

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

In the matter of:	)	
	)	
<b>MARTINEZ REFINING</b>	)	<b>SETTLEMENT AGREEMENT AND</b>
<b>COMPANY LLC, CONTRA</b>	)	<b>STIPULATION FOR ENTRY OF</b>
<b>COSTA COUNTY</b>	)	<b>ADMINISTRATIVE CIVIL LIABILITY</b>
	)	<b>ORDER</b>
<b>Effluent Limitation Violations,</b>	)	
<b>Unauthorized Discharges, and</b>	)	
<b>Late Report (NPDES Permit</b>	)	<b>ORDER R2-2024-1041</b>
<b>CA0005789, Orders R2-2017-</b>	)	
<b>0039 and R2-2022-0034)</b>	)	
	)	

**Section I: INTRODUCTION**

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Order) is entered into by and between the California Regional Water Quality Control Board San Francisco Bay Region's (Regional Water Board's) Prosecution Team (Prosecution Team) and Martinez Refining Company LLC (MRC) (collectively, Parties), and is presented to the Regional Water Board, or its delegate, for adoption as an Order by settlement pursuant to Porter Cologne Water Quality Control Act (Water Code) section 13323 and Government Code section 11415.60. This Order resolves all the violations alleged herein by the imposition of administrative civil liability against MRC in the amount of **\$4,482,000**.

**Section II: RECITALS**

1. MRC, owns and operates the Martinez Refinery located at 3495 Pacheco Boulevard, Martinez, California in Contra Costa County (Facility). The Facility is a petroleum refinery that produces a broad range of petroleum products.
2. The Facility has a wastewater treatment plant that treats process wastewater, non-process wastewater, sanitary wastewater, and stormwater runoff from refinery process and non-process areas. NPDES permit CA0005789 (Permit), set forth in Regional Water Board Orders R2-2017-0039 and R2-2022-0034, establishes waste discharge requirements for Facility wastewater treatment and discharge.
3. MRC allegedly violated its Permit in five instances.

- a. **Violation A.** The Prosecution Team alleges MRC exceeded certain effluent limitations contained in its Permit 25 times. These exceedances occurred between January 1 and March 5, 2023, April 1 and April 30, 2023, and on May 14, and July 25, 2023, during which periods MRC discharged a combined total of approximately 477 million gallons of wastewater via Discharge Point 001 above effluent limitations for *Enterococcus*, total suspended solids, nickel, acute toxicity, and pH. The specific effluent violations are set forth in Attachment A, which is attached hereto and incorporated herein by reference
- b. **Violation B.** The Prosecution Team alleges MRC violated Discharge Prohibition 3.1 of Order R2-2017-0039 and Clean Water Act section 301 by discharging approximately 72,645 gallons of partially treated wastewater to a nearby marsh, a water of the United States, on October 27, 2022. Blockage in a pipeline prevented the wastewater from flowing through the selenium processing unit and granular activated carbon treatment, resulting in an overflow into the marsh.
- c. **Violation C.** The Prosecution Team alleges MRC violated Discharge Prohibition 3.1 of Order R2-2022-0034 and Clean Water Act section 301 by discharging 11.2 million gallons (MG) of partially treated process wastewater and stormwater to a nearby marsh, a water of the United States, without authorization on January 4, 2023. Stormwater resulting from a series of large storms that occurred in late December 2022 and early January 2023 exceeded the Facility's capacity for storm water management, and comingled process wastewater (approximately 3 MG) and stormwater (approximately 8 MG) were pumped from a storage pond into the marsh to prevent severe flooding of process areas within the Facility.
- d. **Violation D.** The Prosecution Team alleges MRC violated Discharge Prohibition 3.1 of Order R2-2022-0034 and Clean Water Act section 301 by discharging 471,100 gallons of partially treated process wastewater to a water retention area that is hydrologically connected to McNabney Marsh, a water of the United States, without authorization on June 7, 2023. A break in a cement-encased pipe used to carry process water caused a spill to an uncontained area, and the spilled wastewater flowed downslope to a parking lot drain and through the stormwater system to the water retention area and McNabney Marsh.
- e. **Violation E.** The Prosecution Team alleges MRC failed to submit a technical report on Climate Change Adaptation by the required deadline. On January 8, 2021, the Regional Water Board Executive Officer directed MRC to submit the technical report by February 1, 2022, pursuant to Water Code section 13383. The report required technical information on the Facility's vulnerabilities to sea-level rise, groundwater rise, changing

climate, and power outages, and associated adaptation strategies. On January 25, 2022, MRC requested a four-month extension of the deadline to June 1, 2022. The Executive Officer granted this request on January 27, 2022. However, MRC did not meet the extended deadline and did not submit the technical report until October 10, 2023.

4. To resolve the violations alleged in section II, paragraph 3, by consent and without further administrative proceedings, the Parties agree to the imposition of an administrative civil liability penalty of **\$4,482,000** against MRC. The Prosecution Team calculated the proposed liabilities using Steps 1 through 10 of the State Water Resources Control Board's (State Water Board) Water Quality Enforcement Policy (Enforcement Policy) (October 2017), as set forth in Attachment A.
5. MRC does not dispute the occurrence of the discharges alleged in section II, paragraph 3 of this Order, but believes the discharges were subject to applicable defenses under the Clean Water Act or were caused by circumstances unknown to and/or beyond MRC's reasonable control, including the occurrence of an unexpectedly large series of storm events. Nevertheless, MRC engaged in settlement negotiations and agreed to settle this matter with the Prosecution Team without administrative or civil adjudication of any issue of fact or law, and to present this Order to the Regional Water Board or its delegate for adoption as an Order by settlement, pursuant to Water Code section 13323 and Government Code section 11415.60.
6. The Prosecution Team contends the resolution of the alleged violations is fair and reasonable and fulfills its enforcement objectives. The Prosecution team further asserts no additional action is warranted concerning the violations, except as provided in this Order; and that this Order is in the public's best interest.

### **Section III: STIPULATIONS**

The Parties incorporate the foregoing Recitals and stipulate to the following:

1. **Administrative Civil Liability:** MRC hereby agrees to the imposition of an administrative civil liability penalty in the amount of **\$4,482,000** to resolve the alleged violations set forth in section II, as follows:
  - a. No later than 45 days after the Regional Water Board or its delegate signs this Order, MRC shall mail a check for **\$2,241,000.00** made payable to "State Water Pollution Cleanup and Abatement Account," referencing the Order number on page one to:

State Water Resources Control Board Accounting Office  
Attn: ACL Payment

P.O. Box 1888  
Sacramento, CA 95812-1888

MRC shall email a copy of the check to the State Water Board's Office of Enforcement (to Asa Marie Standfeldt at [asa.standfeldt@waterboards.ca.gov](mailto:asa.standfeldt@waterboards.ca.gov)), and to the Regional Water Board (to Carina Cornejo at [carina.cornejo@waterboards.ca.gov](mailto:carina.cornejo@waterboards.ca.gov)).

- b. The Parties agree the remaining **\$2,241,000** of the administrative civil liability penalty amount shall be paid toward completion of the following Supplemental Environmental Projects (SEPs):
  - i. The Parties agree that \$1,046,000 of the administrative civil liability shall be permanently satisfied and suspended pending the funding and completion of the *Peyton Slough Marshes Water Quality Improvements and Management Project* (Peyton Slough SEP) described in section III, paragraph 2a., and Attachment B, which is incorporated herein by reference. No later than 45 days after the Regional Water Board or its delegate signs this Order, MRC shall mail a check for \$1,046,000, made payable to "Contra Costa Resource Conservation District," which is responsible for completing the Peyton Slough SEP, referencing the Order number on page one to:

Contra Costa Resource Conservation District  
Attn: Heidi Petty, Peyton Slough SEP  
2001 Clayton Road, Suite 200  
Concord, CA 94520
  - ii. The Parties agree that \$153,600 of the administrative liability shall be permanently satisfied and suspended pending the funding and completion of the *Martinez Watershed Rangers Program SEP* (Martinez Watershed Rangers SEP) described in section III, paragraph 2b., and Attachment C, which is incorporated herein by reference. No later than 45 days after the Regional Water Board or its delegate signs this Order, MRC shall mail a check for \$153,600, made payable to "Earth Island Institute," which is responsible for completing this SEP, referencing the Order number on page one to:

KIDS for the BAY  
Attn: Mandi Billinge, Martinez Watershed Rangers SEP  
1771 Alcatraz Avenue  
Berkeley, CA 94703
  - iii. The Parties agree that \$1,041,400 of the administrative liability shall be used to fund the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) SEPs described in section III, paragraph

2c., and Attachment D, incorporated herein by reference, and shall be treated as a permanently satisfied and suspended administrative civil liability for the purpose of this Order. MRC's SEP obligations related to the RMP SEPs shall be satisfactorily completed, and \$1,041,400 will be permanently satisfied and suspended upon the San Francisco Estuary Institute's (SFEI's), which is responsible for completing the RMP SEPs, written notification to the Regional Water Board and MRC acknowledging the payment of the \$1,041,400 from MRC and that the funds will be spent on the RMP SEPs projects described in section III, paragraph 2c., and Attachment D in accordance with the terms of this Order. SFEI's annual and quarterly financial reports to the Regional Water Board shall be considered a final post-project accounting of expenditures.

