

Cost Proposal for CCLEAN Regional Monitoring Program **2026-2027**



High Quality Program Management and Coordination

May 1, 2026

APPLIED *marine* SCIENCES

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Central Coast Long-term Environmental Assessment Network Cost Proposal for Program Management Applied Marine Sciences

1. Introduction

Applied Marine Sciences, Inc. (AMS) is pleased to offer our cost proposal for Program Year 2026-27 (PY26), the first of five years in Phase IV of the Central Coast Long-term Environmental Network (CCLEAN) monitoring program. CCLEAN is a long-term monitoring program for Monterey Bay committed to environmental stewardship that has been designed by subscribing agencies to fulfill several regulatory objectives, in collaboration with the Central Coast Regional Water Quality Control Board (Central Coast Water Board). CCLEAN is funded by the Carmel Area Wastewater District (CAWD), City of Santa Cruz, City of Scotts Valley, City of Watsonville, Monterey One Water (M1W), and Vistra Energy's Moss Landing Power Plant, collectively referred to as the "CCLEAN participants."

CCLEAN has played an important role in advancing water quality science in Monterey Bay, while also helping program participants to provide environmental stewardship. CCLEAN serves this role by delivering high-quality data on the sources, loads, and effects of contaminants entering Monterey Bay from the surrounding landscape. CCLEAN participants, acting through the Steering Committee, have crafted a program that provides information that is valuable to all water quality managers by determining the sources of contaminants that deliver the greatest loads to the Bay.

Phase IV represents an important evolution of the CCLEAN program. Building on the foundation established in prior phases, Phase IV will reinstate monitoring for annual loads of Persistent Organic Pollutants (POPs) from rivers, with expanded focus on nutrients and emerging contaminants present in receiving and ocean waters. This enhanced analytical framework will strengthen the program's ability to characterize contaminant pathways and support the regulatory needs of CCLEAN participants.

In PY26, AMS plans to continue working with the collaborators who have helped build the reputation of CCLEAN since its inception. Integral (formerly KEI), SGS AXYS, and Physis remain important contributors, continuing decades of working together. In addition, collaboration between analytical laboratories will be integrated for neonicotinoid samples to be run via Weck Laboratories by LC/MS/MS. This team has the local knowledge and experience to successfully perform the CCLEAN program requirements. The CCLEAN Program Manager, Aroon Melwani, supported by the CCLEAN Technical Advisor, Dane Hardin, have been delivering science in support of NPDES permittees in the Monterey Bay area for decades. Mr. Hardin also served as the Program Manager of CCLEAN from 2001–2023.

2. Team Organization

AMS will employ the same major team members that have served the program over the past 25 years:

- Integral
- SGS AXYS Analytical Services
- Physis Environmental Laboratories
- Moss Landing Marine Laboratories (MLML)
- Sonoma County Public Health Laboratory (SCPHL)

The organization chart for the proposed AMS team is shown in Figure 1. AMS will provide technical direction and program management for the program. Our role will also include management of all subcontractors, including contracting, invoicing and technical supervision. We will ensure all elements of the Scope of Work will be professionally and satisfactorily completed to meet the needs of program participants.

