacteriological monitoring program to replace the Ventura County's effort. This program shall be submitted to this Regional Water Board for approval by the Executive Officer.
7. If Ventura County restores the shoreline bacteriological monitoring program, the Discharger shall inform this Regional Water Board for authorization to resume the shoreline bacteriological monitoring program conducted by the Discharger.

VIII. OTHER MONITORING REQUIREMENTS

A. Special Study

1. CEC Monitoring in the Effluent

In recent years, the Los Angeles Regional Water Board has incorporated monitoring of a select group of man-made chemicals, particularly pesticides, pharmaceuticals and personal care products, known collectively as CECs, into permits issued to publicly-owned treatment works (POTWs) to better understand the propensity, persistence and effects of CECs in our environment. Recently adopted permits in this region contain requirements for CEC effluent monitoring and submittal of a work plan identifying the CECs to be monitored in the effluent, sample type, sampling frequency and sampling methodology. Based on feedback we have received from permittees and our review of the results of a recent CEC-related study by the Southern California Coastal Water Research Project (SCCWRP) and the State Water Board, we have modified our CEC monitoring program to respond to feedback while proceeding to fill identified data gaps without overly burdening any one permittee.

The Discharger shall conduct a special study to investigate the CECs in the effluent discharge as listed in the Table below. These constituents shall be monitored annually for at least 2 years. The Regional Water Board has determined that 2 years is an appropriate time period to determine those CECs that are present in POTW effluent. Monitoring results shall be reported as part of the annual report. Within six months of the effective date of this Order, the Discharger shall submit to the Executive Officer a CECs special study work plan for approval. Upon approval, the Discharger shall implement the work plan.

Table 6. CEC Monitoring Requirements

Parameter	Unit	Sample Type	Minimum Sampling Frequency	Analytical Test Method and (Minimum Level, units)
17 α -Ethinyl Estradiol	ng/L	To be proposed	Annually	To be proposed
17 β -Estradiol	ng/L	To be proposed	Annually	To be proposed
Estrone	ng/L	To be proposed	Annually	To be proposed
Bisphenol A	ng/L	To be proposed	Annually	To be proposed
Nonylphenol & Nonylphenol polyethoxylates	ng/L	To be proposed	Annually	To be proposed
Octylphenol & octylphenol polyethoxylates	ng/L	To be proposed	Annually	To be proposed
Polybrominated diphenyl ethers	ng/L	To be proposed	Annually	To be proposed

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- iv. In August/September of the third year of the permit, full priority pollutant scans shall be performed on fish tissue samples from all offshore trawling stations.
- v. For fish tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station¹². Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of tissues¹³ taken from fish of one species and include at least six individuals. In order to obtain the required number of individuals, additional trawls may be necessary.
- vi. Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to this Regional Board and the USEPA Region IX.
- vii. The following fish species are recommended for the tissue analysis of priority pollutants: White Croaker (*Genyonemus lineatus*) and Speckled sanddab (*Citharichthys stigmaeus*).

(2) Macroinvertebrate Tissues

- i. Tissue, as applied to the analysis of priority pollutants in macroinvertebrates, signifies analyses for muscle or other tissue, if muscle is impractical. All tissue samples shall be analyzed for wet weight and percent lipid.
- ii. Annual testing shall be required in late summer (August/September) and shall include analysis for: Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives.
- iii. The data for these parameters shall be expressed in µg/kg dry weight.
- iv. In August/September of the third year of the permit, full priority pollutant scans shall be performed on macroinvertebrate tissue samples from all offshore trawling stations.
- v. For macroinvertebrate tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station. Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of sufficient tissue taken from at least three individual organisms of one species. In order to obtain the required number of individuals, additional trawls may be necessary. When feasible, tissues from

¹² Where appropriate, individuals (from trawls) comprising the smallest 10 percent by weight shall not be used as part of the composite sample. Individuals for tissue analysis shall be randomly selected from the remaining organisms.

¹³ Tissue samples removed from individuals shall be of uniform weight. To the extent feasible, individual fish selected for analysis should be of the same sex.

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organisms of the same species should be analyzed from year to year to facilitate comparability.

vi. Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to the LA Regional Board and USEPA Region IX.

vii. The following macroinvertebrate species are recommended for the tissue analysis of priority pollutants: Sandstar (*Astropecten* spp), Shrimp (*Crangon* spp), and Crab (*Cancer* spp).

(3) Bagged Mussel Tissue

i. The City of Oxnard currently is conducting a special study using bagged bivalves to assess bioaccumulation of contaminants in mussel tissue. If the results of this special study support a change, the City of Oxnard may request written approval from the Executive Officer to substitute mussels in lieu of the fish and invertebrate species identified above.

2. Regional Fish and Macroinvertebrate Survey

a. This survey addresses the questions: 1) What is the extent, distribution, magnitude and trend of ecological change in demersal fish and epibenthic communities within the Southern California Bight? and 2) What is the relationship between biological response and contaminant exposure? The data collected will be used to assess the condition of the seafloor environment and health of biological resources in the Bight.

b. A regional survey of trawl-caught demersal fish and epibenthic invertebrates within the Southern California Bight took place in 2008 (Bight'08). The final survey design was determined cooperatively by the participants as represented on the Regional Steering Committee. The Discharger provided support to the Bight'08 surveys by participating in or performing the following activities:

- i. Participation on the Steering Committee;
- ii. Participation on the relevant Technical Committees (e.g., Information Management, Field Methods and Logistics, Fish and Invertebrates);
- iii. Field sampling at sea;
- iv. Trawl sample analysis; and,
- v. Data management

The level of participation in the 2008 survey was consistent with that provided by the Discharger during the 1998 and 2003 Regional Surveys. The next regional survey is expected to take place in 2013 and the Discharger's level of participation shall be consistent with that provided in previous surveys.