No later than 45 days after the Regional Water Board or its delegate signs this Order, MRC shall mail a check for \$1,041,400, made payable to "Regional Monitoring Program," referencing the Order number on page one to:

Regional Monitoring Program  
c/o San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804

MRC shall email a copy of the checks to the State Water Board, Office of Enforcement (to Asa Standfeldt at [asa.standfeldt@waterboards.ca.gov](mailto:asa.standfeldt@waterboards.ca.gov)), and to the Regional Water Board (to Carina Cornejo at [carina.cornejo@waterboards.ca.gov](mailto:carina.cornejo@waterboards.ca.gov)).

## 2. Supplemental Environmental Project (SEP) Descriptions:

As described in section III, paragraph 1, MRC will fund the Peyton Slough Marshes Water Quality Improvements and Management Project SEP, Martinez Watershed Rangers SEP, and four RMP SEPs.

- a. The Peyton Slough SEP will improve water circulation and water quality within a marsh adjacent to Carquinez Strait that includes Peyton Channel and McNabney Marsh. This project will also assess sediment quality and distribution within this system to evaluate methods of further enhancing water quality and marsh habitat. The Contra Costa Resource Conservation District will manage the project. Attachment B further describes the SEP and its project milestones, budget, and reporting schedule.
- b. The Martinez Watershed Rangers SEP coordinates and supervises watershed stewardship and trash-cleanup projects with local schools. Students will perform projects with assistance from their teachers and

families. The primary goal of each project is trash removal from nearby neighborhoods, parks, and waterways. In the process, the SEP will raise awareness of watershed health and social behavior that contributes to non-point source pollution. The Watershed Rangers Program prioritizes projects in disadvantaged and environmental justice communities. Earth Island Institute/KIDS for the BAY will manage this project. Attachment C further describes the SEP and its project milestones, budget, and reporting schedule.

- c. The RMP SEPs will fund four high priority projects to provide information needed to support management of water quality in San Francisco Bay. The projects include *PCBs in San Leandro Bay*, *Sediment Dynamics in a North Bay Fluvially Influenced Salt Marsh*, *Sediment Conceptual Models for San Pablo Bay and Suisun Bay*, and *Microplastics in San Francisco Bay Sport Fish*:

- *PCBs in San Leandro Bay* will provide a comprehensive study to develop the San Francisco Bay PCBs (polychlorinated biphenyls) model to inform review and revision of the San Francisco Bay total maximum daily load (TMDL).
- *Sediment Dynamics in a North Bay Fluvially Influenced Salt Marsh* will assess sediment fluxes in a mudflat–salt marsh environment to determine the relative importance of fluvial versus Bay-derived sediment to long term rates of accretion in this and other restored marshes, and to inform future marsh restoration prioritization and methods.
- *Sediment Conceptual Models for San Pablo Bay and Suisun Bay* will compile and assess information to document understanding of the dynamic processes (between marshes and mudflats, changes in the erodible sediment pool) in the bays, and evaluate local tributary sediment loads and the tributary-marsh-erodible sediment pool pathway. Results will inform sediment management associated with dredging and marsh resilience, and adaptation to and protection from sea level rise
- *Microplastics in San Francisco Bay Sport Fish* will assess microplastics in typically consumed fish from throughout the Bay to determine the level of exposure to microplastics in the Bay food web and human consumers.

SFEI will manage these projects. Attachment D further describes these SEPs and their project milestones, budgets, and reporting schedules.

### **3. Representations and Agreements Regarding the SEPs**

- a. As a material condition for the Regional Water Board's acceptance of this Order, MRC represents that it will use the suspended liability of **\$1,199,600** (Suspended SEP Amount) to fund implementation of the Peyton Slough and Martinez Watershed Rangers SEPs, as set forth in section III, paragraph 1, and Attachments B and C of this Order. MRC understands that implementation of the SEPs by the designated third parties, in their entirety and in accordance with the implementation schedules and budgets set forth in Attachments B, and C, represents a material condition of this settlement of liability between MRC and the Regional Water Board.
- b. MRC shall take steps to ensure that the party responsible for implementation of each SEP provides certified, written reports describing the SEP implementation progress to the Regional Water Board as described in Attachments B and C, including an accounting of the expenditures made during the reporting period.
- c. On or before December 31, 2028, MRC shall request final completion reports from the parties, which are described in Attachments B and C, and are incorporated herein by reference, from the parties implementing the SEPs. Additionally, MRC shall request from these parties written statements, signed under penalty of perjury, documenting their expenditures during the SEPs completion period. After reviewing the reports for completeness, MRC shall, within 15 business days, provide copies of these reports to the Regional Water Board.
- d. MRC further agrees the Regional Water Board has the right to require, at MRC's expense, a third-party audit of the funds expended to implement the SEPs. MRC further agrees that it bears ultimate responsibility for ensuring the third-party entities completing the SEPs meet all deadlines and requirements specified in Attachments B and C, which are incorporated herein by reference, which deadlines may be extended as set forth in subparagraph f. below.
- e. Whenever MRC, or its agents or subcontractors, publicize one or more SEP elements, the sign, document, article, or other publication, shall state in a prominent manner that the project is undertaken as part of a settlement of a Regional Water Board enforcement action against MRC.
- f. The Executive Officer or its delegate may extend the SEP deadlines contained in Attachments B and C of this Order if the party responsible for implementation of the SEP demonstrates delays from circumstances beyond its reasonable control, so long as such responsible party continues to undertake appropriate measures to meet the deadlines. The responsible party shall make any deadline extension request in writing. Any approval of an extension by the Executive Officer must be in writing.

- g. Upon MRC's satisfaction of its obligations under this Order, including completion of the SEPs and any audits, the Executive Officer shall issue a "Satisfaction of Order" terminating any further obligations under this Order, permanently suspending the remaining penalty as satisfied, and resolving the Administrative Civil Liability proceedings.
4. **SEP Oversight:** The Regional Water Board will oversee the implementation of the SEPs. Oversight costs are not included in the SEP Amount.
5. **Regional Water Board Not Liable:** The Regional Water Board and its members, staff, attorneys, and representatives shall not be liable for any injury or damage to persons or property resulting from negligent or intentional acts or omissions by MRC or its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Order. The Regional Water Board, its members, and its staff shall not be held as parties to, or guarantors of, any contract entered into by MRC or its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Order.
6. **Compliance with Applicable Laws:** MRC understands that payment of administrative civil liability in accordance with the terms of this Order and/or compliance with the terms of this Order is not a substitute for compliance with applicable laws and regulations, and that continuing violations of the type alleged herein may subject it to further enforcement, including additional administrative civil liability.
7. **Party Contacts for Communications related to this Order:**

**For the Regional Water Board:**

Carina Cornejo  
San Francisco Bay Regional Water  
Quality Control Board  
1515 Clay Street, 14th Floor  
Oakland, CA 94612  
[carina.cornejo@waterboards.ca.gov](mailto:carina.cornejo@waterboards.ca.gov)  
(510) 622-2302

**Counsel:**

Asa Marie Standfeldt  
State Water Resources Control Board,  
Office of Enforcement  
801 K Street, Suite 2300  
Sacramento, CA 95814  
[asa.standfeldt@waterboards.ca.gov](mailto:asa.standfeldt@waterboards.ca.gov)  
Office: (916) 322-5327

**For MRC:**

Michael Marlowe  
Environmental Manager  
Martinez Refining Company LLC  
3485 Pacheco Boulevard  
Martinez, California 94553  
[michael.marlowe@pbfenergy.com](mailto:michael.marlowe@pbfenergy.com)  
(925) 313-3705

**Counsel:**

Roberto M. Durango  
Martinez Refining Company LLC  
3495 Pacheco Blvd.  
Martinez, CA 94553  
[roberto.durango@pbfenergy.com](mailto:roberto.durango@pbfenergy.com)  
Office: (925) 313-5176  
Mobile: (925) 387-9975



8. **Attorney Fees and Costs:** Except as otherwise provided herein, each Party shall bear all attorney fees and costs incurred pursuant to this Order.
9. **Matters Addressed by this Order:** Upon the Regional Water Board's or its delegate's adoption, this Order represents a final and binding resolution and settlement of the alleged violations contained in section II, as of the effective date of this Order. The provisions of this paragraph are expressly conditioned on full payment of the administrative civil liability by the deadline specified in section III, paragraph 1.
10. **Public Notice:** MRC understands and acknowledges this Order must be posted on the Regional Water Board's website for a 30-day public review-and-comment period prior to consideration by the Regional Water Board or its delegate. If significant new information is received that reasonably affects the propriety of presenting this Order to the Regional Water Board or its delegate for adoption, the Prosecution Team may, after consultation with MRC, unilaterally declare this Order void and decide not to present it to the Regional Water Board or its delegate. Except in such circumstance, MRC agrees that it may not rescind or otherwise withdraw its approval of this proposed Order.
11. **Addressing Objections Raised During Public Comment Period:** The Parties agree the procedure contemplated for public review of this Order and the Regional Water Board's or its delegate's adoption of this Order is lawful and adequate. The Parties understand the Regional Water Board or its delegate has the authority to require a public hearing on this Order. If procedural objections are raised and the Regional Water Board or its delegate requires a public hearing prior to the Order becoming effective, the Parties agree to meet and confer regarding any such objections, and may agree to revise or adjust this Order as necessary or advisable under the circumstances.
12. **Interpretation:** This Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. Both Parties are represented by counsel in this matter.
13. **Modification:** The Parties shall not modify this Order by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Regional Water Board or its delegate.
14. **If the Order Does Not Take Effect:** If the Order does not take effect because the Regional Water Board or its delegate does not approve it, or because the State Water Board or a court vacates it in whole or in part, the Parties acknowledge they expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liability for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree all oral and written statements

and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing, or in any other administrative or judicial proceeding. The Parties agree to waive any and all objections based on settlement communications in this matter related to prejudice or bias of any Regional Water Board members or their advisors, or any other objections that are premised in whole or in part on the fact that Regional Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Order and, therefore, may have formed impressions or conclusions prior to any contested evidentiary hearing on the violations alleged herein in this matter. The parties also agree to waive any and all objections based on laches, delay, or other equitable defenses related to the period for administrative or judicial review to the extent such period has been extended by these settlement proceedings.