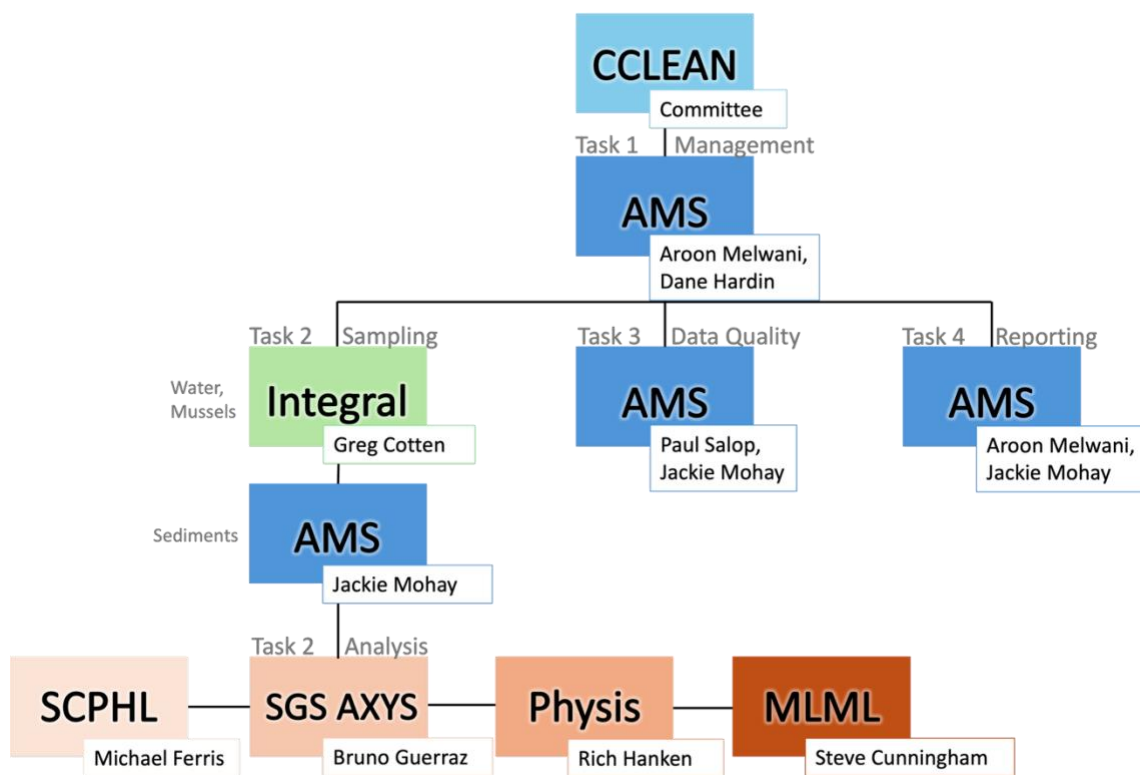


Figure 1. CCLEAN organizational chart

AMS Personnel Qualifications

Aroon Melwani holds a Ph.D. in Biological Sciences from Macquarie University, an MS in Marine Science from California State University at Monterey Bay, and a BS in Oceanography and Marine Biology from the University of Southampton. He currently serves as the Program Director for the CCLEAN Program. Dr. Melwani has over 20 years of experience supporting local, regional, and state agencies on sediment and water quality, contaminant bioaccumulation, and biological assessments. Dr. Melwani has worked with scientists, policymakers, and environmental managers to design and optimize several major environmental programs, including the CCLEAN Program, the San Francisco Bay and Delta RMPs, and regional and state sediment quality studies. He has authored 15 peer-reviewed publications and numerous technical reports.

Dane Hardin holds a Ph.C. and a BA in Biology from the University of California, Santa Cruz, and has 40 years of experience studying and assessing marine and aquatic ecosystems. He has advised the California State Water Resources Control Board on designing monitoring programs for San Francisco and Monterey Bays. As the Program Manager for CCLEAN until 2023, he managed AMS' work on the Monterey Peninsula Water Supply Project's desalination EIR/EIS and conducted a literature review on chemical contaminants affecting sea otters for the Monterey Bay National Marine Sanctuary. He actively participates in the MBNMS Water Quality Protection Program Committee and has presented CCLEAN results to the Central Coast Water Board, the MBNMS Research Advisory Panel, and various stakeholder groups. Mr. Hardin has authored over 30 scientific publications.

Paul Salop holds an MS in Marine Resource Management from Oregon State University and a BS in Industrial Engineering from North Carolina State University. He has over 25 years of experience working for consulting firms and state and federal agencies. He currently serves as Project Manager for AMS, supporting the Alameda Countywide Clean Water Program's (ACCWP) stormwater monitoring efforts. In this role, he manages field collection efforts, ensures field quality control for the Regional Monitoring Program for Water Quality in the San Francisco Estuary, and provides on-call technical services to the US Environmental Protection Agency's Region 9 Core Water Division Programs.

