GENERAL SERVICES CONTRACT Benthic Infauna Sorting and Taxonomic Services Specification No. S-2022-1366BD

This GENERAL SERVICES CONTRACT (hereinafter referred to as "Contract"), is made and entered into as of the date fully executed below, by and between Orange County Sanitation District (hereinafter referred to as "OC San") and Aquatic Bioassay & Consulting Laboratories, Inc. (hereinafter referred to as "Contractor"), and collectively referred to herein as the "Parties."

RECITALS

WHEREAS, OC San desires to retain the services of Contractor for benthic infauna sorting and taxonomic services ("Services") as described in Exhibit "A" attached hereto and incorporated herein by this reference; and

WHEREAS, Contractor is qualified to perform the Services by virtue of experience, training, education, and expertise; and

WHEREAS, OC San desires to engage Contractor to provide the Services; and

WHEREAS, OC San selected Contractor to provide the Services in accordance with Ordinance No. OC SAN-56; and

WHEREAS, on December 15, 2022, OC San's Board of Directors, by minute order, authorized execution of this Contract.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and benefits specified below, the Parties agree as follows:

1. <u>General</u>.

- 1.1 This Contract and all exhibits hereto are made by OC San and the Contractor.
- 1.2 The following exhibits, in order of precedence, are incorporated by reference and made part of this Contract.

Exhibit "A" – Scope of Work Exhibit "B" – Bid Price Form Exhibit "C" – Determined Insurance Requirement Form Exhibit "D" – Contractor Safety Standards Exhibit "E" – Human Resources Policies

- 1.3 In the event of any conflict or inconsistency between the provisions of this Contract and any of the provisions of the exhibits hereto, the provisions in the Contract shall control and thereafter the provisions in the document highest in precedence shall be controlling.
- 1.4 Except as expressly provided otherwise, OC San accepts no liability for any expenses, losses, or actions incurred or undertaken by Contractor as a result of work performed in anticipation of acquisition of the Services by OC San.

- 1.5 Work Hours: All work or meetings with OC San staff shall be scheduled Monday through Friday, between the hours of 7:30 a.m. and 3:30 p.m.
- 1.6 Days: Shall mean calendar days, unless otherwise noted.
- 1.7 OC San holidays (non-working days) are as follows: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, and Christmas Day.
- 1.8 Work: Shall mean all work, labor, and materials necessary to provide the Services.
- 1.9 The provisions of this Contract may be amended or waived only by an amendment executed by authorized representatives of both Parties.
- 1.10 The various headings in this Contract are inserted for convenience only and shall not affect the meaning or interpretation of this Contract or any paragraph or provision hereof.

2. <u>Scope of Work</u>.

- 2.1 Contractor shall perform the Services identified in Exhibit "A" in accordance with generally accepted industry and professional standards.
- 2.2 <u>Modifications to Scope of Work</u>. OC San shall have the right to modify the Scope of Work at any time. All modifications must be made by an amendment signed by both Parties.
- 2.3 <u>Familiarity with Work</u>. By executing this Contract, Contractor warrants that: (a) it has investigated the work to be performed; and (b) it understands the facilities, difficulties, and restrictions of the work under this Contract. Should Contractor discover any latent or unknown condition materially differing from those inherent in the work or as represented by OC San, it shall immediately inform OC San of this and shall not proceed, except at Contractor's risk, until written instructions are received from OC San.
- 2.4 <u>Performance</u>. Time is of the essence in the performance of the provisions hereof.

3. <u>Contract Term</u>.

- 3.1 The term of this Contract shall be for one (1) year commencing on March 1, 2023, and continuing through February 29, 2024.
- 3.2 <u>Renewals</u>. At its sole discretion, OC San may exercise the option to renew this Contract for up to four (4) one-year periods. This Contract may be renewed by an OC San Purchase Order. OC San shall have no obligation to renew the Contract nor to give a reason if it elects not to renew it.
- 3.3 <u>Extensions</u>. The term of this Contract may be extended only by an amendment signed by both Parties.

4. <u>Compensation</u>.

- 4.1 As compensation for the Services provided under this Contract, OC San shall pay Contractor a total amount not to exceed Two Hundred Thousand Dollars (\$200,000.00).
- 4.2 Contractor shall provide OC San with all required premiums and/or overtime work at no charge beyond the amount specified above.

5. <u>Payments and Invoicing</u>.

- 5.1 OC San shall pay itemized invoices for work completed in accordance with Exhibit "A" at the prices identified in Exhibit "B" thirty (30) days from receipt of the invoice and after approval by OC San's Project Manager or designee. OC San shall be the determining party, in its sole discretion, as to whether the Services have been satisfactorily completed.
- 5.2 Contractor shall submit its invoices to OC San Accounts Payable by electronic mail to <u>APStaff@OCSan.gov</u>. In the subject line include "INVOICE" and the Purchase Order Number.

6. California Department of Industrial Relations Registration and Record of Wages.

- 6.1 To the extent Contractor's employees and/or its subcontractors perform work related to this Contract for which Prevailing Wage Determinations have been issued by the California Department of Industrial Relations (DIR) as more specifically defined under Labor Code section 1720 et seq., prevailing wages are required to be paid for applicable work under this Contract. It is Contractor's responsibility to interpret and implement any prevailing wage requirements and Contractor agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws.
- 6.2 Contractor and its subcontractors shall comply with the registration requirements of Labor Code section 1725.5. Pursuant to Labor Code section 1771.4(a)(1), the work is subject to compliance monitoring and enforcement by the California Department of Industrial Relations (DIR).
- 6.3 Pursuant to Labor Code section 1773.2, a copy of the prevailing rate of per diem wages is available upon request at OC San's principal office. The prevailing rate of per diem wages may also be found at the DIR website for prevailing wage determinations at http://www.dir.ca.gov/DLSR/PWD.
- 6.4 Contractor and its subcontractors shall comply with the job site notices posting requirements established by the Labor Commissioner per Title 8, California Code of Regulations section 16461(e). Pursuant to Labor Code sections 1773.2 and 1771.4(a)(2), Contractor shall post a copy of the prevailing rate of per diem wages at the job site.
- 6.5 Contractor and its subcontractors shall maintain accurate payroll records and shall comply with all the provisions of Labor Code section 1776. Contractor and its subcontractors shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3). Pursuant to Labor Code section 1776, the Contractor and its subcontractors shall furnish a copy of all certified payroll records to OC San and/or the general public upon request, provided the public request is made through OC San, the Division of Apprenticeship Standards, or the Division of Labor Code section 1776(h), penalties for non-compliance with a request for payroll records may be deducted from progress payments.
 - 6.5.1 As a condition to receiving payments, Contractor agrees to present to OC San, along with any request for payment, all applicable and necessary certified payrolls

and other required documents for the period covering such payment request. Pursuant to Title 8, California Code of Regulations section 16463, OC San shall withhold any portion of a payment, up to and including the entire payment amount, until certified payroll forms and any other required documents are properly submitted. In the event certified payroll forms do not comply with the requirements of Labor Code section 1776, OC San may continue to withhold sufficient funds to cover estimated wages and penalties under the Contract.