15. **Waiver of Hearing:** MRC has been informed of the rights Water Code section 13323, subdivision (b), provides and, if the settlement is adopted by the Regional Water Board or its delegate, hereby waives its right to a hearing before the Regional Water Board prior to the Order's adoption. However, if the settlement is not adopted, or if the matter proceeds to the Regional Water Board or State Water Board for hearing, MRC does not waive its right to a hearing before an order is imposed.
16. **Waiver of Right to Petition or Appeal:** Except in the event the Order is not adopted by the Regional Water Board or its delegate, MRC hereby waives its right to petition the Regional Water Board's or its delegate's adoption of the Order for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate court. This explicit waiver of rights includes potential future decisions by the Regional Water Board or its delegate directly related to this Order, including but not limited to time extensions and SEP completion.
17. **Covenant Not to Sue:** MRC covenants not to sue or pursue any administrative or civil claims against the State of California, any State agency, or its officers, Board members, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by this Order, except that this covenant is not intended to bar and does not limit MRC's rights to sue over other Regional Water Board orders (e.g., permits or cease and desist orders) or limit MRC's rights to defend against any additional enforcement or other actions taken by the Regional Water Board or its employees, representatives, agents, or attorneys. Moreover, this covenant shall not release any claims or complaints against any State agency or the State of California, its officers, Board members, employees, representatives, agents, or attorneys to the extent that such covenant would be prohibited by California Business and Professions Code section 6090.5 or by any other statute, rule, regulation, or legal principle of similar effect.

- 18. Necessity for Written Approvals:** All approvals and decisions of the Regional Water Board or its delegate under the terms of this Order shall be communicated to MRC in writing. No oral advice, guidance, suggestions, or comments from Regional Water Board employees or officials regarding submissions or notices shall be construed to relieve MRC of its obligation to obtain any final written approval this Order requires.
- 19. Authority to Bind:** Each person executing this Order in a representative capacity represents and warrants that he or she is authorized to execute this Order on behalf of, and to bind, the entity on whose behalf he or she executes the Order.
- 20. No Third-Party Beneficiaries:** This Order is not intended to confer any right or obligation on any third party, and no third party shall have any right of action under this Order for any cause whatsoever.
- 21. Severability:** This Order is severable; if any provision is found to be invalid, the remainder shall remain in full force and effect.
- 22. Counterpart Signatures; Facsimile and Electronic Signature:** This Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document. Further, this Order may be executed by facsimile or electronic signature, and any such facsimile or electronic signature by any Party hereto shall be deemed to be an original signature and shall be binding on such Party to the same extent as if such facsimile or electronic signature were an original signature.
- 23. Effective Date:** This Order shall be effective and binding on the Parties upon the date the Regional Water Board or its delegate enters the Order incorporating the terms of this Order.

**IT IS SO STIPULATED.**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION, PROSECUTION TEAM**

Date: 10/30/2024

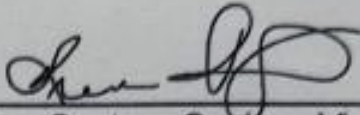
By: **Bill Johnson** Digitally signed by Bill Johnson  
Date: 2024.10.30 13:38:21 -07'00'  
\_\_\_\_\_  
Bill Johnson,  
Chief, NPDES Wastewater & Enforcement  
Division

Approved as to form:

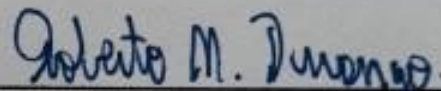
By: A.M. Standfeldt  
Asa Marie Standfeldt, Staff Counsel  
State Water Resources Control Board  
Office of Enforcement

**MARTINEZ REFINING COMPANY LLC**

Date: 10/28/2024

By:   
Trecia Canty, Senior Vice President,  
General Counsel, & Secretary  
Martinez Refining Company LLC

Approved as to form:

By:   
Roberto M. Durango, Refinery Attorney  
Martinez Refining Company LLC

## ORDER OF THE REGIONAL WATER BOARD

1. This Order incorporates the foregoing sections I through III by this reference as if set forth fully herein.
2. In accepting this Order, the Regional Water Board or its delegate has considered, where applicable, each of the factors prescribed in Water Code section 13327 and 13385, subdivision (e), and has applied the State Water Board's Enforcement Policy, which is incorporated by reference [herein](#). The consideration of these factors and application of the Enforcement Policy are based on information the Prosecution Team obtained in investigating the allegations set forth in this Order or otherwise provided to the Regional Water Board.
3. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board or its delegate finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 et seq.) in accordance with 14 California Code of Regulations (CCR) section 15321(a)(2). Additionally, this Order generally accepts the plans proposed for the SEP prior to implementation. Mere submittal of plans is exempt from CEQA because submittal will not cause a direct or indirect physical change in the environment.
4. The Executive Officer is authorized to refer this matter directly to the Attorney General for enforcement if MRC fails to perform any of its obligations under this Order.

**IT IS HEREBY ORDERED** pursuant to Water Code section 13323 and Government Code section 11415.60, on behalf of the California Regional Water Quality Control Board, San Francisco Bay Region.

\_\_\_\_\_  
Eileen White  
Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region

\_\_\_\_\_  
Date

Settlement Agreement and Stipulated Administrative Civil Liability  
Martinez Refining Company LLC

**ATTACHMENT A**

**Factors in Determining Stipulated Administrative Civil Liability  
for  
Martinez Refining Company LLC  
NPDES Permit Violations  
in  
Martinez, California**

## **EXHIBIT A**

### **Factors in Determining Administrative Civil Liability**

#### **Martinez Refining Company LLC NPDES Permit Violations Martinez, California**

The State Water Resources Control Board Water Quality Enforcement Policy (Enforcement Policy) establishes a methodology for assessing administrative civil liability. Use of the methodology addresses the factors required by Water Code sections 13327 and 13385, subdivision (e). Each factor in the Enforcement Policy and its corresponding category, adjustment, and amount for the alleged violation is presented below. The Enforcement Policy should be used as a companion document in conjunction with this administrative civil liability assessment since the penalty methodology and definition of terms are not replicated herein. The Enforcement Policy is at:

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2017/040417\\_9\\_final%20adopted%20policy.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/040417_9_final%20adopted%20policy.pdf)

### **ALLEGED VIOLATIONS**

Martinez Refining Company LLC (Discharger) owns and operates the Martinez Refinery in Contra Costa County (Facility). The Facility is a petroleum refinery that produces a broad range of petroleum products. The Facility's wastewater treatment plant treats process wastewater, non-process wastewater, sanitary wastewater, and stormwater runoff from refinery process and non-process areas. The treated wastewater is discharged to the Carquinez Strait via Discharge Point 001 pursuant to NPDES Permit CA0005789 (Permit), as set forth most recently in San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Orders R2-2017-0039 and R2-2022-0034.<sup>1</sup> The Prosecution Team alleges the Discharger violated the Permit by exceeding its effluent limitations 25 times and discharging without authorization three times (October 27, 2022, January 4, 2023, and June 7, 2023). The Prosecution Team also alleges the Discharger violated its January 8, 2021, Water Code Section 13383 Order Requiring Submittal of Information on Climate Change Adaptation (13383 Order) by failing to provide the requested information.

The Discharger represents that many of the alleged Permit limit exceedances were due to extreme, back-to-back storm events that occurred in December 2022-January 2023 and caused an influx of millions of gallons of storm water into the Facility's wastewater treatment system and forcing the discharge of partially treated water to avoid severe property damage and threats to employee safety that would have been resulted from flooding of refinery process areas.

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<sup>1</sup> Order R2-2022-0034 became effective January 1, 2023, and superseded Order R2-2017-0039.



The final liabilities are summarized below:

- Effluent Limitation Violations – \$209,000
- Unauthorized Discharge: October 27, 2022 – \$619,000
- Unauthorized Discharge: January 4, 2023 – \$2,751,000
- Unauthorized Discharge: June 7, 2023 – \$628,000
- 13383 Climate Change Adaptation: Failure to Comply – \$275,000

The total proposed final liability for the alleged violations described below is \$4,482,000.

### **Alleged Effluent Limitation Violations**

As shown in the table below, from January 1, 2023, through March 5, 2023; from April 1 through April 30, 2023; and on May 14 and July 25, 2023, the Discharger discharged a combined total of approximately 477 million gallons of wastewater via Discharge Point 001 that violated the Permit's effluent limitations for *Enterococcus*, total suspended solids, nickel, acute toxicity, and pH.