Jackie Mohay is a Marine Scientist with over 14 years of experience in assessing freshwater and marine ecosystem function and data analysis. She holds a BS in Marine Science from Coastal Carolina University and an MS in Fisheries and Conservation Biology from CSU Monterey Bay. Ms. Mohay currently serves as the Data Manager for CCLEAN, where she ensures data quality and submission to the CEDEN database. She also helped to develop CCLEAN's new website and an interactive ESRI data dashboard of CCLEAN data. As a field scientist, she participates in sediment and benthic cruises, supports annual reports, and performs data analysis. Beyond CCLEAN, Jackie contributes to several AMS water quality projects, including monthly monitoring near a desalination outfall in Monterey Bay and stormwater sampling for compliance with discharge permits.

Integral Personnel Qualifications

Greg Cotten will serve as the Field Sampling Project Manager for CCLEAN. In addition, he will also serve as the Task Leader for wastewater and Monterey Bay offshore sampling. Mr. Cotten is an equipment specialist and project manager at Integral and brings over 20 years of experience with developing, calibrating, and troubleshooting multi-component water quality monitoring systems. Mr. Cotten has been the primary equipment specialist for the Monterey Bay offshore moorings and has assisted in the development of the various CCLEAN program stations and sampling efforts since 2001. Mr. Cotten's ongoing upgrades on each of the wastewater stations, river and Monterey Bay offshore systems have provided significant improvements to data quality and precision. Mr. Cotten has an excellent working relationship with the various staff of the water treatment facilities and holds a current Scientific Collecting permit with the California Department of Fish and Wildlife.

3. Program Background

CCLEAN fulfills part of the receiving water compliance monitoring requirements of the CCLEAN participants' National Pollutant Discharge Elimination System (NPDES) permits. The goal of the CCLEAN program is to assist stakeholders in maintaining, restoring, and enhancing nearshore water and sediment quality and associated beneficial uses in the Central Coast Region. Nearshore waters are defined as those estuarine or marine waters that are close enough to shore to be potentially affected by human activities within the Region. This goal is achieved by collecting, assessing, and disseminating scientifically rigorous information to facilitate sound resource management decisions regarding land-use practices, permitting issues, and wastewater treatment methods. The specific objectives of the program are as follows:

1. Obtain high-quality data describing the status and long-term trends in the quality of nearshore waters, sediments, and associated beneficial uses.
2. Determine whether nearshore waters and sediments are in compliance with the Ocean Plan.
3. Determine sources of contaminants to nearshore waters.
4. Provide legally defensible data on the effects of wastewater discharges in nearshore waters.
5. Develop a long-term database on trends in the quality of nearshore waters, sediments and associated beneficial uses.
6. Ensure that the nearshore component database is compatible with other regional monitoring efforts and regulatory requirements.
7. Ensure that nearshore component data are presented in ways that are understandable and relevant to the needs of stakeholders.

Table 1. Summary of sampling sites, frequency of sampling, applicable water-quality stressors, and relevant program objectives for CCLEAN in the current phase of the CCLEAN Program