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D. Seafood Safety Monitoring

1. Local Seafood Safety Survey

- a. This survey addresses two questions: 1) Where seafood consumption advisories exist locally, do tissue concentrations of contaminants continue to exceed the Advisory Tissue Concentration (ATC)? and 2) What are the tissue contaminant trends relative to the ATC in other species not currently subject to local consumption advisories? The data collected will be used to provide information necessary for the management of local seafood consumption advisories.
- b. One species from each of five groups of fish (rockfish, kelpbass, sandbass, surfperches and croakers) shall be sampled from each of the three zones in years one, three and five of the permit. For rockfishes, scorpionfish (*Scorpaena guttata*) is the preferred species, followed by bocaccio (*Sebastes paucispinis*) and then by any other abundant and preferably benthic rockfish species. For surfperches, black surfperch (*Embiotoca jacksoni*) is the preferred species, followed by white surfperch (*Phanerodon furcatus*) and then by walleye surfperch (*Hyperprosopon argenteum*).
- c. For fish tissue analysis, one composite sample of ten individuals of each target shall be collected within each of the three zones. Sampling should take place within the same season of the year (preferably late summer/early fall) and should focus upon a consistent size class of fish. All tissue samples shall be analyzed for: Mercury, DDTs, PCBs, Aldrin, Dieldrin, Endrin and Chlordane.

2. Regional Seafood Safety Survey

- a. This regional survey addresses the question: "Are seafood tissue levels within the Southern California Bight below levels that ensure public safety?" The data collected will be used to assess levels of contaminants in the edible tissue of commercial or recreationally important fish within the Bight relative to Advisory Tissue Concentrations.
- b. Sampling Design - A regional survey of edible tissue contaminant levels in fish within the Southern California Bight shall be conducted at least once every ten years, encompassing a broader set of sampling sites and target species than those addressed in the local seafood survey. The objective is to determine whether any unexpected increases or decreases in contaminant levels have occurred in non-target species and/or at unsampled sites. The final survey design may be determined cooperatively by participants represented on a Regional Steering Committee or by the State of California's Office of Environmental Health and Hazard Assessment. A regional seafood safety survey within the Southern California Bight took place in 2008 (Bight'08). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee and the Surface Water Ambient Monitoring Program (SWAMP). The Discharger provided support to the Bight'08 Seafood Safety Survey by participating in or performing the following activities:
 - i. Participation on the Steering Committee;
 - ii. Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, and Chemistry); and,
 - iii. Tissue chemical analysis.

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This level of participation in the Bight'08 survey was consistent with that provided by the Discharger to the previous surveys. The next regional survey is expected to occur in 2013 and the Discharger's level of participation shall be consistent with that provided in previous surveys.

E. Kelp Bed Monitoring

1. This regional survey is to address the question: "Is the extent of kelp beds in the Southern California Bight changing over time and are some beds changing at rates different than others?" The data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to the discharge to be compared to regional trends.
2. The Discharger shall participate in the Central Region Kelp Survey Consortium (CRKSC) to conduct regional kelp bed monitoring in Southern California coastal waters. The CRKSC design is based upon quarterly measures of kelp canopy extent using aerial imaging. The Discharger shall provide up to \$10,000 per year in financial support to the CRKSC (annual level of support will depend on the number of participants in the program). The Discharger shall participate in the regional management and technical committees responsible for the development of the survey design and implementation of the assessment of kelp bed resources in the Bight. This support is intended to ensure that kelp beds in Ventura County are included in the quarterly surveys of kelp beds in the Bight, and that these beds are included in any data products resulting from those surveys.
3. In the event that Ventura County kelp beds are found to deviate from the broader regional pattern, the Discharger will carry out special studies to address unexplained deterioration of local beds.

F. Sampling, Analysis, and Reporting Notes for Receiving Water Monitoring

1. Receiving water monitoring shall be performed during daylight hours.
2. In addition to reporting the actual concentration of bacterial organisms obtained in each sample collected from shoreline, nearshore, and offshore stations, the running median of the latest 6-month period shall also be determined and reported each month. Bacterial data obtained at shoreline stations during or within 48 hours following a major storm event shall not be used in determining medians.
3. Reports regarding receiving water monitoring shall be transmitted with the corresponding effluent monitoring reports. Ocean water quality monitoring (shoreline, nearshore, and offshore components) reports shall be submitted with the effluent reports by the fifteenth day of the second month following the sampling period. The offshore sediment and biological monitoring data shall be submitted with the annual report.
4. Currently, Ventura County monitors nine shoreline stations for bacteriological indicators in the area of Oxnard's previous shoreline monitoring program (see Table 1 in section II).
5. Ventura County shoreline bacteriological monitoring data from these stations shall be included with the bacteriological data from Oxnard's water quality sampling in monthly reports and the annual assessment report.