Date	Violation	Period	Unit	Limit	Result
01/01/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	250
01/01/23	Total Suspended Solids	Daily	lbs/day	2300	2700
01/08/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	270
01/09/23	Total Suspended Solids	Daily	lbs/day	2300	6400
01/10/23	Total Suspended Solids	Daily	lbs/day	2300	8200
01/11/23	Nickel	Daily	ug/L	72	76
01/12/23	Nickel	Daily	ug/L	72	78
01/14/23	Nickel	Daily	ug/L	72	83
01/15/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	120
01/15/23	Nickel	Daily	ug/L	72	80
01/22/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	130
01/23/23	Acute Toxicity (90 <sup>th</sup> percentile)	11-sample	% survival	70	57
01/29/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	150
01/31/23	<i>Enterococcus</i> (<10% of samples)	Month	% of samples	<10	18
02/05/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	190
02/12/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	140
02/19/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	150
02/26/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	180
02/27/23	pH (minimum)	Daily	standard units	6.5	6.4
02/28/23	<i>Enterococcus</i> (<10% of samples)	Month	% of samples	<10	18
03/05/23	<i>Enterococcus</i> (geometric mean)	6-week	CFU/100mL	93	140
04/14/23	Nickel	Daily	ug/L	72	88
04/30/23	Nickel	Month	ug/L	43	46
05/14/23	Nickel	Daily	ug/L	72	83
07/25/23	Total Suspended Solids	Daily	lbs/day	2300	3700

The allowable six-week rolling geometric mean for *Enterococcus* bacteria is 93 colony forming units per 100 milliliters (CFU/100mL).<sup>2</sup> For a given sample, compliance with this effluent limitation is based on all the samples collected over the previous six weeks. Because the Permit became effective January 1, the days out of compliance began on January 1. The violations continued as samples were collected on January 8, 15, 22, and 29; February 5, 12, 19, and 26; and March 5, 2023. In February 2023, the Discharger also violated the effluent limitation that no more than 10 percent of all *Enterococcus* bacteria samples collected in a calendar month may exceed 890

<sup>2</sup> Order R2 2022-0034, section 4.1.1, Table 4.

CFU/100mL. However, the 28 days of this violation took place during the same period as the four violations of the six-week rolling geometric mean effluent limit. Thus, the total number of days of noncompliance from January 1, 2023, through March 5, 2023, was 64, during which 326 million gallons of wastewater were discharged.

The Discharger violated both the daily and monthly effluent violations for nickel. On January 11, 12, 14, and 15; April 14; and May 14, 2023, the Discharger violated the maximum daily effluent limit, 72 micrograms per liter (ug/L). In April 2023, the Discharger also violated the monthly average effluent limit for nickel, 43 ug/L.<sup>3</sup> The January nickel violations overlapped the January *Enterococcus* violations and thus do not represent additional days of noncompliance or additional discharge volumes. The April and May nickel violations add 31 days of noncompliance, during which 146 million gallons of wastewater were discharged.

On January 1, 9, and 10, and July 25, 2023, the Discharger violated the maximum daily effluent limit for total suspended solids (TSS), 2,300 pounds per day (lbs/day).<sup>4</sup> The January TSS violations overlapped the January *Enterococcus* violations and thus do not represent additional days of noncompliance or discharge volumes. The July TSS violation adds one day of noncompliance, during which 5.3 million gallons of wastewater were discharged.

On January 23, 2023, the Discharger violated the acute toxicity effluent limitation (the 11-sample 90<sup>th</sup> percentile may not exhibit less than 70 percent survival).<sup>5</sup> The Discharger reported an 11-sample 90<sup>th</sup> percentile of 57 percent survival for the period beginning on November 14, 2022, through January 23, 2023, with acute toxicity test results below 70 percent on December 28, 2022, and January 23, 2023. Because the Permit became effective January 1, 2023, and this violation overlapped the *Enterococcus* violations, this violation does not represent additional days of noncompliance or discharge volumes.

On February 27, 2023, the Discharger violated the pH effluent limitation; the minimum pH is to be above 6.5.<sup>6</sup> This violation overlapped the *Enterococcus* violations and thus does not represent additional days of noncompliance or discharge volumes.

The Discharger is subject to administrative civil liability for the alleged effluent limitation violations described above pursuant to Water Code section 13385, subdivision (a)(2). The factors considered in determining the liability for the violations, and the Prosecution Team's conclusions with respect to each of these factors, are described below.

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<sup>3</sup> Order R2 2022-0034, section 4.1.1, Table 4.

<sup>4</sup> Order R2 2022-0034, section 4.1.1, Table 4.

<sup>5</sup> Order R2 2022-0034, section 4.1.3.2.

<sup>6</sup> Order R2 2022-0034, section 4.1.1, Table 4.

<b>Penalty Factor</b>	<b>Score</b>	<b>Discussion</b>
Degree of Toxicity of the Discharge Violations	2	<p>A score of 2 (moderate) is appropriate because the “Discharged material poses a moderate risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material have some level of toxicity or pose a moderate level of threat to potential receptors).” (Enforcement Policy, p. 12.)</p> <p>The violations listed above posed a moderate risk or threat to potential receptors because the discharges contained, in various combinations, bacteria at levels exceeding human health standards, nickel exceeding the water quality objective, acute toxicity to aquatic life, and high TSS concentrations that could contain harmful constituents, such as hydrocarbons and other byproducts of refinery operations, which could be absorbed or trapped in fish gills or deposited in sediment.</p>
Harm or Potential Harm to Beneficial Uses for Discharge Violations	2	<p>A score of 2 (below moderate) is appropriate because there was “less than moderate harm or potential harm to beneficial uses. A score of below moderate is typified by observed or reasonably expected potential impacts, but based on the characteristics of the discharge and applicable beneficial uses, harm or potential harm to beneficial uses is measurable in the short term, but not appreciable.” (Enforcement Policy, p. 12.)</p> <p>The effluent limit violations likely resulted in below moderate harm because, although the characteristics of the discharged material may have posed threats to potential receptors, the discharges received at least 16:1 dilution at the outfall. Therefore, the actual impacts may not have been appreciable over time.</p>
Susceptibility to Cleanup or Abatement	1	<p>A score of 1 is appropriate because the discharges commingled with the receiving waters and were not susceptible to cleanup or abatement. (Enforcement Policy, p. 13.)</p>
Deviation from Requirement	Major	<p>The effluent limit violations represent a major deviation from requirements because they rendered the requirements ineffective in their essential functions (i.e., maintaining water quality standards in the receiving waters). (Enforcement Policy, p. 14.)</p>
Per-Day Factor for Discharge Violations	0.15	<p>The Enforcement Policy states that, generally, effluent limit violations should be addressed on a per-day basis only. (Enforcement Policy, p. 13.)</p> <p>Enforcement Policy Table 2 contains per-day factors based on the Potential for Harm score and the Deviation from Requirement. (Enforcement Policy, p. 15.) A Potential for Harm score of 5 and a major Deviation from Requirement results in a per-day factor of 0.15.</p>
<b>Initial Liability</b>	<b>\$144,000</b>	<p>The Discharger violated various effluent limits from January 1 through March 5, 2023, a period of 64 days. The Discharger violated the monthly nickel effluent limit in April 2023, a period of 30 days. The Discharger violated two more daily effluent limit violations on May 14 and July 25, 2023, adding two more days to the total. Therefore, the initial liability calculated on a per-day basis for 96 days of violation is as follows:</p> <p>Initial Liability: \$144,000 = (\$10,000/day x (64+30+2 days) x 0.15)</p>

Penalty Factor	Score	Discussion
<b>Adjustments for Discharger Conduct</b>		
Culpability	1.2	A score of 1.2 (above neutral) is appropriate because a reasonable and prudent discharger would have more quickly identified the causes of the <i>Enterococcus</i> and nickel violations, and limited the duration of noncompliance, instead of allowing the violations to persist for months.
Cleanup and Cooperation	1.1	A score of 1.1 (above neutral) is appropriate because, while the Discharger was cooperative, its five-day reports lacked detail and failed to identify effective corrective actions, allowing the violations to persist.
History of Violations	1.1	A score of 1.1 is appropriate because the Discharger has a history of violations, as demonstrated by the following enforcement orders: <ul style="list-style-type: none"> <li>• Order R2-2021-1007: \$126,000 penalty for March 2020 effluent limit violations.</li> </ul>
<b>Total Base Liability</b>	<b>\$209,088</b>	The initial liability is multiplied by each factor related to the Discharger's conduct to determine the Total Base Liability as follows: $\$209,088 = \$144,000 \times 1.2$ (culpability) $\times 1.1$ (history of violations) $\times 1.1$ (cleanup and cooperation)
Ability to Pay and Continue in Business	No adjustment	The Enforcement Policy provides that if there is sufficient financial information to assess the violator's ability to pay the total base liability or to assess the effect of the total base liability on the violator's ability to continue in business, then the liability may be adjusted downward if warranted. PBF, the Discharger's parent corporation, is a large energy business with multiple refineries throughout the United States. It did not raise the issue of the ability to pay during negotiations. Therefore, the Prosecution Team concludes that the Discharger can pay the proposed liability without undue financial hardship.
Economic Benefit	little to none	The Enforcement Policy requires recovery of any economic benefit plus 10 percent derived from failure to implement controls that result in a violation. The Discharger may have received nominal economic benefits by failing to quickly control pollutant concentrations in its effluent, but because the Discharger was able to identify and eventually resolve ongoing treatment problems, it received little to no economic benefit.
<b>Other Factors as Justice May Require</b>		
Staff Costs	none	The Prosecution Team chose not to pursue staff costs.
Maximum Liability		Water Code sections 13385(c)(1) and (2) allow up to \$10,000 for each day in which the violation occurs; and \$10 for each gallon exceeding 1,000 gallons that is discharged and not cleaned up.
Minimum Liability		The Enforcement Policy and Water Code section 13385(h) and (i) require a \$3,000 mandatory minimum penalty for all serious violations and any non-serious violations that occur in a 180-day span, not counting the first three non-serious violations. Of the 25 violations, 18 met these criteria.  The Enforcement Policy also states that the final liability must be at least 10 percent higher than the economic benefit. (Enforcement Policy, p. 21.) The economic benefit derived from the alleged violations was negligible.