| Sampling Sites | Frequency of Sampling | Applicable Water-quality Stressors | Program Objectives |
|---|--|--|--------------------|
| Water Sampling | | | |
| Five POTW sites (Santa Cruz, Scotts Valley, Watsonville, Monterey, Carmel) for final effluent sampling, Three river sites (San Lorenzo, Pajaro, Salinas) near mouths of rivers | Twice per year (wet season and dry season) | Persistent Organic Pollutants Contaminants of Emerging Concern Nutrients Suspended Sediments (Rivers only) OP Pesticides (Santa Cruz and San Lorenzo River only) PFAS (Rivers only) | 1, 3, 4 |
| One POTW site (Watsonville) for influent sampling | One per year (dry season) | Persistent Organic Pollutants Contaminants of Emerging Concern | 1, 3, 4 |
| Five POTW sites (Santa Cruz, Scotts Valley, Watsonville, Monterey, Carmel) for final effluent sampling. | Monthly | Nutrients | 3, 4 |
| Monterey Bay nearshore sites in vicinity of wastewater outfalls for each major discharger | Monthly | FIBs | 1, 2, 3, 4 |
| Monterey Bay receiving water sites (M1W, Santa Cruz, Watsonville) in vicinity of wastewater outfalls | Quarterly | Nutrients Suspended Sediments | 1, 2, 3, 4 |
| Two offshore sites in Monterey Bay | Twice per year (wet season and dry season) | Persistent Organic Pollutants Nutrients Contaminants of Emerging Concern PFAS | 1, 2 |
| Sediment Sampling | | | |
| Three inner bay sites and three outer bay sites along 80-m contour Two inner bay dredge disposal sites (when disposal occurs) | Once per year (dry season) | Persistent Organic Pollutants Contaminants of Emerging Concern Grain size Total Organic Carbon | 1, 2 |
| Mussel Sampling | | | |
| 5 rocky intertidal sites | Once per year (wet season) | Persistent Organic Pollutants FIBs Contaminants of Emerging Concern | 1, 2, 3 |
| Benthic Sampling | | | |
| Three inner bay sites and three outer bay sites along 80-m contour | Once every 3 years (dry season) | Community Composition | 1 |

4. Scope of Work

4.1 Task 1 Program Management

The overarching goal of CCLEAN is to implement the program to best ensure that the management questions of the participants are addressed and the data meet all relevant permit requirements. To achieve this goal, AMS' approach to program management combines strong technical capabilities with administrative efficiencies in order to direct the program in a technically sound, cost-efficient, and responsive way. AMS' general approach to management is to support program participants by maintaining the integrity of the CCLEAN program, implement program changes based upon best available science and data-driven decision making, and to support communication between CCLEAN and its stakeholders.

4.2 Task 2 Field Sampling and Laboratory Services

Field sampling and sample analyses will be managed and implemented by the AMS team as described in the following sections and summarized in Table 2.

Table 2. CCLEAN monitoring sites, sampling frequency, and measurements to be made.

| Station Name | Latitude N | Longitude W | Frequency | Measurements ¹ |
|-------------------------------|---------------------|-----------------------|---------------------------------|---------------------------|
| Mussel Tissue | | | | |
| Scott Creek | 37.042 | -122.234 | wet season | CP, FI, L, LI, M, PC, PFN |
| Laguna Creek | 36.984 | -122.159 | wet season | CP, FI, L, LI, M, PC, PFN |
| The Hook | 36.959 | -121.965 | wet season | CP, FI, L, LI, M, PC, PFN |
| Fanshell Overlook | 36.584 | -121.972 | wet season | CP, FI, L, LI, M, PC |
| Carmel River Beach | 36.539 | -121.932 | wet season | CP, FI, L, LI, M, PC |
| MontCre (field duplicate) | | | wet season | CP, FI, L, LI, M, PC, PFN |
| Ocean | | | | |
| North Monterey Bay | 36.890 | -121.924 | wet and dry season | CP, PC, PA, PFN, N, PFAS |
| South Monterey Bay | 36.711 | -121.911 | wet and dry season | CP, PC, PA, PFN, N, PFAS |
| Receiving Water ² | | | | |
| Santa Cruz (Near) – G | 36.945 | -122.065 | wet and dry season (2x each) | N, TSS |
| Santa Cruz (Far) – A | 36.947 | -122.026 | wet and dry season (2x each) | N, TSS |
| Watsonville (Near) – D | 36.846 | -121.811 | wet and dry season (2x each) | N, TSS |
| Watsonville (Far) – A | 36.864 | -121.822 | wet and dry season (2x each) | N, TSS |
| Monterey One Water (Near) – A | 36.736 | -121.810 | wet and dry season (2x each) | N, TSS |
| Monterey One Water (Far) – B | 36.728 | -121.810 | wet and dry season (2x each) | N, TSS |
| Effluent | | | | |
| Santa Cruz ³ | 36.934 ⁵ | -122.073 ⁵ | wet and dry season | CP, PC, PA, D, PFN, OP |

