

**CENTRAL COAST LONG-TERM ENVIRONMENTAL ASSESSMENT
NETWORK (CCLEAN) Steering Committee
Meeting Minutes**

March 25th, 2026, 2:00 pm
Via Teleconference Zoom Webinar

The meeting was called to order on **March 25th, 2026**, at **2:02 pm** by Jennie Munster. Roll call was taken of the voting committee members signed on to Zoom.

Participants – Voting Members: Present:

Jennie Munster, Laboratory Manager: City of Santa Cruz
Patrick Treanor, District Engineer: CAWD
Mohammed Serageldin, Laboratory Manager: CAWD
Mike Crane, Water Quality Chemist: City of Watsonville
Connie Machuca, Laboratory Manager: City of Watsonville
Jeremy Long, Wastewater Division Manager: City of Scotts Valley
Olivia Woolery, Laboratory Supervisor: Monterey One Water (M1W)

Voting Members: Absent:

Anne Hogan, Wastewater System Manager: City of Santa Cruz
Dave Martin, Environmental Compliance Inspector: City of Santa Cruz
Jose Guzman, Operations Manager: Monterey One Water
Sarah Stevens, Environmental and Regulatory Compliance Supervisor: Monterey One Water
Laura Dale, EH&S Manager: Vistra Corp (Moss Landing Power Plant)

A quorum was present.

Participants – Non-Voting Members: Present

Aroon Melwani, Senior Scientist, Central Coast Managing Principal Partner: Applied Marine Sciences (AMS)
Sarah Bragg-Flavan, Water Resource Control Engineer: Central Coast Water Board
Cameron Kostigen Mumper, Associate Manager | Pure Water Soquel

Non-Voting Members: Absent

Dane Hardin, Senior Marine Scientist, Principal: Applied Marine Sciences
Mary Hamilton, Environmental Program Manager: Central Coast Water Board

Virtual Public Attendees: None

1. APPEARANCES / PUBLIC COMMENTS

2. AGENDA CHANGES

Agenda item order was modified during the meeting. Item F (Discuss Addition of Soquel Creek Water District as Member of CCLEAN) was deferred until Monterey One Water arrived and later taken up before completion of the Phase 4 discussion so that Cameron Kostigen Mumper could participate before leaving for another meeting.

Agenda Items:

A. Introductions

No formal introductions were conducted at the outset. Attendance was taken, and later in the meeting Jennie acknowledged Olivia Woolery upon joining and noted that Monterey One Water was then represented for the Soquel Creek discussion.

B. Chair’s Report, by Santa Cruz Representative

<p>Discussion:</p> <p>Jennie Munster proposed revisiting the general meeting flow at a future meeting so that agency attendance could potentially include short CCLEAN-related operational or monitoring updates. Patrick Treanor supported keeping the chair role in place and encouraged keeping any agency updates brief and focused.</p> <p>Jennie reported that the City of Santa Cruz 001B CCLEAN sampling location is now functioning, with the flow signal working and sampling underway, although Santa Cruz started approximately one week later than the other agencies.</p> <p>Jennie also reported that Santa Cruz is planning a major headworks rehabilitation project that will require temporary diversion of flow. Because recycled flow could mix with the City sampler during that work, Santa Cruz proposed measuring the recycle stream separately for analytes and flow, then subtracting that portion in order to isolate the City contribution. Sarah Bragg-Flavan confirmed she had received the memo and would review it.</p> <p>Cameron Kostigen Mumper asked whether Santa Cruz was seeing any chlorine residual issues associated with the ROC stream from Pure Water Soquel. Jennie stated she had not been directly monitoring that signal but would raise any issues if they arose.</p>
<p>Decision:</p> <p>None.</p>
<p>Action Item:</p> <p>Jennie Munster to circulate a follow-up email for future discussion on possible meeting format refinements.</p>

C. Review of Prior Meeting Minutes, Report by CAWD

<p>Discussion:</p> <p>Patrick Treanor summarized the February 25, 2026 meeting minutes.</p>
<p>Decision:</p> <p>Mike Crane motioned to approve the February 25, 2026 meeting minutes. Jeremy Long seconded the motion. Approved unanimously.</p>

Action Item:

None.