Penalty Factor	Score	Discussion
<b>Final Liability</b>	<b>\$209,000 (rounded)</b>	The final liability is the total base liability after adjusting for ability to pay, economic benefit, other factors, and maximum and minimum liabilities.

### **Alleged Unauthorized Discharge to Marsh (October 27, 2022)**

On October 27, 2022, the Discharger allegedly discharged 72,645 gallons of partially treated wastewater to a marsh, a water of the State and United States adjacent to its facility, in violation of Clean Water Act section 301, discharging pollutants to waters of the United States without authorization. This is also a violation of Order R2-2022-0034 discharge prohibition 3.1.

Water Code section 13385 and the Enforcement Policy allow the Regional Water Board to choose whether to pursue enforcement based on the number of days of violation or the volume discharged or both. The proposed penalty is based on the volume of the discharge. The Prosecution Team has considered each factor listed in the Enforcement Policy as presented below.

Penalty Factor	Score	Discussion
Degree of Toxicity of the Discharge Violations	3	A score of 3 (above-moderate) is appropriate because the “Discharged material poses an above-moderate risk or a direct threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceed known risk factors or there is substantial threat to potential receptors).” (Enforcement Policy, p. 12.)  The unauthorized discharge posed an above-moderate risk or threat to potential receptors because, although the discharge was partially-treated, it did not go through the selenium processing unit or granular activated carbon treatment, thus the wastewater was likely toxic to aquatic life. The discharge contained elevated levels of copper (17 ug/L), chemical oxygen demand (270 mg/L), cyanide (15 ug/L), nickel (22 ug/L), and selenium (300 ug/L).
Harm or Potential Harm to Beneficial Uses for Discharge Violations	4	A score of 4 (above moderate) is appropriate because there was “more than moderate harm or potential harm to beneficial uses. A score of above moderate is typified by observed or reasonably expected potential significant impacts, and involves potential for actual partial or temporary restrictions on, or impairment of, beneficial uses.” (Enforcement Policy, p. 13.)  The discharge likely caused above-moderate harm because it exceeded the water quality objectives for copper (2.5 ug/L), cyanide (2.9 ug/L), nickel (8.2 ug/L), and selenium (5.0 ug/L) developed to protect beneficial uses. The impacts could have persisted for some time because the undiluted discharge affected an area of the marsh that is not regularly subject to tidal flushing.
Susceptibility to Cleanup or Abatement	1	A score of 1 is appropriate because the discharge commingled with the receiving waters and the Discharger did not clean up 50 percent or more of the discharge. (Enforcement Policy, p. 13.)

<b>Penalty Factor</b>	<b>Score</b>	<b>Discussion</b>
Deviation from Requirement	Major	The discharge was a major deviation from requirement because it was not authorized by any State or federal permit. The Clean Water Act and Water Code require dischargers to apply for and obtain permits prior to discharge. These requirements were rendered ineffective in their essential functions. (Enforcement Policy, p. 14.)
Per-Gallon Factor for Discharge Violations	0.6	Enforcement Policy Table 2 contains per-day factors based on the Potential for Harm score and the Deviation from Requirement. (Enforcement Policy, p. 15.) A Potential for Harm score of 8 and a major Deviation from Requirement results in a per-gallon factor of 0.6.
<b>Initial Liability</b>	<b>\$429,870</b>	The initial liability, calculated using the per-gallon factor, \$10 per gallon, and the discharge volume minus 1,000 gallons, is as follows: Initial Liability: $\$429,870 = \$10/\text{gal} \times (72,645 \text{ gallons} - 1,000 \text{ gallons}) \times 0.6$
<b>Adjustments for Discharger Conduct</b>		
Culpability	1.2	A score of 1.2 (above neutral) is appropriate because a reasonable and prudent discharger would have prevented the discharge either by maintaining the splitter box or controlling the spilled material while it was pooling near the selenium processing unit, instead of allowing thousands of gallons to pond before discharging to an adjacent marsh.
Cleanup and Cooperation	1.2	A score of 1.2 (above neutral) is appropriate because, while the Discharger was cooperative, its five-day reports lacked detail and failed to identify corrective actions for spill response or cleanup, making similar discharges likely to occur in the future.
History of Violations	1.0	A score of 1.0 is appropriate because the Discharger does not have a history of enforcement against unauthorized discharges since acquiring the facility in 2020.
<b>Total Base Liability</b>	<b>\$619,013</b>	The initial liability is multiplied by each factor related to the Discharger's conduct to determine the Total Base Liability as follows: $\$619,013 = \$429,870 \times 1.2 \text{ (culpability)} \times 1.0 \text{ (history of violations)} \times 1.2 \text{ (cleanup and cooperation)}$
Ability to Pay and Continue in Business	No adjustment	The Enforcement Policy provides that if there is sufficient financial information to assess the violator's ability to pay the total base liability or to assess the effect of the total base liability on the violator's ability to continue in business, then the liability may be adjusted downward if warranted. PBF, the Discharger's parent corporation, is a large energy business with multiple refineries throughout the United States. It did not raise the issue of the ability to pay during negotiations. Therefore, the Prosecution Team concludes that the Discharger can pay the proposed liability without undue financial hardship.
Economic Benefit	\$11,000	The Enforcement Policy requires recovery of any economic benefit plus 10 percent derived from failure to implement controls that result in a violation. The blockage that caused the spill from the pipeline could have been avoided by more frequently cleaning out vegetation from Pond 5D. Assuming that cleaning out the vegetation from Pond 5D could cost roughly \$5,000 to 10,000, the maximum economic benefit would be roughly \$10,000. Adding 10 percent would result in \$11,000.

Penalty Factor	Score	Discussion
<b>Other Factors as Justice May Require</b>		
Staff Costs	none	The Prosecution Team chose not to pursue staff costs.
		Water Code sections 13385(c)(1) and (2) allow up to \$10,000 for each day in which the violation occurs; and \$10 for each gallon exceeding 1,000 gallons that is discharged and not cleaned up.
		The Enforcement Policy and Water Code section 13385(h) and (i) require a \$3,000 mandatory minimum penalty for all serious violations and any non-serious violations that occur in a 180-day span, not counting the first three non-serious violations. Of the 25 violations, 18 met these criteria.  The Enforcement Policy also states that the final liability must be at least 10 percent higher than the economic benefit. (Enforcement Policy, p. 21.) The economic benefit derived from the alleged violations was negligible.
<b>Final Liability</b>	<b>\$619,000 (rounded)</b>	The final liability amount is the total base liability after adjusting for ability to pay, economic benefit, other factors, and maximum and minimum liabilities.

### **Alleged Unauthorized Discharge to Marsh (January 4, 2023)**

On January 4, 2023, the Discharger allegedly discharged 11.2 million gallons of partially primary-treated process wastewater and stormwater at an unpermitted location to a marsh, a water of the State and United States, adjacent to its facility, in violation of Clean Water Act section 301, discharging pollutants to waters of the United States without authorization. Of this discharge, 3,126,000 gallons were process wastewater. This is also a violation of Order R2-2022-0034 discharge prohibition 3.1.

Water Code section 13385 and the Enforcement Policy allow the Regional Water Board to choose whether to pursue enforcement based on the number of days of violation or the volume discharged or both. The proposed penalty is based on the volume of the process wastewater in the discharge. Generally, any stormwater that comes in contact with process wastewater is considered process wastewater. The Prosecution Team chose to focus on the process wastewater prior to mixing with the stormwater due to the severity of the storm and the resulting large amount of stormwater. The process wastewater was likely much more toxic than the stormwater and thus of higher concern. The Prosecution Team has considered each factor listed in the Enforcement Policy as presented below.