| Station Name | Latitude N | Longitude W | Frequency | Measurements ¹ |
|---------------------------------|---------------------|-----------------------|--------------------|---------------------------------------|
| Scotts Valley ³ | 36.934 ⁵ | -122.073 ⁵ | wet and dry season | CP, PC, PA, D, PFN, OP |
| Watsonville ³ | 36.846 ⁵ | -121.833 ⁵ | wet and dry season | CP, PC, PA, D, PFN |
| Watsonville ⁴ | NA | NA | dry season | CP, PC, PA, D, PFN |
| Monterey One Water ³ | 36.728 ⁵ | -121.837 ⁵ | wet and dry season | CP, PC, PA, D, PFN |
| Carmel Area ³ | 36.533 ⁵ | -121.929 ⁵ | wet and dry season | CP, PC, PA, D, PFN |
| Rivers | | | | |
| San Lorenzo | 36.991 | -122.031 | wet and dry season | CP, PC, N, OP, PA, PFAS, PFN, TSS |
| Pajaro | 36.886 | -122.7845 | wet and dry season | CP, PC, N, PA, PFAS, PFN, TSS |
| Salinas | 36.678 | 121.750 | wet and dry season | CP, PC, N, PA, PFAS, PFN, TSS |
| Sediment | | | | |
| SedRef2 | 36.944 | 122.210 | dry season | CP, PC, M, G, T, PFN, BC ⁶ |
| SedRef3 | 36.925 | 122.177 | dry season | CP, PC, M, G, T, PFN, BC ⁶ |
| SedRef4 | 36.912 | 122.156 | dry season | CP, PC, M, G, T, PFN, BC ⁶ |
| SedDep1 | 36.863 | 122.039 | dry season | CP, PC, M, G, T, PFN, BC ⁶ |
| SedDep2 | 36.837 | 121.932 | dry season | CP, PC, M, G, T, BC ⁶ |
| SedDep3 | 36.761 | 121.871 | dry season | CP, PC, M, G, T, BC ⁶ |
| SF-12 | 36.802 | 121.793 | dry season | CP, PC, M, G, T |
| SF-14 | 36.798 | 121.819 | dry season | CP, PC, M, G, T |

¹ = CP – chlorinated pesticides, D – Dioxins/Furans, FI – FIBs, G – sediment grain size, L – length, LI – lipid content, M – moisture content, N – Nutrients (ammonia, nitrate, orthophosphate, urea, silicate), OP – organophosphorus pesticides, PA – polynuclear aromatic hydrocarbons, PC – PCBs, PFAS – perfluorinated compounds, PFN – pyrethroids, fipronils, neonicotinoids, T – sediment total organic carbon, TSS – total suspended solids.

² = Sampling conducted by POTW staff

³ = Effluent

⁴ = Influent

⁵ = Latitudes and longitudes are for ocean discharges.

⁶ = Benthic community analysis every three years.

4.2.1 Task 2.1 Mussel Sampling

Mussel collection and processing will be consistent with CDFW's Standard Operating Procedures (SOPs). Mussels will be collected from the sites listed in Table 2 and maintained at 2-4°C for transfer to the laboratories. Forty to 50 mussels will be placed in two sets of double aluminum bags for further processing for POP and CEC analyses. A third set of 30 mussels will be measured in the field, placed in another double set of aluminum bags. This set of samples will be delivered under Chain-of-Custody to the Sonoma County Public Health Laboratory within 48 hours for the analysis of pathogen indicators. After homogenization, the remaining samples will be kept frozen at or below -20°C until ready for extraction for chemical analyses. Processed mussel samples will be transferred under Chain-of-Custody to the remaining analytical laboratories.

4.2.2 Task 2.2 Wastewater Effluent Sampling

Sampling of final effluent from five wastewater effluent streams (City of Scotts Valley, City of Santa Cruz, City of Watsonville, Monterey One Water, and Carmel Area Wastewater District) will occur on the schedule found in Table 2. This work requires coordination with each treatment plant, as well as monitoring and predicting effluent flows to ensure the proper sampling rate.