- 6.6 The Contractor and its subcontractors shall comply with Labor Code section 1774 and section 1775. Pursuant to Labor Code section 1775, the Contractor and any of its subcontractors shall forfeit to OC San a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any work.
 - 6.6.1 In addition to the penalty and pursuant to Labor Code section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or its subcontractor.
- 6.7 Contractor and its subcontractors shall comply with Labor Code sections 1810 through 1815. Contractor and its subcontractors shall restrict working hours to eight (8) hours per day and forty (40) hours per week, except that work performed in excess of those limits shall be permitted upon compensation for all excess hours worked at not less than one and one-half (1.5) times the basic rate of pay, as provided in Labor Code section 1815. The Contractor shall forfeit, as a penalty to OC San, twenty-five dollars (\$25) per worker per calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Labor Code sections 1810 through 1815.
- 6.8 Contractor and its subcontractors shall comply with Labor Code sections 1777.5, 1777.6, and 1777.7 concerning the employment of apprentices by Contractor or any subcontractor.
- 6.9 Contractor shall include, at a minimum, a copy of the following provisions in any contract it enters into with any subcontractor: Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860, and 1861.
- 6.10 Pursuant to Labor Code sections 1860 and 3700, the Contractor and its subcontractors will be required to secure the payment of compensation to employees. Pursuant to Labor Code section 1861, Contractor, by accepting this contract, certifies that:

"I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

Contractor shall ensure that all its contracts with its subcontractors provide the provision above.

- 7. <u>Damage to OC San's Property</u>. Any of OC San's property damaged by Contractor, any subcontractor, or by the personnel of either will be subject to repair or replacement by Contractor at no cost to OC San.
- 8. <u>Freight (F.O.B. Destination</u>). Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.
- **9.** <u>Audit Rights</u>. Contractor agrees that, during the term of this Contract and for a period of three (3) years after its expiration or termination, OC San shall have access to and the right to examine any directly pertinent books, documents, and records of Contractor relating to the invoices submitted by Contractor pursuant to this Contract.
- 10. <u>Contractor Safety Standards and Human Resources Policies</u>. OC San requires Contractor and its subcontractor(s) to follow and ensure their employees follow all Federal, State, and local regulations as well as the Contractor Safety Standards while working at OC San locations. If, during the course of the Contract, it is discovered that the Contractor Safety Standards do not comply with Federal, State, or local regulations, the Contractor is required to follow the most stringent regulatory requirement at no additional cost to OC San. Contractor, its subcontractors, and all of their employees shall adhere to the safety requirements in Exhibit "A," all applicable Contractor Safety Standards in Exhibit "D," and the Human Resources Policies in Exhibit "E."
- **11.** <u>Insurance</u>. Contractor and all its subcontractors shall purchase and maintain, throughout the term of this Contract and any periods of warranty or extensions, insurance in amounts equal to the requirements set forth in the signed Exhibit "C" Determined Insurance Requirement Form. Contractor shall not commence work under this Contract until all required insurance is obtained in a form acceptable to OC San, nor shall Contractor allow any subcontractor to commence service pursuant to a subcontract until all insurance required of the subcontractor has been obtained. Failure to obtain and maintain the required insurance coverage shall result in termination of this Contract.
- Indemnification and Hold Harmless Provision. Contractor shall assume all responsibility 12. for damages to property and/or injuries to persons, including accidental death, which may arise out of or may be caused by Contractor's Services under this Contract, or by its subcontractor(s), or by anyone directly or indirectly employed by Contractor, and whether such damage or injury shall accrue or be discovered before or after the termination of the Contract. Except as to the sole active negligence of or willful misconduct of OC San, Contractor shall indemnify, protect, defend, and hold harmless OC San, its elected and appointed officials, officers, agents, and employees from and against any and all claims, liabilities, damages, or expenses of any nature, including attorneys' fees: (a) for injury to or death of any person, or damage to property, or interference with the use of property arising out of or in connection with Contractor's performance under the Contract, and/or (b) on account of use of any copyrighted or uncopyrighted material, composition, or process; or any patented or unpatented invention, article, or appliance furnished or used under the Contract, and/or (c) on account of any goods and services provided under this Contract. This indemnification provision shall apply to any acts or omissions, willful misconduct, or negligent misconduct, whether active or passive, on the part of Contractor or anyone employed by or working under Contractor. To the maximum extent permitted by law, Contractor's duty to defend shall apply whether or not such claims, allegations, lawsuits, or proceedings have merit or are meritless; or which involve claims or allegations that any of the parties to be defended were actively, passively, or concurrently

negligent; or which otherwise assert that the parties to be defended are responsible, in whole or in part, for any loss, damage, or injury. Contractor agrees to provide this defense immediately upon written notice from OC San, and with well qualified, adequately insured, and experienced legal counsel acceptable to OC San. This section shall survive the expiration or early termination of the Contract.

- **13.** <u>Independent Contractor</u>. The relationship between the Parties hereto is that of an independent contractor and nothing herein shall be deemed to make Contractor an OC San employee. During the performance of this Contract, Contractor and its officers, employees, and agents shall act in an independent capacity and shall not act as OC San's officers, employees, or agents. Contractor and its officers, employees, and agents shall obtain no rights to any benefits which accrue to OC San's employees.
- **14.** <u>Subcontracting and Assignment</u>. Contractor shall not delegate any duties nor assign any rights under this Contract without the prior written consent of OC San. Any such attempted delegation or assignment shall be void.
- **15.** <u>**Disclosure</u>**. Contractor agrees not to disclose, to any third party, data or information generated from this Contract without the prior written consent from OC San.</u>
- 16. <u>Non-Liability of OC San Officers and Employees</u>. No officer or employee of OC San shall be personally liable to Contractor, or any successor-in-interest, in the event of any default or breach by OC San, or for any amount which may become due to Contractor or to its successor, or for breach of any obligation under the terms of this Contract.
- **17.** <u>**Third-Party Rights.**</u> Nothing in this Contract shall be construed to give any rights or benefits to anyone other than OC San and Contractor.
- **18.** <u>Applicable Laws and Regulations</u>. Contractor shall comply with all applicable Federal, State, and local laws, rules, and regulations. Contractor also agrees to indemnify and hold OC San harmless from any and all damages and liabilities assessed against OC San as a result of Contractor's noncompliance therewith. Any provision required by law to be included herein shall be deemed included as a part of this Contract whether or not specifically included or referenced.
- **19.** <u>Licenses, Permits, Ordinances, and Regulations</u>. Contractor represents and warrants to OC San that it has obtained all licenses, permits, qualifications, and approvals of whatever nature that are legally required to provide the Services. Any and all fees required by Federal, State, County, City, and/or municipal laws, codes, and/or tariffs that pertain to the work performed under this Contract will be paid by Contractor.
- **20.** <u>Regulatory Requirements</u>. Contractor shall perform all work under this Contract in strict conformance with applicable Federal, State, and local regulatory requirements including, but not limited to, 40 CFR 122, 123, 124, 257, 258, 260, 261, and 503, Title 22, 23, and Water Codes Division 2.
- **21.** <u>Environmental Compliance</u>. Contractor shall, at its own cost and expense, comply with all Federal, State, and local environmental laws, regulations, and policies which apply to the Contractor, its subcontractors, and the Services, including, but not limited to, all applicable Federal, State, and local air pollution control laws and regulations.