Penalty Factor	Score	Discussion
Degree of Toxicity of the	4	A score of 4 (significant) is appropriate because the “Discharged material poses a significant risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material far



<b>Penalty Factor</b>	<b>Score</b>	<b>Discussion</b>
Discharge Violations		exceed risk factors and pose a significant threat to potential receptor uses)." (Enforcement Policy, p. 12.) The unauthorized discharge posed a significant threat to potential receptors because the discharge contained 3.1 million gallons of highly toxic, partially primary-treated refinery wastewater. At the time of sampling, the discharge had an acute toxicity test survival rate of zero percent.
Harm or Potential Harm to Beneficial Uses for Discharge Violations	4	A score of 4 (above moderate) is appropriate because there was "more than moderate harm or potential harm to beneficial uses. A score of above moderate is typified by observed or reasonably expected potential significant impacts, and involves potential for actual partial or temporary restrictions on, or impairment of, beneficial uses." (Enforcement Policy, p. 13.) The discharge likely caused above-moderate harm because it exceeded water quality objectives developed to protect beneficial uses. The impacts could have persisted for some time because the undiluted discharge affected an area of the marsh that is not regularly subject to tidal flushing.
Susceptibility to Cleanup or Abatement	1	A score of 1 is appropriate because the discharge commingled with the receiving water and was not susceptible to at least 50 percent cleanup or abatement. (Enforcement Policy, p. 13.)
Deviation from Requirement	Major	The discharge was a major deviation from requirement because it was not authorized by any State or federal permit. The Clean Water Act and Water Code require dischargers to apply for and obtain permits prior to discharge. These requirements were rendered ineffective in their essential functions. (Enforcement Policy, p. 14.)
Per-Day Factor for Discharge Violations	0.8	Enforcement Policy Table 2 contains per-day factors based on the Potential for Harm score and the Deviation from Requirement. (Enforcement Policy, p. 15.) A Potential for Harm score of 9 and a major Deviation from Requirement results in a per-day factor of 0.8.
<b>Initial Liability</b>	<b>\$2.50 million</b>	The maximum allowable per-gallon liability is \$10 per gallon. Because this was a high-volume discharge, the initial liability calculation uses \$1 per gallon, which is allowable under the Enforcement Policy (p. 14) for discharges in excess of two million gallons. The initial liability, calculated using the per-gallon factor, \$1 per gallon, and the discharge volume minus 1,000 gallons, is as follows: Initial Liability: \$2,500,000 = \$1/gal x (3,126,000 gallons – 1,000 gallons) x 0.8
<b>Adjustments for Discharger Conduct</b>		
Culpability	1.0	A score of 1.0 (neutral) is appropriate because, while a reasonable and prudent discharger would have isolated process wastewater from the stormwater ponds during the periods of intense rain, the Discharger attempted to maximize storage onsite prior to the storm.
Cleanup and Cooperation	1.1	A score of 1.1 (above neutral) is appropriate because the Discharger was unable to identify the amount of process water in the discharge for two weeks and delayed responses to Regional Water Board staff follow up questions for five or more days.

<b>Penalty Factor</b>	<b>Score</b>	<b>Discussion</b>
History of Violations	1.0	A score of 1.0 is appropriate because the Discharger does not have a history of enforcement against unauthorized discharges since acquiring the facility in 2020.
<b>Total Base Liability</b>	<b>\$2.75 million</b>	The initial liability is multiplied by each factor related to the Discharger's conduct to determine the Total Base Liability as follows: $\$2,750,000 = \$2,500,000 \times 1.0$ (culpability) $\times 1.0$ (history of violations) $\times 1.1$ (cleanup and cooperation)
Ability to Pay and Continue in Business	No adjustment	The Enforcement Policy provides that if there is sufficient financial information to assess the violator's ability to pay the total base liability or to assess the effect of the total base liability on the violator's ability to continue in business, then the liability may be adjusted downward if warranted. PBF, the Discharger's parent corporation, is a large energy business with multiple refineries throughout the United States. It did not raise the issue of the ability to pay during negotiations. Therefore, the Prosecution Team concludes that the Discharger can pay the proposed liability without undue financial hardship.
Economic Benefit	\$569,000	The Enforcement Policy requires recovery of any economic benefit plus 10 percent derived from failure to implement controls that result in a violation. One way to estimate the economic benefit for this discharge is to calculate the minimum costs to store 3.1 million gallons in 21,000-gallon Baker tanks. To store that volume for one week, 149 tanks could be used to hold the discharge volume for a week. Assuming a cost of \$2,800 per tank, the economic benefit would be about \$417,200. Assuming the stored waste could be processed onsite and that associated labor and miscellaneous costs would be \$100,000 or less, the economic benefit would be around \$517,200. Therefore, the economic benefit plus 10 percent is approximately \$569,000.
<b>Other Factors as Justice May Require</b>		
Staff Costs	none	The Prosecution Team chose not to pursue staff costs.
		Water Code sections 13385(c)(1) and (2) allow up to \$10,000 for each day in which the violation occurs; and \$10 for each gallon exceeding 1,000 gallons that is discharged and not cleaned up.
		The Enforcement Policy and Water Code section 13385(h) and (i) require a \$3,000 mandatory minimum penalty for all serious violations and any non-serious violations that occur in a 180-day span, not counting the first three non-serious violations.  The Enforcement Policy also states that the final liability must be at least 10 percent higher than the economic benefit. (Enforcement Policy, p. 21.) The economic benefit derived from the alleged violations was negligible.

Penalty Factor	Score	Discussion
<b>Final Liability</b>	<b>\$2.75 million</b>	The final liability amount is the total base liability after adjusting for ability to pay, economic benefit, other factors, and maximum and minimum liabilities.

### **Alleged Unauthorized Discharge to Water Retention Area (June 7, 2023)**

On June 7, 2023, the Discharger allegedly discharged 471,100 gallons of partially primary-treated process wastewater to a water retention area hydrologically connected to McNabney Marsh, a water of the State and United States, in violation of Clean Water Act section 301, discharging pollutants to waters of the United States without authorization. This is also a violation of Order R2-2022-0034 discharge prohibition 3.1. The discharge occurred as a result of a break in a cement-encased pipeline that was not discovered until water was observed spilling from the section of the pipeline where the break occurred. The Discharger was unable to clean up 328,314 gallons of the unauthorized discharge.

Water Code section 13385 and the Enforcement Policy allow the Regional Water Board to choose whether to pursue enforcement based on the number of days of violation or the volume discharged or both. The proposed penalty is based on the volume of the discharge. The Prosecution Team has considered each factor listed in the Enforcement Policy as presented below.

Penalty Factor	Score	Discussion
Degree of Toxicity of the Discharge Violations	4	<p>A score of 4 (significant) is appropriate because the “Discharged material poses a significant risk or threat to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material far exceed risk factors and pose a significant threat to potential receptor uses).” (Enforcement Policy, p. 12.)</p> <p>The unauthorized discharge described above posed a significant threat to potential receptors because the discharge contained 328,314 gallons of highly toxic, partially primary-treated refinery wastewater. Similarly treated effluent sampled at the same time as the discharge contained elevated levels of biochemical oxygen demand (241 mg/L), copper (22 ug/L), chemical oxygen demand (1,070 mg/L), cyanide (265 ug/L), oil and grease (61 mg/L), and selenium (137 ug/L), and had a pH of 11.</p>
Harm or Potential Harm to Beneficial Uses for Discharge Violations	4	<p>A score of 4 (above moderate) is appropriate because there was “more than moderate harm or potential harm to beneficial uses. A score of above moderate is typified by observed or reasonably expected potential significant impacts, and involves potential for actual partial or temporary restrictions on, or impairment of, beneficial uses.” (Enforcement Policy, p. 13.)</p> <p>The discharge likely caused above-moderate harm because it exceeded the water quality objectives for copper (2.5 ug/L), cyanide (2.9 ug/L), nickel (8.2 ug/L), and selenium (5.0 ug/L) developed to protect beneficial uses. The impacts could have persisted for some time because the undiluted discharge affected a shallow area connected to McNabney Marsh that is not regularly subject to tidal flushing.</p>

<b>Penalty Factor</b>	<b>Score</b>	<b>Discussion</b>
Susceptibility to Cleanup or Abatement	1	A score of 1 is appropriate because the Discharger used vacuum trucks to clean up less than 50 percent of the discharge. (Enforcement Policy, p. 13.)
Deviation from Requirement	Major	The discharge was a major deviation from requirement because it was not authorized by any State or federal permit. The Clean Water Act and Water Code require dischargers to apply for and obtain permits prior to discharge. These requirements were rendered ineffective in their essential functions. (Enforcement Policy, p. 14.)
Per-Day Factor for Discharge Violations	0.8	Enforcement Policy Table 2 contains per-day factors based on the Potential for Harm score and the Deviation from Requirement. (Enforcement Policy, p. 15.) A Potential for Harm score of 9 and a major Deviation from Requirement results in a per-day factor of 0.8.
<b>Initial Liability</b>	<b>\$523,702</b>	The maximum allowable per-gallon liability is \$10 per gallon. Because this was a high-volume discharge, the initial liability calculation uses \$2 per gallon, which is allowable under the Enforcement Policy (p. 14) for discharges between 100,000 and two million gallons. The initial liability, calculated using the per-gallon factor, \$2 per gallon, and the discharge volume minus 1,000 gallons, is as follows:  Initial Liability: \$523,702 = \$2/gal x (328,314 gallons – 1,000 gallons) x 0.8
<b>Adjustments for Discharger Conduct</b>		
Culpability	1.2	A score of 1.2 (above neutral) is appropriate because a reasonable and prudent discharger would have prevented the spill from reaching surface waters. The spilled wastewater flowed down a slope during dry weather, pooled in a parking lot, entered a drain to another parking lot, and then entered a stormwater drain from which it discharged to the water retention area. In its Spill Prevention and Countermeasures Control Plan, the Discharger lists the area as uncontained, meaning it knew the area would not be contained during a spill and yet did not have a spill control plan.
Cleanup and Cooperation	1.0	A score of 1.0 (neutral) is appropriate because the Discharger cleaned up some of the spill on the day of the discharge.
History of Violations	1.0	A score of 1.0 is appropriate because the Discharger does not have a history of enforcement against unauthorized discharges since acquiring the facility in 2020.
<b>Total Base Liability</b>	<b>\$628,443</b>	The initial liability is multiplied by each factor related to the Discharger's conduct to determine the Total Base Liability as follows:  \$628,443 = \$523,702 x 1.2 (culpability) x 1.0 (history of violations) x 1.0 (cleanup and cooperation)
Ability to Pay and Continue in Business	No adjustment	The Enforcement Policy provides that if there is sufficient financial information to assess the violator's ability to pay the total base liability or to assess the effect of the total base liability on the violator's ability to continue in business, then the liability may be adjusted downward if warranted. PBF Energy Inc., the Discharger's parent corporation, is a large energy business with multiple refineries throughout the United States. It did not raise the issue of the ability to pay during negotiations.