D. Lead Agency Remarks, Report by CAWD

Patrick Treanor stated he had no formal Lead Agency remarks. A brief related discussion followed regarding agency representation at meetings, and the group reaffirmed that each agency has one vote regardless of how many staff attend.

E. DMR Reporting on CIWQS

Discussion:

Jennie Munster asked whether the DMR reporting issue in CIWQS had been resolved.

Sarah Bragg-Flavan reported that the DMR reporting function remains down. She had requested an update and stated she would forward any information once available. Sarah also noted that the CIWQS page includes language about how future submittals may be linked once the issue is resolved, but implementation details are still unclear.

Decision:

None.

Action Item:

Sarah Bragg-Flavan to share any CIWQS/DMR update if and when one is received.

F. Discuss Addition of Soquel Creek Water District as Member of CCLEAN

Discussion:

This item was deferred until later in the meeting so Monterey One Water could be represented and Cameron Kostigen Mumper could participate before departing for another meeting.

Jennie framed the issue as whether Pure Water Soquel / Soquel Creek Water District should be treated as a voting member or a non-voting participant, noting that the broader goal of CCLEAN is to understand discharges to Monterey Bay and that her view is that all significant contributing discharges should ultimately be accounted for.

Patrick Treanor observed that the current MOA language is inconsistent and appears to distinguish imperfectly between general CCLEAN participation and steering committee membership. He noted that the signature block and membership language suggest Soquel Creek had long been contemplated as a participant, even though the document may not have been fully executed by them.

Cameron Kostigen Mumper stated that Soquel Creek Water District could remain an honorary or non-voting participant, but if decisions made by others could increase the District's monetary contribution, then having no vote would not seem equitable.

Olivia Woolery stated that Monterey One Water is comfortable with Soquel Creek participating in meetings, but not prepared to support voting membership at this time. She explained Monterey One Water's concerns include ownership of the outfall, the fact that CCLEAN participation is tied to the outfall owner's permit rather than Soquel Creek's separate permit structure, and the need to avoid creating unclear precedent.

Sarah Bragg-Flavan clarified that the Soquel Creek discharge is distinct from Monterey One Water's future desalination-brine permitting situation because the Soquel discharge is nested within Santa Cruz's permit structure. She also confirmed that desalination brine has separate ocean-plan monitoring requirements and would not automatically be treated the same as CCLEAN monitoring.

Decision:

No vote was taken. The item was tabled pending additional review of the MOA language, clarification of voting rights versus participation status, and further internal review by the agencies.

Action Item:

Jennie Munster to gather additional background and consult internally with Santa Cruz leadership regarding existing agreements and CCLEAN expectations before the next discussion.

G. Program Director's Report, Report by Applied Marine Sciences

Discussion:

Wet Season Monitoring: Aroon Melwani reported that wet season monitoring is wrapping up, although finish dates will be somewhat staggered. Ocean sampling was expected to conclude soon, subject to weather. He confirmed that the previously approved PHYSIS/WEC side-by-side work will proceed this season, with additional sample volume being collected for the WEC analyses. Aroon also reviewed preliminary side-by-side data from another program (through Preservation, Inc.), noting that results were inconsistent and still being evaluated.

Annual Report: Aroon reported that AMS has completed the analyses, figures, and tables for the annual report and is now moving into report writing. He noted elevated PCB concentrations in San Lorenzo River samples and ocean samples. He also identified an error in the nutrient-load calculations from the prior annual report: seasonal scaling had not been applied correctly, resulting in underreported annual loads, especially for river loads. After discussion, Sarah Bragg-Flavan recommended republishing the prior annual report with corrected figures rather than only correcting the issue in the next report, and the committee agreed.

Phase 4 Proposal: Aroon presented a straw-man Phase 4 program design based on the technical memo and follow-up discussion with Jennie and Olivia. Proposed changes included: restoring pooled river POP monitoring; moving nutrient, TSS, and FIB monitoring from the offshore buoy sites to nearshore receiving-water sites where signals are more likely to reflect effluent and river influences; maintaining sediment and mussel sampling largely as-is; and adjusting the benthic community sampling interval from five years to a three- or four-year

cycle for improved trend sensitivity.

Aroon then presented a rough planning budget. He emphasized that these were planning-level numbers only, based in part on assumed increases, and that formal costs would need to be developed before any final budget action.