- 22. <u>South Coast Air Quality Management District's Requirements</u>. It is Contractor's responsibility to ensure that all equipment furnished and installed be in accordance with the latest rules and regulations of the South Coast Air Quality Management District (SCAQMD). All Contract work practices, which may have associated emissions such as sandblasting, open field spray painting, or demolition of asbestos containing components or structures shall comply with the appropriate rules and regulations of SCAQMD.
- **23.** <u>Warranties</u>. Contractor's Warranty (Guarantee): If within a one (1) year period of completion of all work specified in Exhibit "A," OC San informs Contractor that any portion of the Services provided fails to meet the standards required under this Contract, Contractor shall, within the time agreed to by OC San and Contractor, take all such actions as are necessary to correct or complete the noted deficiency(ies) at Contractor's sole expense.

24. Dispute Resolution.

- 24.1 In the event of a dispute as to the construction or interpretation of this Contract, or any rights or obligations hereunder, the Parties shall first attempt, in good faith, to resolve the dispute by mediation. The Parties shall mutually select a mediator to facilitate the resolution of the dispute. If the Parties are unable to agree on a mediator, the mediation shall be conducted in accordance with the Commercial Mediation Rules of the American Arbitration Agreement, through the alternate dispute resolution procedures of Judicial Arbitration through Mediation Services of Orange County ("JAMS"), or any similar organization or entity conducting an alternate dispute resolution process.
- 24.2 In the event the Parties are unable to timely resolve the dispute through mediation, the issues in dispute shall be submitted to arbitration pursuant to Code of Civil Procedure, Part 3, Title 9, sections 1280 et seq. For such purpose, an agreed arbitrator shall be selected, or in the absence of agreement, each party shall select an arbitrator, and those two (2) arbitrators shall select a third. Discovery may be conducted in connection with the arbitration proceeding pursuant to Code of Civil Procedure section 1283.05. The arbitrator, or three (3) arbitrators acting as a board, shall take such evidence and make such investigation as deemed appropriate and shall render a written decision on the matter in question. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California. The arbitrator's decision and award shall be subject to review for errors of fact or law in the Superior Court for the County of Orange, with a right of appeal from any judgment issued therein.
- **25.** <u>Remedies</u>. In addition to other remedies available in law or equity, if the Contractor fails to make delivery of the goods and Services or repudiates its obligations under this Contract, or if OC San rejects the goods or Services or revokes acceptance of the goods and Services, OC San may (a) cancel the Contract; (b) recover whatever amount of the purchase price OC San has paid, and/or (c) "cover" by purchasing, or contracting to purchase, substitute goods and Services for those due from Contractor. In the event OC San elects to "cover" as described in (c), OC San shall be entitled to recover from Contractor as damages the difference between the cost of the substitute goods and Services and the Contract price, together with any incidental or consequential damages.
- **26.** <u>Force Majeure</u>. Neither party shall be liable for delays caused by accident, flood, acts of God, fire, labor trouble, war, acts of government, or any other cause beyond its control, but the affected party shall use reasonable efforts to minimize the extent of the delay. Work affected by a force majeure condition may be rescheduled by mutual consent of the Parties.

27. <u>Termination</u>.

- 27.1 OC San reserves the right to terminate this Contract for its convenience, with or without cause, in whole or in part, at any time, by written notice from OC San. Upon receipt of a termination notice, Contractor shall immediately discontinue all work under this Contract (unless the notice directs otherwise). OC San shall thereafter, within thirty (30) days, pay Contractor for work performed (cost and fee) through the date of termination. Contractor expressly waives any claim to receive anticipated profits to be earned during the uncompleted portion of this Contract. Such notice of termination shall terminate this Contract and release OC San from any further fee, cost, or claim hereunder by Contractor other than for work performed through the date of termination.
- 27.2 OC San reserves the right to terminate this Contract immediately upon OC San's determination that Contractor is not complying with the Scope of Work requirements, if the level of service is inadequate, or for any other default of this Contract.
- 27.3 OC San may also immediately terminate this Contract for default, in whole or in part, by written notice to Contractor:
 - if Contractor becomes insolvent or files a petition under the Bankruptcy Act; or
 - if Contractor sells its business; or
 - if Contractor breaches any of the terms of this Contract; or
 - if the total amount of compensation exceeds the amount authorized under this Contract.
- 27.4 All OC San's property in the possession or control of Contractor shall be returned by Contractor to OC San on demand or at the expiration or early termination of this Contract, whichever occurs first.
- **28.** <u>Attorney's Fees</u>. If any action at law or in equity or if any proceeding in the form of an Alternative Dispute Resolution (ADR) is necessary to enforce or interpret the terms of this Contract, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which the prevailing party may be entitled.
- **29.** <u>Waiver</u>. The waiver by either party of any breach or violation of, or default under, any provision of this Contract shall not be deemed a continuing waiver by such party of any other provision or of any subsequent breach or violation of this Contract or default thereunder. Any breach by Contractor to which OC San does not object shall not operate as a waiver of OC San's rights to seek remedies available to it for any subsequent breach.
- **30.** <u>Severability</u>. If any section, subsection, or provision of this Contract; or any agreement or instrument contemplated hereby; or the application of such section, subsection, or provision is held invalid, the remainder of this Contract or instrument in the application of such section, subsection, or provision to persons or circumstances other than those to which it is held invalid, shall not be affected thereby, unless the effect of such invalidity shall be to substantially frustrate the expectations of the Parties.
- **31.** <u>Survival</u>. The provisions of this Contract dealing with payment, warranty, indemnity, and forum for enforcement shall survive expiration or early termination of this Contract.

32. <u>**Governing Law.**</u> This Contract shall be governed by and interpreted under the laws of the State of California and the Parties submit to jurisdiction in the County of Orange in the event any action is brought in connection with this Contract or the performance thereof.

33. <u>Notices</u>.