Penalty Factor	Score	Discussion
		Therefore, the Prosecution Team concludes that the Discharger can pay the proposed liability without undue financial hardship.
Economic Benefit	\$11,000	The Enforcement Policy requires recovery of any economic benefit plus 10 percent derived from failure to implement controls that result in a violation. Because the discharge flowed through two storm drains before discharge, the discharge could have been avoided by covering the two storm drain inlets. Assuming a minimum cost of about \$500 each, the economic benefit would be about \$1,000. Other costs to stop the inflow into the storm drain system (e.g., cover, containment, or plug) would be less than \$10,000 total. Adding 10 percent would result in \$11,000.
<b>Other Factors as Justice May Require</b>		
Staff Costs	none	The Prosecution Team chose not to pursue staff costs.
		Water Code sections 13385(c)(1) and (2) allow up to \$10,000 for each day in which the violation occurs.
		The Enforcement Policy and Water Code section 13385(h) and (i) require a \$3,000 mandatory minimum penalty for all serious violations and any non-serious violations that occur in a 180-day span, not counting the first three non-serious violations.  The Enforcement Policy also states that the final liability must be at least 10 percent higher than the economic benefit. (Enforcement Policy, p. 21.) The economic benefit derived from the alleged violations was negligible.
<b>Final Liability</b>	<b>\$628,000 (rounded)</b>	The final liability amount is the total base liability after adjusting for ability to pay, economic benefit, other factors, and maximum and minimum liabilities.

### **Alleged Failure to Comply with 13383 Order Requiring Submittal of Information on Climate Change Adaptation**

On January 8, 2021 the Regional Water Board Executive Officer issued the Discharger an order issued pursuant to Water Code section 13385 requiring submittal of information on climate change adaptation by February 1, 2022. The required report was to contain a vulnerability assessment on sea level rise, groundwater rise, changing climate, and power outages, with associated adaptation strategies. On January 25,

2022, the Discharger requested an extension on the deadline until June 1, 2022, which the Executive Officer granted on January 27, 2022.

The Discharger failed to meet this extended deadline and failed to request any additional extension of time prior to the June 1, 2022 deadline. On August 5, 2022, the Discharger submitted a preliminary report stating it would finish its groundwater evaluation by October 31, 2022, and submit its final report by December 31, 2022. On November 1, 2022, Regional Water Board staff contacted the Discharger to check on its progress toward its groundwater evaluation. The Discharger assured Regional Water Board staff that it would update its report by December 31, 2022. However, Regional Water Board staff did not receive a report or communication from the Discharger regarding the climate change report by December 31, 2022. On September 5, 2023, Regional Water Board staff requested the final report and was told that the Discharger would look for it. On September 18, 2023, Regional Water Board staff contacted the Discharger again about the final report, and the Discharger failed to respond. Under threat of enforcement, the Discharger submitted its completed report on October 10, 2023, 496 days late. Upon review of its files, the Discharger determined that a draft report had been prepared by a third-party contractor and provided to refinery personnel, but submittal of the report to the Regional Water Board was overlooked due to personnel changes that occurred in the same timeframe.

The Enforcement Policy (p. 15) states the Water Boards shall calculate initial liability for non-discharge violations considering the potential for harm and the extent of deviation from applicable requirements. The Discharger is subject to administrative civil liability for the alleged failure to comply with the 13383 Order. The factors considered in determining the liability for the violations are described below:

Penalty Factor	Score	Discussion
Potential for Harm	Moderate	<p>A score of moderate is appropriate because the “The characteristics of the violation have substantially impaired the Water Boards’ ability to perform their statutory and regulatory functions, present a substantial threat to beneficial uses, and/or the circumstances of the violation indicate a substantial potential for harm. Most non-discharge violations should be considered to present a moderate potential for harm.” (Enforcement Policy, p. 16.)</p> <p>The Regional Water Board was unable to perform its regulatory functions, such as analyzing the need to impose climate-change-related groundwater regulations on the Discharger, without the submittal of the groundwater evaluation required by the 13383 Order.</p>
Deviation from Requirement	Moderate	<p>A score of moderate is appropriate because, “The intended effectiveness of the requirement was partially compromised (e.g., the requirement was not met, and the effectiveness of the requirement was only partially achieved).” (Enforcement Policy, p. 16.)</p> <p>The Enforcement Policy further states, “If a facility has prepared a required plan, or submitted the required monitoring report, but significant elements are omitted or materially deficient, the deviation would be moderate.” Since a significant element (i.e., the groundwater</p>

Penalty Factor	Score	Discussion
		rise evaluation) was omitted from the submittal, a score of moderate is warranted.
Per-Day Factor	0.35	Table 3 in the Enforcement Policy allows a per-day factor ranging from 0.3 to 0.4 for moderate potential for harm and moderate deviation from requirement. The Prosecution Team chose the middle of that range.
<b>Initial Liability</b>	<b>\$175,000</b>	The maximum allowable per-day liability is \$10,000 per day of non-compliance. Because the violation did not cause daily detrimental impacts and resulted in no economic benefit, the number of days is calculated using the method suggested in the Enforcement Policy (p. 18): "the liability shall not be less than an amount that is calculated based on an assessment of the initial Total Base Liability Amount for the first 30 days of the violation, plus an assessment for each 5-day period of violation, until the 60th day, plus an assessment for each 30 days of violation thereafter." Therefore, the number of days calculated using this method for 496 days of violation counts days 1-30, 35, 40, 45, 50, 55, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330, 360, 390, 420, 450, and 480, which corresponds to 50 days. The initial liability calculated on a per-day basis, using the per-day factor and \$10,000 per day, is as follows: Initial Liability: $\$175,000 = \$10,000/\text{day} \times 50 \text{ days} \times 0.35$
Culpability	1.3	A score of 1.3 (above neutral) is appropriate because a reasonable and prudent discharger would have submitted the report on time or notified the Regional Water Board of any delay. The Discharger continually failed to deliver the final report after an extension of the original deadline and multiple reminders.
Cleanup and Cooperation	1.1	A score of 1.1 (above neutral) is appropriate because the Discharger responded in a timely manner to most requests but failed to follow up to several direct requests.
History of Violations	1.1	A score of 1.1 is appropriate because the Discharger has a history of violations, as demonstrated by the following enforcement orders: <ul style="list-style-type: none"> <li>• Order R2-2021-1007: \$126,000 penalty for March 2020 effluent limit violations.</li> </ul>
<b>Total Base Liability</b>	<b>\$275,275</b>	The initial liability is multiplied by each factor related to the Discharger's conduct to determine the Total Base Liability as follows: $\$275,275 = \$175,000 \times 1.3 \text{ (culpability)} \times 1.1 \text{ (history of violations)} \times 1.1 \text{ (cleanup and cooperation)}$
Ability to Pay and Continue in Business	No adjustment	The Enforcement Policy provides that if there is sufficient financial information to assess the violator's ability to pay the total base liability or to assess the effect of the total base liability on the violator's ability to continue in business, then the liability may be adjusted downward if warranted. PBF, the Discharger's parent corporation, is a large energy business with multiple refineries throughout the United States. It did not raise the issue of the ability to pay during negotiations. Therefore, the Prosecution Team concludes that the Discharger can pay the proposed liability without undue financial hardship.
Economic Benefit	\$6,325	The Enforcement Policy requires recovery of any economic benefit plus 10 percent derived from failure to implement controls that result in a

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 Exhibit A - Administrative Civil Liability Factors

Penalty Factor	Score	Discussion
		violation. The report was completed, but delayed; therefore, the economic benefit was the value the Discharger realized by delaying the expenditure. Assuming the cost to produce the report was roughly \$150,000, adjusting for 5.75 percent inflation over the 496 days period of delay from June 2022 to October 2023 results in an economic benefit of roughly \$5,750. Adding 10 percent results in \$6,325.
<b>Other Factors as Justice May Require</b>		
Staff Costs	none	The Prosecution Team chose not to pursue staff costs.
		Water Code sections 13385(c)(1) allows up to \$10,000 for each day in which the violation occurs.
		<p>The Enforcement Policy and Water Code section 13385(h) and (i) require a \$3,000 mandatory minimum penalty for all serious violations and any non-serious violations that occur in a 180-day span, not counting the first three non-serious violations</p> <p>The Enforcement Policy also states that the final liability must be at least 10 percent higher than the economic benefit. (Enforcement Policy, p. 21.) The economic benefit derived from the alleged violations was negligible.</p>
<b>Final Liability</b>	<b>\$275,000 (rounded)</b>	The final liability amount is the total base liability after adjusting for ability to pay, economic benefit, other factors, and maximum and minimum liabilities.



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**ATTACHMENT B**

**Supplemental Environmental Project:  
Peyton Slough Marshes Water Quality Improvements and Management**

**Supplemental Environmental Project:  
Peyton Slough Marshes Water Quality Improvements and Management**

Basic Information

**1. *Project Name:***

Peyton Slough Marshes - Water Quality Improvements and Management SEP  
(Peyton Slough SEP)

**2. *Peyton Slough SEP Purpose and Location:***

The SEP will improve water quality and habitat in the Peyton Slough and its associated marshes (mid-marsh, McNabney Marsh) by automating tide gate operation to improve exchange between Peyton Slough and Carquinez Strait. Currently, a levee and tide gate on Peyton Slough separates fully tidal marshes in the north (downstream) from muted tidal marshes in the south (upstream) (Figure 1). Tide gate automation will improve water quality in the muted tidal marshes south of the tide gate. The tide gate is currently opened manually and operated inconsistently. Automation will optimize operation, so the tide gate is opened and closed when tides change, and operation does not rely on the availability of a person to operate it manually.