Decision:

The committee voted to reissue the prior annual report with corrected nutrient-load calculations and corrected figures.

The committee also agreed that Aroon should prepare a more detailed Phase 4 budget for further review at the next meeting.

Action Item:

Aroon Melwani to revise and reissue the previous annual report with corrected nutrient-load calculations and figures.

Aroon Melwani to prepare a detailed Phase 4 budget and associated monitoring-plan update for discussion at the next meeting.

Patrick Treanor to include the annual report draft discussion as part of the next regular meeting materials if timing allows.

H. CCLEAN Topics or Questions for Water Board Staff

Discussion:

During the Phase 4 discussion, Sarah Bragg-Flavan expressed support for the proposed shift in nutrient/TSS monitoring toward receiving waters, noting that the Regional Board is also trying to better tie nutrient data to actual discharge impacts. She also noted continuing uncertainty regarding how CCLEAN sediment monitoring best demonstrates satisfaction of the Ocean Plan's narrative sediment objectives, especially with respect to sulfides.

Aroon asked whether the Phase 4 process still needed a separate proposal letter. Sarah clarified that, because no permit language has yet changed, the current process remains the same and an updated monitoring plan / Attachment A would still be the relevant deliverable.

Jennie also raised Watsonville influent monitoring as a topic worth revisiting in light of AMS's analysis and Watsonville's upcoming permit renewal. Mike Crane and Connie Machuca indicated they would review the influent-monitoring data internally and discuss a preferred path forward with the Regional Board.

Decision:

None.

Action Item:

None.

I. Water Board’s Report, Report by Central Coast Water Board

<p>Discussion:</p> <p>Sarah Bragg-Flavan reported one administrative update: agencies that are changing their legally authorized official should expect processing to take somewhat longer than usual because of evolving interpretation and processing requirements.</p> <p>Earlier in the meeting, Sarah also clarified that any future Monterey One Water / Cal-Am desalination brine permit revision will address desalination-specific ocean-plan requirements separately from CCLEAN’s existing long-term trend monitoring obligations.</p>
<p>Decision:</p> <p>None.</p>
<p>Action Item:</p> <p>None.</p>

J. General Announcements

No additional general announcements were made.

K. Financial Report, Report by CAWD

<p>Discussion:</p> <p>Patrick Treanor reported that the financial statements were essentially unchanged from the prior month, with the program still in Quarter 3.</p> <p>Patrick noted that AMS had likely submitted another invoice since the last meeting and that available cash on hand was approximately \$133,000.</p>
<p>Decision:</p> <p>No action was taken on the financial report.</p>
<p>Action Item:</p> <p>None.</p>

3. ADJOURNMENT / NEXT MEETING DATE

April 22nd, 2026 at 2:00 PM was identified as the next scheduled meeting for the Steering Committee.

ADJOURNMENT: Jennie Munster adjourned the meeting at approximately 3:26 p.m.

CCLEAN SCOPE PHASE IV MONITORING DESIGN DRAFT



03/25/26

A.Melwani, AMS

CCLEAN PROGRAM OBJECTIVES

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**.

POTW AND RIVER SITES

Sampling Sites	Frequency of Sampling	Applicable Water-quality Stressors	Program Objectives	PHASE IV PROPOSAL
<p>Water Sampling</p> <p>Five POTW sites (Santa Cruz, Scotts Valley, Watsonville, Monterey, Carmel) for final effluent sampling.</p> <p>Three river sites (San Lorenzo, Pajaro, Salinas) near mouths of rivers</p>	Twice per year (wet season and dry season)	Persistent Organic Pollutants	1, 3, 4	ADD RIVER POPs
<p>Five POTW sites (Santa Cruz, Scotts Valley, Watsonville, Monterey, Carmel) for final effluent sampling,</p> <p>Three river sites (San Lorenzo, Pajaro, Salinas) near mouths of rivers</p>	Twice per year (wet season and dry season)	<p>Contaminants of Emerging Concern</p> <p>Nutrients</p> <p>Suspended Sediments (Rivers only)</p> <p>OP Pesticides (Santa Cruz and San Lorenzo River only)</p> <p>PFAS (Rivers only)</p>	1, 3, 4	Status Quo (No Changes)