- 33.1 All notices under this Contract must be in writing. Written notice shall be delivered by personal service, by electronic telecommunication, or sent by registered or certified mail, postage prepaid, return receipt requested, or by any other overnight delivery service which delivers to the noticed destination and provides proof of delivery to the sender. Rejection or other refusal to accept or the inability to deliver because of changed address for which no notice was given as provided hereunder shall be deemed to be receipt of the notice, demand, or request sent. All notices shall be effective when first received at the following addresses:
 - OC San: Donald Herrera Senior Buyer Orange County Sanitation District 10844 Ellis Avenue Fountain Valley, CA 92708 DHerrera@ocsan.gov
 - Contractor: Joe Freas President Aquatic Bioassay & Consulting Laboratories, Inc. 29 N. Olive Street Ventura, CA 93001 Joe@AquaticBioassay.com
- 33.2 Each party shall provide the other party written notice of any change in address as soon as practicable.
- **34.** <u>**Read and Understood**</u>. By signing this Contract, Contractor represents that it has read and understood the terms and conditions of the Contract.
- **35.** <u>Authority to Execute</u>. The persons executing this Contract on behalf of the Parties warrant that they are duly authorized to execute this Contract and that by executing this Contract, the Parties are formally bound.
- **36.** <u>Entire Agreement</u>. This Contract constitutes the entire agreement of the Parties and supersedes all prior written or oral communications and all contemporaneous oral agreements, understandings, and negotiations between the Parties with respect to the subject matter hereof.

[Intentionally left blank. Signatures follow on the next page.]

IN WITNESS WHEREOF, intending to be legally bound, the Parties hereto have caused this Contract to be signed by their duly authorized representatives.

ORANGE COUNTY SANITATION DISTRICT

Dated:	By: Chad P. Wanke Chair, Board of Directors
Dated:	By: Kelly A. Lore Clerk of the Board
Dated:	By: Ruth Zintzun Purchasing & Contracts Manager
	AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.
Dated:	Ву:
	Print Name and Title of Officer
СММ	

EXHIBIT A

SCOPE OF WORK

For

Benthic Infauna Sorting and Taxonomic Services

SCOPE OF WORK Benthic Infauna Sorting and Taxonomic Services SPECIFICATION NO. S-2022-1366BD

EXECUTIVE SUMMARY / OVERVIEW

The Orange County Sanitation District (OC San) operates the third largest wastewater agency west of the Mississippi River. Since 1954, we have safely collected, treated, and disposed of and/or reclaimed the wastewater generated by 2.6 million people living and working in central and northwestern Orange County, California.

Each day we treat approximately 185 million gallons of wastewater, enough water to fill Anaheim stadium over two and a quarter times. About 80 percent (80%) of the wastewater comes from homes – sinks, toilets, showers, laundry, and dishwashers. The remaining come from businesses – retail stores, restaurants, manufacturers, hotels, offices, and other industries.

A professional staff of more than 600 employees manages the day-to-day activities of OC San. Our facilities include 396 miles of sewer pipes, located throughout the county, and two (2) treatment plants – one (1) in Fountain Valley, CA and the other in Huntington Beach, CA – where wastewater is treated in accordance with strict state and federal standards.

Our employees are on duty protecting health and the environment by ensuring the sewer system efficiently operates 24 hours a day, 7 days a week and 365 days a year. We are very proud of the job we do and take pride in providing our customers with quality service.

1 Purpose

OC San requires the services of a Service Provider for the sorting and taxonomic identification of benthic infauna samples. In addition, identification of trawl-caught macroinvertebrates is required on an ad-hoc, as-needed basis.

2 Description

Samples are collected as a requirement of OC San's Ocean Monitoring Program as specified in its National Pollutant Discharge Elimination System (NPDES) ocean discharge permit. Specifically, sediment samples for infauna community analysis are collected four (4) times a year from stations located on the southern portion of the San Pedro Shelf, California. Community analysis requires that the organisms be separated (sorted) from the sediments. The Core infauna samples are collected from three (3) distinct sets of stations based on monitoring frequency required by the NPDES permit: Quarterly, Annual, and Quinquennial. The Quarterly samples are collected as single samples from eleven (11) stations ranging from 52 – 65 meters in depth, four (4) times a year. These four (4) periods are summer (July-September), fall (October-December), winter (January-March) and spring (April-June). The Annual samples are collected during the summer only and consist of eleven (11) additional stations ranging from 52 – 65 meters with one (sample per station). The Quinquennial samples are collected once in every 5-year permit cycle, in the summer, and consist of thirty-five (35) stations ranging from 40-300 meters (Table 1). Quinquennial, Annual and Quarterly station data, e.g., maps, abundances, sediment characterizations, etc., can be requested from OC San Ocean Monitoring. While most stations consist of fine sand and silt, some stations may have significant shell hash.

Trawl samples for macroinvertebrate community analysis are collected twice yearly from fourteen (14) stations which are also located on the southern portion of the San Pedro Shelf, California. Community analysis is conducted from one (1) trawl at each

station and the analysis requires that the organisms be identified to the lowest taxon possible. The Core trawl monitoring samples are collected from two (2) sets of stations: Semi-annual and Annual. The Semi-annual trawls consist of six (6) stations ranging from 52 – 65 meters depth collected twice a year. These two (2) periods are summer (July-September) and winter (January-March). The Annual samples are collected during the summer only and consist of eight (8) stations ranging from 35-300 meters (Table 2). Semi-annual and Annual station data, e.g., maps, abundances, etc., can be requested from OC San Ocean Monitoring.

In addition, OC San will be participating in Southern California Bight Regional Marine Monitoring Surveys (Regional Surveys), every 5 years beginning in 2023 with up to forty-four (44) benthic samples and a maximum of 21 trawl sites that are to be collected, sorted and identified. The sampling locations for these samples are yet to be determined and may come from a wider variety of habitats including, but not limited to, deep basins, bays, and estuaries as well wider geographical range within the Southern California Bight including the Channel Islands (Table 1).

3 Project/Work Elements

OC San requests sorting and taxonomic services outlined in Table 1. Sorting and taxonomic specifications are outlined in Section 5 and Section 6 respectively.

OC San also requests taxonomic services to perform quality assurance on a limited number of infauna samples identified by OC San staff (see Section 8.2 Taxonomic QA/QC).

OC San also requests ad hoc taxonomic services for trawl macroinvertebrates outlined in Table 2. Taxonomic specifications for ad-hoc samples are outlined in Sections 6.

NOTE:

The estimated sample number and sample frequency per Exhibit B – Online Bid Price Form, are based on actual usage from the past twelve (12) months and projected for Regional Surveys (Table 1). These estimates are for bidding purposes only. OC San does not guarantee the use of the total quantity of services for all projects listed in Exhibit B – Online Bid Price Form.