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Parameter	Unit	Sample Type	Minimum Sampling Frequency	Maximum Level (Minimum Level if applicable)
Acetaminophen	ng/L	To be proposed	Annually	To be proposed
Amoxicillin	ng/L	To be proposed	Annually	To be proposed
Azithromycin	ng/L	To be proposed	Annually	To be proposed
Carbamazepine	ng/L	To be proposed	Annually	To be proposed
Caffeine	ng/L	To be proposed	Annually	To be proposed
Ciprofloxacin	ng/L	To be proposed	Annually	To be proposed
N,N-Diethyl-m-toluamide (DEET)	ng/L	To be proposed	Annually	To be proposed
Dilantin	ng/L	To be proposed	Annually	To be proposed
Gemfibrozil	ng/L	To be proposed	Annually	To be proposed
Ibuprofen	ng/L	To be proposed	Annually	To be proposed
Lipitor (Atorvastatin)	ng/L	To be proposed	Annually	To be proposed
Iodinated contrast media (Iopromide)	ng/L	To be proposed	Annually	To be proposed
Sulfamethoxazole	ng/L	To be proposed	Annually	To be proposed
Trimethoprim	ng/L	To be proposed	Annually	To be proposed
Salicylic acid	ng/L	To be proposed	Annually	To be proposed
TCEP, TCPP and TDCPP	ng/L	To be proposed	Annually	To be proposed
Triclosen	ng/L	To be proposed	Annually	To be proposed
Bifenthrin	ng/L	To be proposed	Annually	To be proposed
Permethrin	ng/L	To be proposed	Annually	To be proposed
Chlorpyrifos	ng/L	To be proposed	Annually	To be proposed
Galaxolide	ng/L	To be proposed	Annually	To be proposed
Diclofenac	ng/L	To be proposed	Annually	To be proposed
Butylbenzyl Phthalate	ng/L	To be proposed	Annually	To be proposed
Perfluorooctene Sulfonate (PFOS)	ng/L	To be proposed	Annually	To be proposed
Flpronil	ng/L	To be proposed	Annually	To be proposed
Maprobamate	ng/L	To be proposed	Annually	To be proposed

B. Outfall and Diffuser Inspection

An annual survey shall be performed in October or November. This shall consist of:

1. An examination of the outfall and diffuser port system for plugs, leaks, rotation, and flow distribution. A detailed structural analysis of the pipes every five years submitted with the Report of Waste Discharge (ROWD) shall be conducted using underwater television/videotape and submarine visual inspection, where appropriate, to provide a

Attachment E – MRP (Adopted Order: June 6, 2013)

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comprehensive report on the discharge pipe systems from shallow water to their respective termini. The annual visual inspection shall be conducted on the external condition of the outfall, diffuser, and ballast systems. A written report documenting conditions shall be prepared and submitted with the Annual Summary Report to this Regional Water Board.

2. A visual inspection at and in the vicinity of the outfall and diffuser port system to determine thickness of any "cloud" of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. Inspections shall include general observations and photographic records of the outfall pipe and the surrounding ocean bottom. A report (including photographs) discussing the above information shall be submitted with the Annual Summary Report to this Regional Water Board.

C. Sludge Monitoring and Reporting

1. The Discharger must comply with all requirements of 40 CFR parts 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements.
2. The Discharger must comply with the monitoring and reporting requirements outlined in Attachment I in this Order, [Biosolids/Sludge Management].
3. A monthly report shall be provided, noting the moisture content, weight, and volume of screenings, sludges, grit, and other solids removed from the wastewater. The point(s) from which these wastes were obtained and the disposal sites to which waste solids are transported shall be specified in the monthly reports.

IX. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

B. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS website will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

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2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through VIII. The Discharger shall submit monthly, quarterly, semiannual, annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Hourly	Permit effective date	Hourly	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	By the 15 th day of the second month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 15 February 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 15

4. The Discharger shall submit SMRs in accordance with the following requirements:
 - a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

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- c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D). Paper SMRs should be converted to a Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed below: (Reference the reports to Compliance File No. 2022 to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attention: Information Technology Unit

Dischargers who have been certified to only submit electronic SMRs to CIWQS should continue doing so, as previously required.

C. Discharge Monitoring Reports (DMRs)

- As described in section IX.B.1 above, at any time during the term of this permit, the state or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
- DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

Standard Mail	Federal/PS/Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

- All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (USEPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of USEPA Form 3320-1.

D. Other Reports

1. Annual Summary Report

By April 15 of each year, the Discharger shall submit an annual summary report containing a discussion of the previous year's Influent/Effluent analytical results and receiving water bacterial monitoring data. The annual summary report shall also contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system, and sewer and plant maintenance activities. The Discharger shall submit an electronic annual report to the Regional Water Board in accordance with the requirements described in subsection B.4 above.

CITY OF OXNARD
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Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
- b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;
- c. The concentration of the pollutant(s);
- d. The test method used to analyze the sample; and,
- e. The date and time of sample collection.

The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantiles of each. Any subsequent changes in types and/or quantiles shall be reported promptly.

2. Receiving Water Monitoring Report

An annual summary of the receiving water monitoring data collected during each sampling year (January-December) shall be prepared and submitted so that it is received by the Regional Water Board by August 15 of the following year.

A detailed receiving water monitoring biennial assessment report of the data collected during the two previous calendar sampling years (January-December) shall be prepared and submitted so that it is received by the Regional Water Board by August 15 of every other year. This report shall include an annual data summary and shall also include an in-depth analysis of the biological and chemical data following recommendations in the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.E. Welsberg. 2001. Model Monitoring Program for Large Ocean Dischargers in Southern California. SCCWRP Tech. Rep #357. SCCWRP, Westminster, CA. 101 pp.). Data shall be tabulated, summarized, and graphed where appropriate, analyzed, interpreted, and generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relation of physical and chemical parameters to biological parameters shall be evaluated. See, also, section V.G. of this MRP. All receiving water monitoring data shall be submitted in accordance with the data submittal formats developed for the Southern California Bight Regional Monitoring Surveys.

The first assessment report shall be due August 15, 2015, and cover the sampling periods of January-December 2013 and January-December 2014. Subsequent reports shall be due August 1, 2017, and August 1, 2019, to cover sampling periods of January 2015-December 2016 and January 2017-December 2018, respectively.