POTW, RECEIVING WATER, AND OCEAN SITES

Sampling Sites	Frequency of Sampling	Applicable Water-quality Stressors	Program Objectives	PHASE IV PROPOSAL
Water Sampling				
Five POTW sites (Santa Cruz, Scotts Valley, Watsonville, Monterey, Carmel) for final effluent sampling	Monthly	Nutrients	3, 4	Status Quo (No Changes)
Monterey Bay nearshore sites in vicinity of wastewater outfalls for each major discharger	Monthly	FIBs	1, 2, 3, 4	Status Quo (No Changes)
Near/Far-field Monterey Bay nearshore sites (MIW, Santa Cruz, Watsonville) in vicinity of wastewater outfalls	Quarterly	Nutrients Suspended Sediments	1, 2, 3, 4	Add Nutrients, TSS
Two offshore sites in Monterey Bay	Twice per year (wet season and dry season)	Persistent Organic Pollutants Contaminants of Emerging Concern PFAS	1, 2	Remove Nutrients, FIBs, TSS



SEDIMENTS, TISSUE, BENTHIC COMMUNITIES

Sampling Sites	Frequency of Sampling	Applicable Water-quality Stressors	Program Objectives	PHASE IV PROPOSAL
Sediment Sampling				
Three inner bay sites and three outer bay sites along 80-m contour	Annually	Persistent Organic Pollutants Contaminants of Emerging Concern Grain size Total Organic Carbon	1, 2	Status Quo (No Changes)
Two inner bay dredge disposal sites (when disposal occurs)				
Mussel Sampling				
5 rocky intertidal sites	Twice per year (wet season and dry season)	Persistent Organic Pollutants FIBs Contaminants of Emerging Concern	1, 2, 3	Status Quo (No Changes)
Benthic Sampling				
Three inner bay sites and three outer bay sites along 80-m contour.	Once every 3 years (dry season)	Community Composition Grain size Total Organic Carbon	1	Change Frequency to every 3 rd year

OVERVIEW OF CCLEAN MONITORING PLAN

Task	Description
1	Program Management
2	Field Sampling and Laboratory Analysis
2.1	Mussels Collections
2.2	POTW Outfall Sampling
2.3	River POPs (ADDITION)
2.4	Monterey Bay Ocean POPs, CECs
2.5	Monterey Bay Receiving Water Nutrients/TSS/FIBs (IN-KIND)
2.6	Watsonville Influent Sampling (WATSONVILLE ONLY)
2.7	Nutrients and CECs Sampling in Rivers
2.8	Sediment Sampling
3	Data Assembly and Quality Assurance
4	Annual Report
5	Miscellaneous Tasks

BUDGET OVERVIEW

Table 1. CCLEAN Strawman Budget PY26

Task	Description	PY 26		
		AMS Labor Cost (\$)	Direct Costs (\$)	Total Cost (\$)
1	Program Management	\$54,000	\$0	\$54,000
2	Field Sampling and Laboratory Analysis	\$16,000	\$336,000 \$426,000	\$352,000 \$442,000
2.1	Mussels Collections	\$0	\$33,000	\$32,000
2.2	POTW Outfall Sampling	\$0	\$150,000	\$150,000
2.3	River POPs	\$0	\$90,000	\$90,000
2.4	Monterey Bay Ocean Sampling	\$0	\$75,000	\$75,000
2.5	Receiving Water Sampling Nutrients/TSS/FIBs	\$0	In-kind	\$0
2.6	Watsonville Influent Sampling	\$0	\$10,000	\$10,000
2.7	Nutrients and CECs Sampling in Rivers	\$0	\$25,000	\$25,000
2.8	Sediment Sampling	\$16,000	\$44,000	\$60,000
3	Data Assembly and Quality Assurance	\$38,000	\$6,000	\$44,000
4	Annual Report	\$59,000	\$0	\$59,000
5	Miscellaneous Tasks	\$17,000	\$1000	\$18,000



BUDGET OVERVIEW

Table 2. ROUGH Budget Summary PY26 CCLEAN Program

	CCLEAN Budget		
Program Year	AMS	Other Costs	TOTAL BUDGET
PY25	\$568,516*	\$67,038	\$635,555*
PY26 (excl river POPs)	\$527,000*	\$65,000	\$592,000*
PY26	\$617,000*	\$76,000	\$693,000*

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, and

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