Table 1. Survey matrix for regular Core monitoring benthic infauna sampling indicating estimated

 services needed

Survey Type	Frequency	Survey period(s)	Number of SamplesDepth range focollectedsamples (m)per survey		Total per year	Sorting/ Taxonomy
Core Quarterly	Four times yearly	Summer, Fall Winter & Spring	11	52-65	44	S/T
Core Annual	Once yearly	Summer	11	52-65	11	S/T
Quinquennial	Once every permit cycle (5 years) ¹	Summer	35	40-300	35	S/T
Regional Survey	Once every 5 years ²	Summer	44	1-1000 ³	44	S/T
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¹ Next Quinquennial survey slated no earlier than the 2026-27 survey year

² Next Regional Survey scheduled for 2023

³ Actual depths and habitat ranges for regional stations are to be determined

Table 2. Survey matrix for regular Core monitoring trawl macroinvertebrate sampling indicating estimated services needed

Survey Type	Frequency	Survey period(s)	Number of trawls per Survey	Depth range for samples (m)	Total per year	Sorting/ Taxonomy
Core Semi-annual	Twice yearly	Summer & Winter	6	52-65	12	т
Core Annual	Once yearly	Summer	8	35-140	8	т
Regional Survey	Once every 5 years ¹	Summer	21	TBD ²	21	т
	total					

¹Next Regional Survey scheduled for 2023

² Actual depths and habitat ranges for regional stations are to be determined

Benthic samples are collected by OC San with a 0.1 m² modified Van Veen grab sampler. Sediment samples are screened through a 1.0 mm mesh screen and the retained organisms are gently washed into appropriate sized containers (typically into one (1) or more 1 liter wide-mouth plastic jars).

Trawl samples are collected using a standard semi-balloon otter trawl towed for at least 10 minutes along the ocean floor. Those animals not identified and enumerated in the field are fixed and preserved in a similar manner as benthic samples for further identification (FID), enumeration and weight determination.

In the field, an isotonic with seawater solution of Epsom Salts ($MgSO_4 \cdot 7H_2O$) is used to relax the organism prior to preserving in 10% formalin. After 3 – 10 days in

formalin the samples are rinsed by OC San staff with tap water and stored in 70% ethyl alcohol. OC San packs samples according to Department of Transportation (DOT) regulations for pickup by Service Provider. Sorted samples (grunge) shall be returned by the Service Provider in these same containers and packaging. Trawl animals can be returned in the same containers as they were shipped in.

4 Special Provisions

The Service Provider shall have facilities where contracted work will be performed within a 150-mile radius of OC San 's offices located at 10844 Ellis Avenue, Fountain Valley, California, 92708. This will provide better access to sorting and taxonomy laboratories for possible, announced, inspections by OC San staff and limit possible damage as well as cost of shipping samples and specimens.

The Service Provider's taxonomists will be required to maintain consistency with OC San staff taxonomists for quality assurance purposes. In addition, they may be required participate in regional monitoring programs as representatives of, and in conjunction with, OC San taxonomists. Therefore, each of the consulting taxonomists must have previously provided macrofaunal sample invertebrate species identifications for the taxa for which they will be providing services during two (2) or more of the following Regional Surveys: SCBPP'94¹, Bight'98, Bight'03, Bight'08, Bight'13, or Bight'18 and be a member of the Southern California Association of Marine Invertebrate Taxonomists. Upon request, Service Provider must provide a list of qualifying taxonomists and written verification of their participation in a minimum of two (2) Bight surveys and current membership in SCAMIT.

5 Sorting Specifications

All samples shall be sorted into five (5) major taxa groups (aliquots): Polychaeta, Mollusca, Arthropoda, Echinodermata, and Miscellaneous Phyla. For the purposes of this document Miscellaneous Phyla shall include the Subclass Echiura. They shall be vialed or jarred together in the following manor:

- Polychaeta (1 vial minimum)
- Arthropoda (1 vial minimum)
- Mollusca (1 vial minimum)
- Echinodermata (1 vials minimum)
- Miscellaneous Phyla (1 vial minimum)

For general labeling, sample handling, and container specifications see Section 7. Sorted animal vials and jars shall be packaged and hand delivered by station and replicate in individual clear plastic Ziploc® bags, or equivalent. Each bag shall be marked on the outside with the station and replicate as well as the sampling month and year. Along with a printed chain of custody (COC) detailing the number of vials and jars for each set of sorted samples delivered, an electronic inventory of number of vials and individuals removed for each sample is to be compiled and submitted in the form of a Microsoft Excel spreadsheet (version 2010 or higher; template to be provided). This spreadsheet shall contain the following fields:

- Sample Number
- Sample Fixation
- Sample Date
- Total Number of animals (all taxa, as defined section 6)

¹ Southern California Bight Pilot Project conducted in 1994

- Sorter Name
- Date Sorting Completed
- Overall Preservation Quality (Good, Fair, or Poor)
- Single Major Component of non-marine animal constituent(s) (shell-hash, tubes, wood, algae, seeds, fly larvae, fibers, coarse sand, fine sand, pea gravel organic material, sewage debris, micro-detritus, or other(specify))
- Number of vials for each aliquot
- Number of jars for each aliquot

The Service Provider shall deliver sorted animals in a timely manner as outlined in Table 3.

Table 3 Benthic aliquots and ad hoc trawl macroinvertebrate identifications delivery schedules.

Survey Type (surveys per year)	Delivery milestones
Core Quarterly (4)	30 days after first receipt of samples per survey
Core Annual (1)	30 days after first receipt of samples per survey
Quinquennial (1)	1^{st} half 30 days/ 2^{nd} half 45 days after first receipt of samples per survey
Regional Survey (1)	1^{st} half 30 days/ 2^{nd} half 45 days after first receipt of samples per survey

6 Taxonomy Reporting Specifications

a. General Identification and Data Recording Guidelines:

The number of organisms reported must account for all organisms in a sample alive at the time of collection. A corollary goal is to not count any individual more than once. Inevitably, samples contain fragments of organisms. Fragments of bilaterally symmetrical organisms will be identified and counted only if the fragment includes the anterior end of the organism. For radially symmetrical organisms (e.g., ophiuroids, anthozoans, etc.) only fragments bearing the majority of the oral disk will be identified and counted; while organisms such as sipunculids require the trunk (body) to be counted — not the introvert. Care must be taken to avoid reporting empty mollusk shells or crustacean molts.

Only soft bottom species are to be recorded. Hard-bottom epifaunal and pelagic organisms may occur incidentally in samples and are not included in data analyses. Their presence and number may be noted on the data sheets and a qualifier code should accompany the record. In addition, a brief explanatory comment is preferred. Sorters are not required to differentiate these organisms.

Records of animals unable to be identified to species due to condition, life stage, etc. shall be reported to the lowest level practical with explanation noted in the comments field. Example comments include: fragment, juvenile, crushed shell, regenerating head, missing appendages, etc. The record shall also include the appropriate qualifiers: Juvenile, Damaged, Mutation, Colonial Epibenthic, Pelagic Organisms, and Fouling Organisms. See Section 10 Data Submittal Guidelines. If specimens are removed (e.g., for voucher or for further identification (FID)), the number of individuals shall be recorded and reason for the removal noted in the comments field.