3. Outfall Inspection Report

A summary report of the Outfall Inspection findings shall be provided annually. This written report, augmented with videographic and/or photographic images, shall provide a

CITY OF OXNARD
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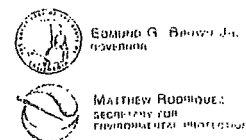
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description of the observed external condition of the discharge pipes from shallow water to their respective termini. This report shall be submitted so that it is received by August 15 of the following year.

Attachment E – MRP (Adopted Order: June 6, 2013)

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ATTACHMENT E1



Los Angeles Regional Water Quality Control Board

May 31, 2018

Mr. Badaoui Mouderrres, P.E.
 Technical Services & Water Quality Manager
 Wastewater Division, Public Works Department
 City of Oxnard
 6001 South Perkins Road
 Oxnard, California 93033-9047

Dear Mr. Mouderrres,

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) received your letter, *The City of Oxnard's 2018 Southern CA Bight Regional Monitoring Program, Resource Allocation (NPDES Permit CA0054097, Order No. R4-2013-0094)*, dated on April 18th, 2018. This letter outlined the City of Oxnard's plans to participate in the 2018 Southern California Bight Regional Monitoring Program (Bight '18). Bight '18 is in its sixth iteration of an ongoing marine monitoring collaboration that runs in five-year cycles and is facilitated by the Southern California Coastal Water Research Project (SCCWRP). As it has done in the past, the City will reallocate resources from its routine annual receiving water monitoring as required by the NPDES permit to fund activities associated with the Bight '18 program. The City proposed in this letter several revisions to its existing NPDES monitoring and reporting program.

To ensure the resources are available for the City's participation in Bight '18, the City proposed the following resource exchanges from 2018 through 2019:

- The City will suspend the "Local Seafood Safety" sampling effort as part of the NPDES permit requirements and instead reallocate sources to support Bight '18 water quality and benthic sediment monitoring to fulfill the NPDES requirement.
- The City will suspend conducting "Special Studies" and tissue monitoring as part of the NPDES permit requirements and instead participate in Bight '18 ocean acidification (OA) study and harmful algal blooms (HABs) study to fulfill the NPDES requirement.

The suspension of the "Local Seafood Safety" is justified by the fact that the City already conducted sampling in September & October 2014, October 2015 and September 2017 and thus fulfilled the "Local Seafood Safety" sampling requirement for the existing NPDES permit. In addition, the State of California Bioaccumulation Monitoring Program intends on sampling all the sportfishing zones in Southern California in summer 2018 in conjunction with the Bight '18 program and the analyses for the fish tissue samples will be conducted by other agencies participating in Bight '18. The City will suspend "Local Seafood Safety" sampling in 2018 and 2019 and will resume sampling in 2020. The suspension of the "Special Studies" is justified by the fact that the Bight '18 OA study and HABs study are designed to develop novel sampling methods to address outstanding management questions. The City's participation in both studies can fulfill the "Special Studies" requirement for 2018 and 2019. The City will resume conducting "Special Studies" in 2020.

Mr. Badaoui Mouderrès

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May 31, 2018

This letter serves to approve the modifications of the NPDES monitoring program as outlined above from 2018 through 2019.

Water Quality Monitoring

In support of the Bight '18 OA study and HABs study, two sampling efforts will be added to the City's existing water quality monitoring:

- As part of the OA committee effort, vertical and/or oblique bongo net tows will be conducted for up to six stations at depths ranging from 400 to 500 meters (m), quarterly for two years starting in fall 2018 or winter 2019. Each of these tows will require additional two ship days per quarter for a total of eight boat days over the two-year time period. Pteropods (Mollusca) will be collected from these tows and assessed for the potential deterioration of their calcareous shells due to ocean acidification.
- As part of the HABs committee effort, the City will deploy caged mussels in the coastal ocean near the mouth of the Santa Clara River. These arrays will be deployed over a four-month period beginning in fall 2018 and ending in winter 2019. A total of eight visits (2 per month) will be made by the City to collect subsets of mussels for cyanotoxin analysis.

To offset the costs associated with these additional monitoring activities, the City proposed the following resource exchanges from 2018 through 2019:

- Eliminate quarterly discrete sampling for ammonia.
- Reduce the collection of indicator bacteria (total and fecal coliforms and enterococcus) from three transects to two transects.
- Allocate the effort used to deploy and analyze caged mussels (as required by the NPDES permit) to deploying mussel arrays for the HABs study described above.

The elimination of ammonia sampling is justified by the fact that ammonia concentrations are nearly always at or below method detection limit. The reduction of bacteria sampling is justified by the fact that bacteria concentrations have not been elevated to concentrations near Ocean Plan standards over the past decade. The HABs study will cover mussel sampling in 2018.

This letter will serve to approve the modifications of the NPDES monitoring program as outlined above for fiscal year (FY) 2018-2019 (July 1, 2018 to June 30, 2019).

Benthic Sediment Monitoring

The City will also provide resources for the following elements in benthic sediment monitoring within the Bight '18 program:

- The City will collect sediment samples at twenty-nine locations and trawls at twenty-four locations in near coastal waters, to a depth not to exceed 200 m. This is in keeping with the spatial extent and effort expended during the past Bight surveys in 2008 and 2013.
- Instead of analyzing seven sediment samples for in fauna (sorting and taxonomy), the City will analyze eighteen samples.
- Instead of analyzing six sediment samples for toxicity, the City will analyze fifteen sediment samples for toxicity. Each sample will be tested using the bivalve (*Mytilus sp.*) sediment interface test.
- The City will provide the effort to collect domoic acid samples at each of the twenty-nine sites in near coastal water described above.
- The City will participate in the enumeration of trash and marine debris in all trawls collected during the Bight '18 survey, as requested by the Bight '18 Trawl Committee.