Following automated sampling setup, each system will be checked weekly to ensure that the equipment is working properly. Once a sampler has pumped 250 liters of effluent through the glass fiber filter and XAD-2 column, and approximately 30 days of sampling have been completed, the ISCO sampler will be shut off and the filter and column will be removed. When the POP sampling is completed, each POTW will collect 48-hour composites of their effluent for fipronils, pyrethroids, and neonicotinoids. All samples will be placed in an ice chest with double-bagged blue ice packets and maintained at 2-4°C for transfer under Chain-of-Custody to analytical laboratories.

4.2.3 Task 2.3 POP Sampling in Rivers

River samples will be collected from the San Lorenzo, Pajaro, and Salinas Rivers according to the schedule shown in Table 2. Sampling at the San Lorenzo River will utilize the existing site installation, while new automated sampling systems will be established at the Pajaro and Salinas Rivers prior to the start of the dry season sampling period.

At each new river site, an ISCO automatic sampler will be installed and programmed for time-based sampling. Once calibrated, the ISCO sampler will be programmed to pump one-liter aliquots through a glass fiber particle filter and XAD-2 resin bead column over approximately 30 days.

A YSI multi-parameter sonde will be co-deployed at each river site to provide concurrent measurement and logging of temperature, conductivity, pH, dissolved oxygen, and turbidity. All equipment will be secured against loss or damage from high winter river flows: the YSI sonde will be deployed in a protective case and secured with a stainless-steel cable, and the ISCO sampler will be enclosed in a locked steel box to prevent theft, vandalism, or displacement during high-flow events.

Each river site will be checked weekly to verify that equipment is functioning properly. Once approximately 250 liters have been pumped through the filter and column set and 30 days of sampling have been completed, the ISCO sampler will be shut off and the filter and column removed. The glass fiber filter will be double-wrapped in cleaned aluminum foil and double-bagged in Ziploc bags; the XAD-2 column and any associated glass fiber filters will be placed in a separate Ziploc bag. Samples will be placed in an ice chest with double-bagged blue ice and maintained at 2-4°C for transfer under Chain-of-Custody to analytical laboratories.

4.2.4 Task 2.4 Monterey Bay Ocean Sampling

Moorings with specialized sampling equipment will be installed at two sites in Monterey Bay during the dry season and wet season (Table 2). Specialized samplers designed to collect 250 one-liter sample aliquots through a glass fiber particle filter and XAD-2 resin bead column over a period of approximately 30 days will be deployed at the two moorings. Deployments of these two moorings require a MBNMS Research Permit. Integral has the necessary permit to perform this task. Moorings are fitted with U.S. Coast Guard approved lighted buoys and have been permitted by the MBNMS. During both the deployment and retrieval of the moorings, duplicate samples for measurements of nutrients will be collected as grab samples at each site. Following retrieval, sampling media and chemistry samples will be placed in an ice chest with double-bagged blue ice packets and maintained at 2-4°C, while nutrient samples will be frozen at <6°C, for transfer under Chain-of-Custody to analytical laboratories within prescribed holding times.

4.2.5 Task 2.5 POTW Receiving Water Nutrient Sampling

In Phase IV, three of the POTWs (City of Santa Cruz, City of Watsonville, and M1W) will collect grab samples for nutrients (ammonia, nitrate, orthophosphate, and silicate) and total suspended solids (TSS) at designated receiving water sites on a quarterly basis (four times per year). Addition of nutrient monitoring to shoreline-proximal receiving water sites is being utilized to capture the spatial gradients and potential river–effluent mixing zones most relevant to beneficial-use protection, particularly under wet season conditions when river plumes and effluent-derived loads could interact in the nearshore zone.

Receiving water sampling by each POTW will be conducted at two established receiving water monitoring sites already being sampled for other constituents per NPDES requirements (i.e., TSS and FIBs). CCLEAN grab samples will be collected by POTW staff on a quarterly schedule encompassing both dry and wet season periods. Samples will be collected in pre-cleaned bottles, following standard field collection protocols for nutrients. Upon collection, nutrient samples will be frozen at <6°C while TSS samples will be run following standard methods at each POTW. AMS field staff will coordinate pickup of the samples for nutrient analysis from each POTW and transport samples under Chain-of-Custody to the analytical laboratory within prescribed holding times.