The taxon recorded shall follow the exact orthography and phylogeny as that listed in the OC San's Master Species List (MSL) maintained and provided by OC San. For those taxa not on the MSL, the Southern California Association of Marine Invertebrate Taxonomists (SCAMIT) species list should be consulted, when possible. The version of the list in effect will be determined by OC San at the time of sample distribution. For those taxa not found on either list the World Registry of Marine Species (WoRMS; www.marinespecies.org) may be used as the authority.

If the Service Provider's taxonomists find it necessary to designate a provisional species, the exact orthography and format shall conform to protocols outlined in SCCWRP (2008)² for in-house provisional taxa, e.g., Polycirrus sp OC1 indicates the first provisional in the genus Polycirrus from OC San. The taxonomist shall provide documentation of said species which shall conform with SCAMIT (2022)³ specifications for form and content. Documentation shall be submitted with the final data set in PDF or Word 2010 or higher format.

All abundance records shall also include an exclude from Diversity notation (yes or no) as defined by SCCWRP (2008)⁴.

Additionally, biomass per species shall also be recorded to the nearest gram in the comments section of the data recording sheet for all ad hoc trawl macroinvertebrate samples.

Each taxonomist will be responsible for identification and data entry for assigned samples and taxa. Electronic data sheets (in the form of Excel spreadsheets) will be provided by OC San to each taxonomist. The final form will be supplied prior to a request for taxonomic services. This form will be used to report all data to the OC San (Figure 1).

The Service Provide shall deliver the entire survey of identified animals and data within 120 days of receiving the samples. Provisions for an extension may be made with 30 days' written notice.

b. Voucher Guidelines

At a minimum, all contracting taxonomists are required to voucher one (1) or more specimens of all species that are new to the OC San MSL, a newly erected provisional, or not listed on the most current SCAMIT species list.

Labeling: Pre-cut form voucher labels along with instructions for completing them will be supplied prior to a request for taxonomic services.

² SCCWRP 2008. 3.Taxonomic Analysis. Southern California Bight 2008 Regional Marine Monitoring Survey (Bight'08) Macrobenthic (Infaunal) Sample Analysis Laboratory Manual. Southern California Coastal Water Research Project. (www.SCCWRP.org)

³ SCAMIT 2022. SCAMIT Voucher Sheet Guidelines. (www.SCAMIT.org)

⁴ SCCWRP 2008. ibid.

Vialing: All specimens shall be placed into smallest vial/jar (minimum 4 dram screw cap) into which they will fit without being damaged or distorted. All containers shall be filled completely with 70% ethanol. If needed, smaller specimens shall be placed in an unlabeled ¼ dram shell vial with cotton stopper (no bubbles) and then place into larger screw cap vial. See Section 7 for more details.

7 Material and General Sample Handling Specifications

a. Preservation

The container shall be of the appropriate size so that specimens are not crowded in the jar or vial and allow for sufficient volume of preservative, i.e., no less than 50% of the total container volume, and filled to the brim with 70% ethanol by volume. Full strength ethanol (95% ethanol and 5% water) shall be diluted to the prescribed strength with distilled or de-ionized water. Denatured ethanol, in any form, shall <u>not</u> be used.

b. Containers

All screw cap vials will be 4 drams or larger and shall be made of glass and have Polyseal®-Lined Plastic Caps. Jars shall be round wide mouth jars made of glass in 32, 16, 8, & 4 oz. sizes with lids composed of Green Thermoset ® screw caps with foam-backed Fluoropolymer resin liner, made by Qorpak®. Caps with paper liners are prohibited.

c. Labels

Labels inserted into the container with the animals shall be positioned so that the specimen is not pinned between the vial or jar and the label or impede it in anyway. Pre-printed voucher labels will be provided by OC San. All internal labels shall be composed of 100% linen paper. Sorting labels shall too be precut into roughly: 5 cm x 2 cm for use with 4 dram vials or larger. At a minimum, all labels shall include the acronym "OCSD" the survey type (Semiannual, Annual, Bight'23), complete collection data (station and replicate, collection date, depth in meters), aliquot name, and initials of the sorter on out facing side. The back shall include the 7 digit sample number printed on the external and internal label of each sample. Soft to medium pencil (e.g., 2H) or indelible black ink (e.g., 0.5 mm Uni-ball Deluxe Micro® pen or 0.5 mm Micron Archival Ink® pen) shall be used for recording these data onto specimen labels. Preprinted blank labels can be used when printed on the specified paper with laser printer for <u>sorted samples</u> only. OC San can provide a template.

8 Quality Assurance/Quality Control (QA/QC)

Infaunal QA/QC are divided into two (2) parts: Sorting QA/QC, and Taxonomic QA/QC.

a. Sorting QA/QC

Prior to delivery of aliquots, every sample is assessed in house by the Service Provider for sorting efficacy using a statistically based sorting QA/QC procedure. This procedure requires that the QA analyst tally the total number of organisms removed from each sample (F). This F value is compared to Table 4 providing 95% confidence limits for F values. The QA analyst must identify the table F value that comes closest to the sample F value without exceeding it. For each F value in the table there is a corresponding C value. These (C) values provide the basis for evaluating how effectively the sorter has processed each sample, as they represent the maximum number of animals that can be found in the remaining portion (RP) during the resort process before exceeding the sorting efficiency criteria. After the QA analyst has identified the appropriate C value for this sample, 10% of the RP (volumetrically defined) is re-examined and, if the number of animals removed from the 10% volume was less than or equal to the table C value, then the sample passes the designated sorting criteria, and no further resort is necessary. However, if the number of animals found in the first 10% RP volume is greater than the table value, the QA/QC procedure continues. The first 10% volume of RP is kept separate and another 10% fraction is removed for resorting. This stepped procedure continues until the sample passes or a total of 30% of the RP has been resorted for QA/QC. If the sample still fails at the 30% level, the entire sample is resorted by the Service Provider and processed through another QA/QC check. This process repeats until all samples pass.

The Service Provider shall report the results of these at the same time as the aliquots delivery. The report (as an Excel spreadsheet) shall include for each sample the sample number, the sorters name, total volume percentage resorted needed to pass QA, the number of total resorts completed (if any) and the F value.

Annually, 10% of each sorters allotment for a given survey will be randomly selected (with a minimum of one) for complete resort by OC San staff. Sorting efficiency shall not exceed 10% of the total animals reported. For those sorters who exceed 10% a second sample will be randomly selected for resort. If that samples also fails, then the contactor will be required to resort all samples sorted by identified sorter.

b. Taxonomic QA/QC

The District's Infauna Taxonomic QA/QC Procedures are outlined in Appendix B. As part of the Core monitoring program the contract taxonomist may be required to participate at all levels including attending possible face to face meetings with staff at the OC San facilities in Fountain Valley, CA.