Mr. Badaoui Mouderrres

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May 31, 2018

- The City will provide all the quality assurance, data management, data analysis and reporting effort expended during one year to the Bight '18 program through participation in the reporting and review process conducted by the technical and management workgroups.

To offset the costs associated with these sampling and analysis efforts, the City requests to reallocate the following annual NDPES monitoring resources:

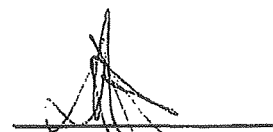
- Instead of analyzing seven sediment samples for the full suite of chemical constituents found in the permit, the City will analyze twenty-nine sediment samples for a subset of the full Bight '18 analyte list, which includes chlorinated hydrocarbons, PCBs and PAHs. The City will not analyze the following analytes found in the permit, including dissolved sulfides, percent solids, trace metals, trace mercury, grain size, total Kjeldahl nitrogen, total organic carbon, total cyanide, acid extractable compounds and toxaphene.

This letter will serve to approve the modifications of the NPDES monitoring program as outlined above for FY2018-2019 (July 1, 2018 to June 30, 2019).

The reallocations of monitoring resources described above will allow the City of Oxnard to maintain monitoring of key water quality parameters while also helping to implement the Bight '18 OA study and HABs study. We appreciate your interest and cooperation in participating in these important studies.

If you have any further questions, please contact Jun Zhu at (213) 576-6681 or Elizabeth Erickson at (213) 576-6665.

Sincerely,



Deborah J. Smith
Executive Officer

cc: Terry Fleming, U.S. Environmental Protection Agency, Region IX (WTR-2)
Ken Schiff, Southern California Coastal Water Research Project
Thien Ng, City of Oxnard
Vince Ines, City of Oxnard
Scott Johnson, Aquatic Bioassay Consulting Laboratories, INC

EXHIBIT B

**Aquatic Bioassay & Consulting Laboratories
Professional Services Fee Schedule ¹.**

Principal Scientist \$ 180

Scientist \$ 150

Senior Biologist \$ 105

Biologist \$ 95

Field Technician \$ 75

Laboratory Technician \$ 75

1. Fees do not include per diem, equipment or travel
These rates are not to be reproduced or distributed



May, 2016

Exhibit INS-A

INSURANCE REQUIREMENTS FOR CONSULTANTS
(WITH ERRORS AND OMISSIONS REQUIREMENT)

1. Consultant shall obtain and maintain during the performance of any services under this Agreement the following insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of services hereunder by Consultant, its agents, representatives, employees or subconsultants.

a. Commercial General Liability Insurance, including Contractual Liability, in an amount not less than \$1,000,000 combined single limit for bodily injury and property damage for each claimant for general liability with coverage equivalent to Insurance Services Office Commercial General Liability Coverage (Occurrence Form CG 0001). If a general aggregate limit is used, that limit shall apply separately to the project or shall be twice the occurrence amount;

b. Business automobile liability insurance in an amount not less than \$1,000,000 combined single limit for bodily injury and property damage for each claimant for automobile liability with coverage equivalent to Insurance Services Office automobile liability coverage (Occurrence Form CA0001) covering Code No. 1, "any auto;"

c. Professional liability/errors and omissions insurance appropriate to Consultant's profession to a minimum coverage of \$1,000,000, with neither Consultant nor listed subconsultants having less than \$500,000 individually. The professional liability/errors and omissions insurance must be project specific with at least a one year extended reporting period, or longer upon request.

d. Workers' compensation insurance in compliance with the laws of the State of California, and employer's liability insurance in an amount not less than \$1,000,000 per claimant. Additionally, the workers' compensation policy shall include a waiver of all rights of subrogation which the insurer may have against the City.

2. Consultant shall, prior to performance of any services, file with the Risk Manager certificates of insurance with original endorsements effecting coverage required by this Exhibit INS-A. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on the attached forms or on other forms approved by the Risk Manager. All certificates and endorsements are to be received and approved by the Risk Manager before commencement of services. City reserves the right to require complete certified copies of all required insurance policies at any time. The certificates of insurance and endorsements shall be sent via email (or fax if necessary) to the Risk Manager, addressed as follows (do not send hard copies):

City of Oxnard
Insurance Compliance
Reference No. A-8093
P.O. Box 100085 - OX
Duluth, GA 30096
Via Email: cityofoxnard@ebix.com
Via Fax: 678-259-1007

3. Consultant agrees that all insurance coverages shall be provided by a California admitted insurance carrier with an A.M. Best rating of A:VII or better and shall be endorsed to state that coverage may not be suspended, voided, canceled, or reduced in coverage or limits without 30 days' prior written notice to the Risk Manager. The Risk Manager shall not approve or accept any endorsement if the endorsement contains "best effort" modifiers or if the insurer is relieved from the responsibility to give such notice.

4. Consultant agrees that the commercial general liability and business automobile liability insurance policies shall be endorsed to name City, its City Council, officers, employees, agents and volunteers as additional insureds as respects: liability arising out of activities performed by or on behalf of Consultant; products and completed operations of Consultant; premises owned, occupied or used by Consultant; or automobiles owned, leased, hired or borrowed by Consultant. The coverage shall contain no special limitations on the scope of protection afforded to City, its City Council, officers, employees, agents and volunteers. **The General Liability Special Endorsement Form and Automobile Liability Special Endorsement Form attached to this Exhibit INS-A or substitute forms containing the same information and acceptable to the Risk Manager shall be used to provide the endorsements (ISO form CG 2010 11/85 or if not available, CG 2010 with an edition date prior to 01/04 and CG 2037).**

5. The coverages provided to City shall be primary and not contributing to or in excess of any existing City insurance or self-insurance coverages (**this must be endorsed**). Additionally, the workers' compensation policy shall include a waiver of all rights of subrogation which the insurer may have against the City. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its City Council, officers, employees and volunteers. The insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

6. The insurer shall declare any deductibles or self-insured retentions to and be approved by the Risk Manager. At the option of the Risk Manager, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its City Council, officers, employees and volunteers, or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

7. All insurance standards applicable to Consultant shall also be applicable to Consultant's subconsultants. Consultant agrees to maintain appropriate agreements with subconsultants and to provide proper evidence of coverage upon receipt of a written request from the Risk Manager.