4.2.6 Task 2.6 Watsonville Influent Sampling

The approach to Watsonville influent sampling will be the same as effluent sampling described in Section 4.2.2 and will include the analyte groups listed in Table 2. The sampling frequency of this element is limited to dry season only.

4.2.7 Task 2.7 Nutrients and CEC Sampling in Rivers

The pyrethroid, fipronil, neonicotinoid, and PFAS sampling in rivers will be similar to the approaches described for wastewater effluent. Each river will be sampled using automated sampling equipment to take flow-based samples based on the flow present at the time of setup. The flow sample pacing will be set up to collect a 500 mL sample approximately

every two hours over a 48-hour period to generate the composite sample. Samples will be stored on ice during collection. Upon completion of the sampling, separate samples will be collected for nutrient analyses as described above for ocean sampling. Field staff will take the completed CEC samples from each of the three river sites and place them in an ice chest maintained at 2-4°C for transfer under Chain-of-Custody to analytical laboratories within prescribed holding times.

4.2.8 Task 2.8 Sediment Sampling

AMS will conduct annual sediment sampling for POP and current use pesticide analysis (Table 2). The collection of surficial sediments for chemistry will be conducted at the six “Sed” sites and from SF-12 and SF-14 if dredge disposal has occurred. Sediment samples will be collected using a modified Van Veen grab. Field staff will take the completed samples from each of the sediment sites and place them in an ice chest maintained at 2-4°C for transfer under Chain-of-Custody to analytical laboratories.

4.3 Task 3 Data Assembly and Quality Assurance

Gathering, reviewing, submitting and analyzing CCLEAN data is a complex undertaking that AMS divides into two main phases. The first phase includes QA/QC performed by AMS when data files are received from analytical laboratories. This phase involves comparisons between CCLEAN QAPP and the received data to ensure that all required laboratory QA/QC steps have been taken and that data not achieving MQOs are properly qualified. The second phase of CCLEAN data processing involves submittal of the data to the California Environmental Data Exchange Network (CEDEN). CEDEN aggregates a diverse range of water quality data from California providing it to environmental managers and the public.

4.4 Task 4 CCLEAN Annual Report

This task covers all activities necessary to produce the CCLEAN annual report. The objective of the Annual Report is presentation of program data to answer the following specific questions are addressed:

- What are the status and long-term trends in the quality of nearshore waters, sediments, and associated beneficial uses?
- What are the major sources of contaminants to nearshore waters?
- What are the effects of wastewater discharges on nearshore waters?

Over the past several years, AMS has adapted a strategy for facilitating data analysis for the Annual Report by utilizing the programming software R. R is a powerful tool for extracting data relevant for specific analysis, calculating parameters of interest, and generating professional graphics that effectively display the data. In addition to applying R for generating analysis for the Annual Report, AMS continues to automate the process of adding new data to existing CCLEAN R files. Automating this process reduces the amount of time required to format data for analysis and eliminate human errors.

Each year, AMS produces a draft Annual Report by March 31 for review and comment by Program participants. After a four-week comment period, the draft report will be revised to incorporate reviewer comments and finalized for submittal to the Central Coast Water Board by May 30.

4.5 Task 5 CCLEAN Website and External Coordination

This task includes the activities required to manage the CCLEAN website, respond to external requests, and foster stakeholder coordination:

- Management of the CCLEAN website – This effort consists of security management of the CCLEAN website, posting reports and information, and the annual update of the data dashboard as new data become available.
- External coordination of the CCLEAN program – This effort consists of responding to data delivery requests from external stakeholders and participation in quarterly meetings of the Monterey Bay National Marine Sanctuary to share information, as necessary.

5. Cost Proposal

The enclosed budget has been developed for the 2026-27 Program Year (PY26) based on discussions held at the March and April 2026 Steering Committee meetings. PY26 costs are based on 2026 billing rates for AMS and its collaborators that take effect on July 1, 2026, which includes each of the tasks agreed upon with the CCLEAN Steering Committee at the meeting held on April 22nd.