Regional Survey QA/QC procedures are expected to be similar to Bight'18⁵. Participation will be mandatory for all Service Providers for those specialties needed by OC San.

9 Storage and Return of Aliquots

All samples will be returned to OC San by 90 days after the completion of QA/QC and reconciliation. Each survey type shall be kept together and separate from other survey types and ship as one (1) and should include a printed COC.

10 Data Submittal Guidelines

For Core work data shall be submitted to OC San by Service Provider using the formatted Excel 2010 spreadsheets provided by OC San (Figure 1). Regional Survey

⁵ SCCWRP 2018. 5. Quality Control. Southern California Bight 2018 Regional Marine Monitoring Survey (Bight'18) Macrobenthic (Infaunal) Sample Analysis Laboratory Manual. Southern California Coastal Water Research Project.

data shall be submitted directly to the relevant Bight Committee. See SCCWRP (2018)⁶ data submittal guidelines.

11 Staff Assistance

The Contractor will be assigned a single point of contact on this project. Any meetings and/or correspondence related to this project shall be scheduled and approved by the Project Manager.

⁶ SCCWRP 2018. 4. Data Submission and the Form of Taxonomic Names Southern California Bight 2018 Regional Marine Monitoring Survey (Bight'18) Macrobenthic (Infaunal) Sample Analysis Laboratory Manual. Southern California Coastal Water Research Project.

Figure 1 Data sheet example; actual template may vary

				Infauna Data Entry					
				Cruise: NA Sample # 184377 Station; 73 Sample Date: 7/7/201 Depth; 57 Drop #; NA Major Taxa Arthropods Taxonomist J. Taxonomist					
Rec Num	Class	Order	Family	Species Name	Count	Qualifier	Exclude	Number Removed	Comments
1				Euphilomedes carcharodonta_100200	18		No		
2				Ampelisca agassizi_11500	4		No		
3				Ampelisca careyi_11800	1		No		
4				Ampelisca brevisimulata_11700			No		
5				Ampelisca cf brevisimulata_11750			No		
6				Ampelisca cristata cristata_12000	1		No		
7				Ampelisca hancocki_11400	1		No		
8				Ampelisca pacifica_13100	1		No		
9				Listriella goleta_144400	1		No		
10				Byblis millsi_46000	2		No		
11				Rhepoxynius bicuspidatus_239900	1		No		
12				Rhepoxynius menziesi_240400	4		No		
13				Rhepoxynius stenodes_240700	3		No		
14				Rhepoxynius daboius_240000	1		No		
15				Munnogonium tillerae_169300			No		
16				Mayerella banksia_157700	1		No		
17				Araphura breviaria_29400	1		No		
18				Rutiderma Iomae_243400	1		No		
19				Eusarsiella thominx_102400	2		No		
20				Mesolamprops bispinosus 161900	1		No		

Table 4 F and C values for 10 - 30% fractions (95% QC Limits, 5% Missed, 100 Split; FRAC = The total fraction subsampled; F = The number originally found in the core; C = Cumulative total of this and all previous samples.)

Quality C	Quality Control Limits for Benthic Infauna										
FRAC	F	С	FRAC	F	С	FRAC	F	С	FRAC	F	С
0.1	550	1	0.2	2058	17	0.3	834	10	0.3	2588	41
0.1	877	2	0.2	2156	18	0.3	897	11	0.3	2641	42
0.1	1168	3	0.2	2253	19	0.3	959	12	0.3	2694	43
0.1	1440	4	0.2	2350	20	0.3	1020	13	0.3	2747	44
0.1	1700	5	0.2	2446	21	0.3	1081	14	0.3	2800	45
0.1	1951	6	0.2	2541	22	0.3	1141	15	0.3	2852	46
0.1	2195	7	0.2	2636	23	0.3	1200	16	0.3	2905	47
0.1	2435	8	0.2	2731	24	0.3	1259	17	0.3	2958	48
0.1	2670	9	0.2	2825	25	0.3	1317	18	0.3	3010	49
0.1	2902	10	0.2	2919	26	0.3	1375	19	0.3	3062	50
0.1	3130	11	0.2	3012	27	0.3	1433	20	0.3	3115	51
0.1	3356	12	0.2	3105	28	0.3	1490	21	0.3	3167	52
0.1	3580	13	0.2	3198	29	0.3	1547	22	0.3	3219	53
0.1	3802	14	0.2	3291	30	0.3	1604	23	0.3	3271	54
-	-	-	0.2	3383	31	0.3	1661	24	0.3	3323	55
0.2	265	1	0.2	3475	32	0.3	1717	25	0.3	3375	56
0.2	419	2	0.2	3566	33	0.3	1773	26	0.3	3426	57
0.2	554	3	0.2	3658	34	0.3	1828	27	0.3	3478	58
0.2	680	4	0.2	3749	35	0.3	1884	28	0.3	3530	59
0.2	800	5	0.2	3840	36	0.3	1939	29	0.3	3581	60
0.2	915	6	0.2	3931	37	0.3	1994	30	0.3	3633	61
0.2	1028	7	-	-	-	0.3	2049	31	0.3	3684	62
0.2	1137	8	0.3	170	1	0.3	2103	32	0.3	3735	63
0.2	1245	9	0.3	266	2	0.3	2158	33	0.3	3787	64
0.2	1351	10	0.3	349	3	0.3	2212	34	0.3	3838	65
0.2	1455	11	0.3	427	4	0.3	2266	35	0.3	3889	66
0.2	1558	12	0.3	500	5	0.3	2320	36	0.3	3940	67
0.2	1660	13	0.3	570	6	0.3	2374	37	0.3	3991	68
0.2	1761	14	0.3	638	7	0.3	2427	38	-	-	
0.2	1861	15	0.3	705	8	0.3	2481	39	-	-	
0.2	1960	16	0.3	770	9	0.3	2534	40	-	-	

Estimate the number sorted the first time, call it F^* . Under the fraction subsampled, find the largest F that does not exceed F^* . The corresponding C is the largest number you can find in the quality control subsample and not have to count further.