Agreement No. A-8093

INSTRUCTION FOR SUBMITTING INSURANCE CERTIFICATES AND ENDORSEMENT FORMS*Certificates of Insurance*

The sample accord form on the following page is provided to facilitate your preparation and submission of certificates of insurance. You may use this or any industry form that shows coverage as broad as that shown on the attached sample. **Please note the certificate holder address must be as shown on the attached sample accord form with the contract number and insurance exhibit identification information completed.** Improperly addressed certificates may delay the contract start-up date because the City's practice is to return unidentifiable insurance certificates to the insured for clarification as to the contract number. **Cancellation provisions must be endorsed to the policy. Modifying the certificate does not change coverage or obligate the carrier to provide notice of cancellation.**

Endorsement Forms

Original endorsements are required for commercial general liability and business automobile liability insurance policies and must be attached to the applicable certificate of insurance. City preference is that the Consultant/insurer use the endorsement forms which are attached. Substitute forms will be accepted, however, as long as they include provisions comparable to the sample accord form.

INS-A.doc

Agreement No. A-8093

ACORD CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

PRODUCER

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

CODE

SUB-CODE

COMPANIES AFFORDING INSURANCE COVERAGE

INSURED

COMPANY
LETTER A

SPECIFY COMPANY NAMES IN THIS SPACE

COMPANY
LETTER B**COVERAGES**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY [x] COMMERCIAL GENERAL LIABILITY [] CLAIMS MADE [x] OCCUR. [x] OWNER'S & CONTRACTOR'S PROT				GENERAL AGGREGATE \$1,000,000 PRODUCTS COMP/OP AGG. \$1,000,000 PERSONAL & ADV. INJURY \$1,000,000 EACH OCCURRENCE \$1,000,000 FIRE DAMAGE (Any one fire) \$ MED. EXPENSE (Any one person) \$
A	AUTOMOBILE LIABILITY [x] ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS GARAGE LIABILITY				COMBINED SINGLE \$1,000,000 LIMIT BODILY INJURY \$ (Per person) BODILY INJURY \$ (Per accident) PROPERTY DAMAGE \$
A	EXCESS LIABILITY UMBRELLA FORM OTHER THAN UMBRELLA FORM				EACH OCCURRENCE \$ AGGREGATE \$
A	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY LIMITS EACH ACCIDENT \$1,000,000 DISEASE-POLICY LIMIT \$1,000,000 DISEASE-EACH EMPLOYEE \$1,000,000
A	OTHER Errors and omissions insurance or malpractice insurance available for the insured's profession				Minimum coverage \$1,000,000 Each consultant/ & listed sub-consultant \$500,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS**CERTIFICATE HOLDER****CITY OF OXNARD****Attn: Insurance Compliance****Reference No. A-8093****P.O. Box 100085 - OX****Duluth, GA 30096****Via Email: cityofoxnard@ebix.com****Via Fax: 678-259-1007****CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

AUTOMOBILE LIABILITY SPECIAL ENDORSEMENT FOR THE CITY OF OXNARD (the "City")		SUBMIT IN DUPLICATE	
		ENDORSEMENT NO	ISSUE DATE (MM/DD/YY)
PRODUCER		POLICY INFORMATION: Insurance Company: Policy No.: Policy Period: (from) (to) LOSS ADJUSTMENT EXPENSE <input type="checkbox"/> Included in Limits <input type="checkbox"/> In Addition to Limits	
Telephone:		<input type="checkbox"/> Deductible <input type="checkbox"/> Self-Insured Retention (check which) of \$ _____ applies to _____ coverage <input type="checkbox"/> Per Occurrence <input type="checkbox"/> Per Claim (which)	
NAMED INSURED		APPLICABILITY. This insurance pertains to the operations, products and/or tenancy of the named insured under all written agreements and permits in force with the City unless checked here <input type="checkbox"/> in which case only the following specific agreements and permits with the City are covered: CITY AGREEMENTS/PERMITS	
TYPE OF INSURANCE <input type="checkbox"/> COMMERCIAL AUTO POLICY <input type="checkbox"/> BUSINESS AUTO POLICY <input type="checkbox"/> OTHER		OTHER PROVISIONS	
LIMIT OF LIABILITY \$ _____ per accident, for bodily injury and property damage.		CLAIMS: Underwriter's representative for claims pursuant to this insurance. Name: _____ Address: _____ Telephone: () _____	
In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, insurance company agrees as follows: 1. INSURED. The City, its officers, agents, volunteers and employees are included as insureds with regard to liability and defense of suits arising from the operations, products and activities performed by or on behalf of the named insured. 2. CONTRIBUTION NOT REQUIRED. As respects: (a) work performed by the named insured for or on behalf of the City; or (b) products sold by the named insured to the City, or (c) premises leased by the named insured from the City, the insurance afforded by this policy shall be primary insurance as respects the City, its officers, agents, employees or volunteers; or stand in an unbroken chain of coverage excess of the named insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the City, its officers, agents, employees or volunteers shall be in excess of this insurance and shall not contribute with it. 3. SEVERABILITY OF INTEREST. This insurance applies separately to each insured against whom claim is made or suit is brought except with respect to the company's limits of liability. The inclusion of any person or organization as an insured shall not affect any right which such person or organization would have as a claimant if not so included. 4. CANCELLATION NOTICE. With respect to the interests of the City, this insurance shall not be canceled, or materially reduced in coverage or limits except after thirty (30) days prior written notice by receipted delivery has been given to the City. 5. PROVISIONS REGARDING THE INSURED'S DUTIES. Any failure to comply with reporting provisions of the policy or breaches or violations of warranties shall not affect coverage provided to the City, its officers, agents, employees or volunteers 6. SCOPE OF COVERAGE. This policy, if primary, affords coverage at least as broad as: a Insurance Services Office Automobile Liability Coverage, "occurrence" form CA0001, code ("any auto"); or b If excess, affords coverage which is at least as broad as the primary insurance form referenced in the preceding section (1). Except as stated above nothing herein shall be held to waive, alter or extend any of the limits, conditions, agreements or exclusions of the policy to which this endorsement is attached.			
ENDORSEMENT HOLDER			
CITY OF OXNARD Attn: Insurance Compliance Reference No. A-8093 P.O. Box 100085 - OX Duluth, GA 30096 Via Email: cityofoxnard@ebix.com Via Fax: 678-259-1007		AUTHORIZED REPRESENTATIVE <input type="checkbox"/> Broker/Agent <input type="checkbox"/> Underwriter <input type="checkbox"/> I _____ (print/type name), warrant that I have authority to bind the above-mentioned insurance company and by my signature hereon do so bind this company to this endorsement Signature _____ (original signature required) Telephone: () Date Signed _____	