A feature of the cost proposal is that AMS has assumed that Physis Laboratories will be successful in re-establishing its ELAP Accreditation prior to the onset of CCLEAN dry season sampling in PY26. If this status has not been re-established, consideration will be given to transition all water and sediment analysis for CECs (Pyrethroids, Fipronils, and Neonicotinoids) to Weck Laboratories. This will likely have minimal cost implications but potentially impacts trend integrity due to higher detection limits at Weck.

Table 3 presents a summary of AMS' projected costs associated with each major task and subtask in the CCLEAN scope over the next Program Year.

Table 3. Applied Marine Sciences (AMS) budget by task

| Task | Description | PY 26 | | |
|------------|--|---------------------|-------------------|------------------|
| | | AMS Labor Cost (\$) | Direct Costs (\$) | Total Cost (\$) |
| 1 | Program Management | \$53,380 | \$0 | \$53,380 |
| 2 | Field Sampling and Laboratory Analysis | \$17,280 | \$404,230 | \$421,510 |
| 2.1 | Mussels Collections | \$0 | \$29,727 | \$29,727 |
| 2.2 | POTW Outfall Sampling | \$0 | \$137,129 | \$137,129 |
| 2.3 | River POP Sampling | \$0 | \$85,865 | \$85,865 |
| 2.4 | Monterey Bay Ocean Sampling | \$0 | \$78,299 | \$78,299 |
| 2.5 | POTW Receiving Water Nutrient Sampling | \$1,200 | \$756 | \$1,956 |
| 2.6 | Watsonville Influent Sampling | \$0 | \$9,136 | \$9,136 |
| 2.7 | Nutrients and CECs Sampling in Rivers | \$0 | \$23,741 | \$23,741 |
| 2.8 | Sediment Sampling | \$16,080 | \$39,577 | \$55,657 |
| 3 | Data Assembly and Quality Assurance | \$37,200 | \$4,200 | \$41,400 |
| 4 | Annual Report | \$60,420 | \$0 | \$60,420 |
| 5 | CCLEAN Website and External Coordination | \$18,400 | \$281 | \$18,681 |
| | | | | |
| | AMS Contract Total | | | \$595,390 |

Table 4 presents a complete overview of PY26 costs. The total cost to implement CCLEAN includes overhead and contingency funds:

- Lead agency overhead of 7% of the subcontractor budget
- A contingency of 5% of the total budget

Table 4. Budget summary PY26 CCLEAN Program costs

| Program Year | AMS | Lead Agency Fee | Contingency Fee | Total Budget |
|--------------|------------|-----------------|-----------------|--------------|
| PY 26 | \$595,390* | \$41,038 | \$29,313 | \$665,741* |

* The cost for Watsonville Influent sampling is paid exclusively by the City of Watsonville and is not split among the other CCLEAN participants.

Table 5 presents a breakdown of the PY26 budget according to the 5-year average flow calculation per the CCLEAM MOU.

Table 5. CCLEAN Participant Flow Contributions and Corresponding Budget Allocations for PY26

| CCLEAN PARTICIPANT | 5-year Average Flow | Budget \$ |
|--------------------|---------------------|-----------|
| Carmel | 2.75% | \$27,591 |
| Monterey | 30.81% | \$186,599 |
| Watsonville | 16.60% | \$115,210 |
| Santa Cruz | 47.25% | \$279,704 |
| Scotts Valley | 2.58% | \$26,637 |
| Vistra | 0.00% | \$30,000 |

Table 6 presented AMS Hourly billing rates for 2025-2026.

Table 6. AMS Hourly Billing Rates PY26

| Billing Category | Staff | Hourly Rate |
|---------------------------|-------------------|-------------|
| Program Director | Melwani | \$255 |
| Program Advisor | Hardin | \$230 |
| Quality Assurance Officer | Salop | \$255 |
| Scientist | Goldenberg, Mohay | \$140-165 |
| Administrative | Stafford, Cammack | \$125-\$150 |