Exhibit "B" BID PRICE FORM

S-2022-1366BD Project Benthic Infauna Sorting and Taxonomic Services Exhibit B

Item No.	Section	Description	Unit of Measure	Unit Price
1	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Sorting/sample – removing animals from sediments into taxa groups listed in SOW	Each	\$420.00
2	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample - Polychaeta - specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
3	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample- Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$125.00
4	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
5	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample- Echinodermata - specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
6	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$100.00
7	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Polychaeta – specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
8	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$125.00
9	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
10	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Echinodermata – specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
11	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Miscellaneous Phyla- specific identifications of taxa to species and counts of abundance/species	Each	\$100.00
12	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Polychaeta – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
13	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Arthropoda - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
14	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Mollusca - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
15	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Echinodermata - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
16	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	QA Reconciliation – Miscellaneous Phyla – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
17	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
18	Regular Monitoring Sampling - Quarterly Benthic Surveys (n = 11 stations/survey)	Project Management/Survey	Each	\$2,800.00
19	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Sorting/sample – removing animals from sediments into taxa groups listed in SOW	Each	\$420.00
20	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Joining sample – removing ammais more taxa groups insee in sown	Each	\$535.00
20	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample-rotycness - specific identifications of taxa to species and counts of abundance/species	Each	\$125.00
21	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample - Autropoud - specure unertifications of taxa to species and counts of abundance/species	Each	\$125.00
22	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)		Each	\$75.00
23	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey) Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Taxonomy/sample-Echinodermata – specific identifications of taxa to species and counts of abundance/species	Each	\$100.00
		Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species		
25	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Polychaeta – specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
26	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$125.00
27	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
28	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Echinodermata – specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
29	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Taxonomy/sample - Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$100.00
30	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Polychaeta – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
31	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Arthropoda – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
32	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Mollusca – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
33	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Reconciliation - Echinodermata – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
34	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	QA Reconciliation – Miscellaneous Phyla – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
35	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
36	Regular Monitoring Sampling - Annual Benthic Surveys (n = 11 stations/survey)	Project Management/Survey	Each	\$2,800.00
37	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Sorting/sample – removing animals from sediments into taxa groups listed in SOW	Each	\$420.00
38	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Taxonomy/sample-Polychaeta – specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
39	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Taxonomy/sample- Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$170.00
40	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
41	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Taxonomy/sample- Echinodermata – specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
42	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$125.00
43	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Taxonomy/sample - Polychaeta – specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
44	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Taxonomy/sample Arthropoda – specific identifications of taxa to species and counts of abundance/species QA Taxonomy/sample Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$170.00
44	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Taxonomy/sample: Mollusca – specific identifications of taxa to species and counts of abundance/species QA Taxonomy/sample: Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
45	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	CAR Takonomy/sample= Monocad = specific identifications of taxa to species and counts of abundance/species CAR Takonomy/sample= Chinodermata = specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
46	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey) Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Taxonomy/sample - Echinodermata – specific identifications of taxa to species and counts of abundance/species QA Taxonomy/sample - Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
47			Hour	\$125.00
	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Reconciliation - Polychaeta – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)		
49	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Reconciliation - Arthropoda – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomis)	Hour	\$102.00
50	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Reconciliation - Mollusca – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
51	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Reconciliation - Echinodermata – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
52	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	QA Reconciliation – Miscellaneous Phyla – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
53	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
54	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	Project Management/Survey	Each	\$2,800.00
55	Regular Monitoring Sampling - 1/5 Year Benthic Surveys (n = 35 stations/survey)	(Blank)	N/A	<u> </u>
56	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Ad hoc Taxonomy/sample-Polychaeta – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$105.00
57	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Ad hoc Taxonomy/sample- Arthropoda – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$205.00
58	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Ad hoc Taxonomy/sample- Mollusca - specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$105.00
59	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Ad hoc Taxonomy/sample- Echinodermata - specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$205.00
60	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Ad hoc Taxonomy/sample- Miscellaneous Phyla - specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$205.00
61	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
62	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	Project Management/Survey	Each	\$1,800.00
63	Regular Monitoring Sampling - Semi-Annual Trawls Surveys (n = 6 stations/survey)	(Blank)	N/A	
64	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Ad hoc Taxonomy/sample-Polychaeta – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$155.00
65	Regular Monitoring Sampling - Annual Trawis Surveys (n = 8 stations/survey)	Ad noc taxonomy/sample-Arthropoda – specific identifications of taxa to species, counts of adundance/species, inomas/species Ad noc taxonomy/sample-Arthropoda – specific identifications of taxa to species, counts of adundance/species, biomass/species	Each	\$255.00
	hebata montering sempling Annual naws surveys (n = 0 stations/sdivey)	An not reconomy sample. An interopoda – specific identifications of taxa to species, counts of abundance/species, biomass/species	Luch	7233.00

66	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Ad hoc Taxonomy/sample- Mollusca – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$155.00
67	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Ad hoc Taxonomy/sample- Echinodermata – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$310.00
68	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Ad hoc Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$205.00
69	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
70	Regular Monitoring Sampling - Annual Trawls Surveys (n = 8 stations/survey)	Project Management/survey	Each	\$1,800.00
71	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Sorting/sample - removing animals from sediments into taxa groups listed in SOW	Each	\$420.00
72	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Taxonomy/sample-Polychaeta – specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
73	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Taxonomy/sample- Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$250.00
74	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
75	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Taxonomy/sample- Echinodermata – specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
76	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$210.00
77	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Taxonomy/sample - Polychaeta - specific identifications of taxa to species and counts of abundance/species	Each	\$535.00
78	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Taxonomy/sample Arthropoda – specific identifications of taxa to species and counts of abundance/species	Each	\$250.00
79	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Taxonomy/sample- Mollusca – specific identifications of taxa to species and counts of abundance/species	Each	\$110.00
80	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Taxonomy/sample - Echinodermata - specific identifications of taxa to species and counts of abundance/species	Each	\$75.00
81	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Taxonomy/sample - Miscellaneous Phyla – specific identifications of taxa to species and counts of abundance/species	Each	\$210.00
82	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Reconciliation - Polychaeta - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
83	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Reconciliation - Arthropoda – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
84	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Reconciliation - Mollusca - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
85	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Reconciliation - Echinodermata - Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
86	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	QA Reconciliation – Miscellaneous Phyla – Reconciliation of disputed identifications to species and counts of abundance/species (hourly rate/taxonomist)	Hour	\$102.00
87	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
88	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Regional Bight Taxonomy ad hoc QA/QC meetings, including SCAMIT*, (costs per 4-hr (half-day) meeting/taxonomist, including travel) – participation in required Regional Bight taxonomy and taxonomy QA meetings.	Each	\$615.00
89	Regional Monitoring Sampling - Bight Benthic Surveys (n = 44 stations/survey)	Project Management/Survey	Each	\$2,800.00
90	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Ad hoc Taxonomy/sample-Polychaeta – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$360.00
91	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Ad hoc Taxonomy/sample- Arthropoda – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$360.00
92	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Ad hoc Taxonomy/sample- Mollusca – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$205.00
93	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Ad hoc Taxonomy/sample- Echinodermata – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$310.00
94	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Ad hoc Taxonomy/sample- Miscellaneous Phyla – specific identifications of taxa to species, counts of abundance/species, biomass/species	Each	\$410.00
95	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Voucher specimen and voucher sheet preparations per taxa	Each	\$615.00
96	Regional Monitoring Sampling - Bight Trawls Surveys (n = 21 stations/survey)	Project Management/Survey	Each	\$1,800.00