Attachment E-1

EDMUND G. BROWN JR.
GOVERNORMATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

May 31, 2018

Mr. Badaoui Mouderrres, P.E.
 Technical Services & Water Quality Manager
 Wastewater Division, Public Works Department
 City of Oxnard
 6001 South Perkins Road
 Oxnard, California 93033-9047

Dear Mr. Mouderrres,

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) received your letter, *The City of Oxnard's 2018 Southern CA Bight Regional Monitoring Program, Resource Allocation (NPDES Permit CA0054097, Order No. R4-2013-0094)*, dated on April 18th, 2018. This letter outlined the City of Oxnard's plans to participate in the 2018 Southern California Bight Regional Monitoring Program (Bight '18). Bight '18 is in its sixth iteration of an ongoing marine monitoring collaboration that runs in five-year cycles and is facilitated by the Southern California Coastal Water Research Project (SCCWRP). As it has done in the past, the City will reallocate resources from its routine annual receiving water monitoring as required by the NPDES permit to fund activities associated with the Bight '18 program. The City proposed in this letter several revisions to its existing NPDES monitoring and reporting program.

To ensure the resources are available for the City's participation in Bight '18, the City proposed the following resource exchanges from 2018 through 2019:

- The City will suspend the "Local Seafood Safety" sampling effort as part of the NPDES permit requirements and instead reallocate sources to support Bight '18 water quality and benthic sediment monitoring to fulfill the NPDES requirement.
- The City will suspend conducting "Special Studies" and tissue monitoring as part of the NPDES permit requirements and instead participate in Bight '18 ocean acidification (OA) study and harmful algal blooms (HABs) study to fulfill the NPDES requirement.

The suspension of the "Local Seafood Safety" is justified by the fact that the City already conducted sampling in September & October 2014, October 2015 and September 2017 and thus fulfilled the "Local Seafood Safety" sampling requirement for the existing NPDES permit. In addition, the State of California Bioaccumulation Monitoring Program intends on sampling all the sportfishing zones in Southern California in summer 2018 in conjunction with the Bight '18 program and the analyses for the fish tissue samples will be conducted by other agencies participating in Bight '18. The City will suspend "Local Seafood Safety" sampling in 2018 and 2019 and will resume sampling in 2020. The suspension of the "Special Studies" is justified by the fact that the Bight '18 OA study and HABs study are designed to develop novel sampling methods to address outstanding management questions. The City's participation in both studies can fulfill the "Special Studies" requirement for 2018 and 2019. The City will resume conducting "Special Studies" in 2020.

HADELYN GLICKFELD, CHAIR | DEBORAH J. SMITH, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

♻️ RECYCLED PAPER

Mr. Badaoui Mouderrès

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May 31, 2018

This letter serves to approve the modifications of the NPDES monitoring program as outlined above from 2018 through 2019.

Water Quality Monitoring

In support of the Bight '18 OA study and HABs study, two sampling efforts will be added to the City's existing water quality monitoring:

- As part of the OA committee effort, vertical and/or oblique bongo net tows will be conducted for up to six stations at depths ranging from 400 to 500 meters (m), quarterly for two years starting in fall 2018 or winter 2019. Each of these tows will require additional two ship days per quarter for a total of eight boat days over the two-year time period. Pteropods (Mollusca) will be collected from these tows and assessed for the potential deterioration of their calcareous shells due to ocean acidification.
- As part of the HABs committee effort, the City will deploy caged mussels in the coastal ocean near the mouth of the Santa Clara River. These arrays will be deployed over a four-month period beginning in fall 2018 and ending in winter 2019. A total of eight visits (2 per month) will be made by the City to collect subsets of mussels for cyanotoxin analysis.

To offset the costs associated with these additional monitoring activities, the City proposed the following resource exchanges from 2018 through 2019:

- Eliminate quarterly discrete sampling for ammonia.
- Reduce the collection of indicator bacteria (total and fecal coliforms and enterococcus) from three transects to two transects.
- Allocate the effort used to deploy and analyze caged mussels (as required by the NPDES permit) to deploying mussel arrays for the HABs study described above.

The elimination of ammonia sampling is justified by the fact that ammonia concentrations are nearly always at or below method detection limit. The reduction of bacteria sampling is justified by the fact that bacteria concentrations have not been elevated to concentrations near Ocean Plan standards over the past decade. The HABs study will cover mussel sampling in 2018.

This letter will serve to approve the modifications of the NPDES monitoring program as outlined above for fiscal year (FY) 2018-2019 (July 1, 2018 to June 30, 2019).

Benthic Sediment Monitoring

The City will also provide resources for the following elements in benthic sediment monitoring within the Bight '18 program:

- The City will collect sediment samples at twenty-nine locations and trawls at twenty-four locations in near coastal waters, to a depth not to exceed 200 m. This is in keeping with the spatial extent and effort expended during the past Bight surveys in 2008 and 2013.
- Instead of analyzing seven sediment samples for in fauna (sorting and taxonomy), the City will analyze eighteen samples.
- Instead of analyzing six sediment samples for toxicity, the City will analyze fifteen sediment samples for toxicity. Each sample will be tested using the bivalve (*Mytilus sp.*) sediment interface test.
- The City will provide the effort to collect domoic acid samples at each of the twenty-nine sites in near coastal water described above.
- The City will participate in the enumeration of trash and marine debris in all trawls collected during the Bight '18 survey, as requested by the Bight '18 Trawl Committee.

Mr. Badaoui Mouderrres

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May 31, 2018

- The City will provide all the quality assurance, data management, data analysis and reporting effort expended during one year to the Bight '18 program through participation in the reporting and review process conducted by the technical and management workgroups.

To offset the costs associated with these sampling and analysis efforts, the City requests to reallocate the following annual NPDES monitoring resources:

- Instead of analyzing seven sediment samples for the full suite of chemical constituents found in the permit, the City will analyze twenty-nine sediment samples for a subset of the full Bight '18 analyte list, which includes chlorinated hydrocarbons, PCBs and PAHs. The City will not analyze the following analytes found in the permit, including dissolved sulfides, percent solids, trace metals, trace mercury, grain size, total Kjeldahl nitrogen, total organic carbon, total cyanide, acid extractable compounds and toxaphene.

This letter will serve to approve the modifications of the NPDES monitoring program as outlined above for FY2018-2019 (July 1, 2018 to June 30, 2019).

The reallocations of monitoring resources described above will allow the City of Oxnard to maintain monitoring of key water quality parameters while also helping to implement the Bight '18 OA study and HABs study. We appreciate your interest and cooperation in participating in these important studies.

If you have any further questions, please contact Jun Zhu at (213) 576-6681 or Elizabeth Erickson at (213) 576-6665.

Sincerely,


Deborah J. Smith
Executive Officer

cc: Terry Fleming, U.S. Environmental Protection Agency, Region IX (WTR-2)
Ken Schiff, Southern California Coastal Water Research Project
Thien Ng, City of Oxnard
Vince Ines, City of Oxnard
Scott Johnson, Aquatic Bioassay Consulting Laboratories, INC

APPROVAL OF FIRST AMENDMENT TO AGREEMENT FOR ONGOING WATER QUALITY SAMPLING, A NUTRIENT STUDY, AND A LONG-TERM WATER QUALITY PLAN AT THE CHANNEL ISLANDS HARBOR

Presented to:
City Council

November 13, 2018

BACKGROUND

- In June 2018, the Channel Islands Harbor experienced a water degradation event, resulting in discoloration of the water and a small amount of marine life death
- City staff quickly mobilized, forming a response team, setting up a hotline number for the public, and performing daily water quality testing across the harbor

- On July 5, 2018 the City Council approved the Fifth Amendment to Agreement No. A-7620 for \$72,650, to provide for water quality sampling, nutrient analysis, program management and presentations to the public
- Those funds have been expended and the City is ready to proceed with next steps in addressing this issue
- The prior Agreement No. A-7620 expired and a new RFP was released in May of 2018. On July 24, 2018, the Council awarded Aquatic Bioassay & Consulting Laboratories, Inc. Agreement No. A-8093

- This first amendment to Agreement No. A-8093, totaling \$306,045, will utilize the previous analysis by Aquatic Bioassay to begin the next phase of determining the potential causes, solutions and long term plan for the water degradation issue in the Channel Islands Harbor

The scope of work for this first amendment consists of:

- Completion of a nutrient sources and sinks study
- Recommendation regarding the framework for long-term monitoring that will be ongoing and provide information regarding the status of water quality in the Harbor
- Completion of a hydrologic modeling study of the Harbor to assess current water retention times, including in the back basins and Edison Canal

NEXT STEPS

District	Percentage Split*	Amount
Waterways Zone 1	55%	\$153,200
Waterways Zone 2	9%	\$25,069
Seabridge CFD 4	23%	\$64,065
Westport CFD 2	13%	\$36,211
General Fund	N/A	\$27,500
		\$306,045

*Percentage split based upon the total surface area of the waterways within each assessment district as determined by GIS mapping

HARBOR SURFACE AREA BY DISTRICT



That the City Council

- Approve and authorize the Mayor to execute, when finalized, the First Amendment to Agreement No. A-8093 with Aquatic Bioassay & Consulting Laboratories, Inc. in the amount of \$306,045 for a new not to exceed total of \$759,933, for ongoing services relating to the Channel Islands Harbor water quality issue; and

That the City Council:

- Authorize a budget appropriation totaling \$278,893, as follows:
 - \$27,500 from the General Fund
 - \$153,200 from Waterways Zone 1
 - \$25,069 from Waterways Zone 2
 - \$36,913 from Seabridge CFD
 - \$36,211 from Westport CFD



QUESTIONS