The SEP will assess how significantly tide gate automation improves water flow and quality in the muted tidal marshes by measuring tidal exchange and water quality parameters. It will also evaluate the potential for other actions that can further enhance water quality and habitat. A bathymetric survey will determine whether sediment is accumulating in Peyton Slough and affecting drainage. Subsequent sediment sampling within the channel will help inform whether sediment could be added or removed to further improve water circulation and promote marsh vegetation.

**3. *Peyton Slough SEP Amount:***

\$1,046,000

**4. *Peyton Slough SEP Developed By:***

Landowners adjacent to the McNabney Marsh include the East Bay Regional Park District, EcoServices, Mt. View Sanitary District, and TransMontaigne. Additional parties interested in the Peyton Slough marsh complex include the Mount Diablo Audubon Society and the Contra Costa Resource Conservation District (District). Together, the landowners and additional parties (collectively referred to as the Managing Partners) have been working collaboratively for more than 30 years to identify ways to manage McNabney Marsh and enhance water quality and habitat

within the Peyton Slough Marshes. The Managing Partners developed this SEP to fit within the framework of those discussions.

**5. *Peyton Slough SEP to be Implemented By:***

The Contra Costa Resource Conservation District (District)

**6. *Contact:***

Heidi Petty, Watersheds Program Manager: [hpetty@ccrcd.org](mailto:hpetty@ccrcd.org)

**7. *Peyton Slough SEP Description***

The SEP will improve water circulation and enhance water quality in the Peyton Slough marshes. The SEP will be implemented in two phases: Phase 1 will assess baseline water quality and automate the Peyton Slough tide gate, and Phase 2 will assess improvements in tidal exchange and water quality, evaluate the condition of sediment in the mid-marsh and McNabney Marsh, and determine how sediment depths (bathymetry) could be changed to further enhance water circulation and marsh habitat. The San Francisco Bay Regional Water Quality Control Board (Regional Water Board) and Managing Partners will be updated on SEP progress through quarterly reporting for the duration of the SEP.

**A. Phase 1 – Baseline Water Quality and Tide Gate Automation**

The first phase of the SEP will start with a 4-month mobilization period and end with a *Phase I Completion Report*. During the mobilization period, the District will finalize work contracts and obtain equipment and materials for the SEP. During implementation of Phase 1, data will be collected to determine baseline water quality and tide data (water level) before the automation of the Peyton Slough tide gate. The Peyton Slough tide gate will be automated at the end of Phase 1.

To determine baseline water quality and tidal exchange, sondes and tide gauges will be installed by the District throughout the Peyton Slough marsh complex, with at least one sonde and tidal gauge in the following locations.

- Peyton Slough north of the tide gate (Peyton Slough)
- Peyton Slough south of the tide gate but before the Union Pacific Railway levee (mid-marsh)
- McNabney Marsh

These three locations are the minimum needed for sufficient monitoring. A fourth sonde and tidal gauge will be located in southeast McNabney Marsh for additional monitoring.

The sondes will measure multiple water quality parameters, including salinity, pH, and dissolved oxygen (DO). The tide gauges will measure water elevations in Peyton Slough from Suisun Bay/Carquinez Strait through the mid-marsh and into McNabney Marsh. Tide data will be referenced to a defined tidal datum (e.g. North American Vertical Datum of 1988, NAVD 88). At least four months of tide and water quality data will be collected before automation of the tide gate. Tide data will include perigean and neap cycles.

To automate the tide gate, a remote operation system will be installed by the District at the location of the existing tide gate in the Peyton Slough (Figure 1). The remote operation system will open and shut the tide gates automatically based on real-time water-level data and will include alerts to notify landowners if triggers are exceeded.

**B. Phase 2 – Tide Gate Evaluation and Sediment Assessment**

The extent to which tide gate operations improve water circulation and quality will be evaluated through continued monitoring and collection of water quality and tide data. Data will be collected for six months by the District so the new conditions, with the automated tide gate, have time to equilibrate. After this six--month period, sediment within Peyton Slough, the mid-marsh, and McNabney Marsh will be assessed by the District.

A high-resolution bathymetric survey will be conducted by the District to determine Peyton Slough depths from Carquinez Strait in the north to McNabney Marsh in the south (along approximately 1.5 miles of the channel; Figure 1). The bathymetry survey will include survey data collection, data processing and reduction, and surface creation (digital elevation model). Bathymetry data will be referenced to the same tidal datum as the tide gauges and used to evaluate water circulation through Peyton Slough, to determine whether dredging or fill could further enhance water quality, and to identify whether there is excess sediment in Peyton Slough that could be used for expanding marsh habitat elsewhere.

Sediment accumulated within Peyton Slough resulting in reduced water circulation and drainage can be removed through dredging. The bathymetry survey will be used to identify Peyton Slough locations (from Carquinez Strait to McNabney Marsh) where dredging can be used to improve water circulation. Sediment cores to a four-foot depth will be collected at eight locations within Peyton Slough determined from the results of the bathymetric survey. Sampling of accumulated sediment will be used to evaluate dredged material quality and the potential for sediment reuse onsite to expand marsh habitat. The first sample will be collected by the District at the sediment-water interface and subsequent sediment samples will be spaced at approximately one-foot depth intervals to a final depth in the range of 3.5 to 4 feet, or refusal if encountered before the final depth.

All sediment chemical and conventional analyses will be conducted by the District in accordance with U.S. EPA methods. Targeted method reporting levels (MRLs) for analyses of bulk sediment are listed in the following table.

Analyte	Method	Target MRL
<b>Metals</b>		
Arsenic	EPA 6020	2 mg/kg
Cadmium	EPA 6020B Mod	0.3 mg/kg
Chromium	EPA 6020	5 mg/kg
Cooper	EPA 6020	5 mg/kg
Lead	EPA 6020	5 mg/kg
Mercury	EPA 7471A	0.02 mg/kg
Nickel	EPA 6020	5 mg/kg
Selenium	EPA 6020B Mod	0.1 mg/kg
Silver	EPA 6020B Mod	0.2 mg/kg
Zinc	EPA 6020	1 mg/kg
<b>Pesticides</b>		
Aldrin	EPA 8081B	2 µg/kg
a-BHC	EPA 8081B	2 µg/kg
b-BHC	EPA 8081B	2 µg/kg
g-BHC (Lindane)	EPA 8081B	2 µg/kg
d-BHC	EPA 8081B	2 µg/kg
Chlordane	EPA 8081B	20 µg/kg
24'-DDD	EPA 8081B	2 µg/kg
24'-DDE	EPA 8081B	2 µg/kg
24'-DDT	EPA 8081B	2 µg/kg
44'-DDD	EPA 8081B	2 µg/kg
44'-DDE	EPA 8081B	2 µg/kg
44'-DDT	EPA 8081B	2 µg/kg
Total DDT	EPA 8081B	2 µg/kg
Dieldrin	EPA 8081B	2 µg/kg
Endosulfan I	EPA 8081B	2 µg/kg
Endosulfan II	EPA 8081B	2 µg/kg
Endosulfan sulfate	EPA 8081B	2 µg/kg
Endrin	EPA 8081B	2 µg/kg
Endrin aldehyde	EPA 8081B	2 µg/kg
Heptachlor	EPA 8081B	2 µg/kg
Heptachlor	EPA 8081B	2 µg/kg
Toxaphene	EPA 8081B	20 µg/kg
<b>Butyltins</b>		
Mono-butyltin	Krone 1989	10 µg/kg

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Analyte	Method	Target MRL
Di-butyltin	Krone 1989	10 µg/kg
Tri-butyltin	Krone 1989	10 µg/kg
Tetra-butyltin	Krone 1989	10 µg/kg
<b>Polycyclic Aromatic Hydrocarbons</b>		
Acenaphthene	EPA 8270C	20 µg/kg
Acenaphthylene	EPA 8270C	20 µg/kg
Anthracene	EPA 8270C	20 µg/kg
Benz(a)anthracene	EPA 8270C	20 µg/kg
Benzo(a)pyrene	EPA 8270C	20 µg/kg
Benzo(e)pyrene	EPA 8270C	20 µg/kg
Benzo(b)fluoranthene	EPA 8270C	20 µg/kg
Benzo(g,h,i)perylene	EPA 8270C	20 µg/kg
Benzo(k)fluoranthene	EPA 8270C	20 µg/kg
Biphenyl	EPA 8270C	20 µg/kg
Chrysene	EPA 8270C	20 µg/kg
Dibenz(a,h)anthracene	EPA 8270C	20 µg/kg
Dibenzothiophene	EPA 8270C	20 µg/kg
Dimethylnaphthalene, 2, 6-	EPA 8270C	20 µg/kg
Fluoranthene	EPA 8270C	20 µg/kg
Fluorene	EPA 8270C	20 µg/kg
Indeno(1,2,3-cd)pyrene	EPA 8270C	20 µg/kg
Methylnaphthalene, 1-	EPA 8270C	20 µg/kg
Methylnaphthalene, 2-	EPA 8270C	20 µg/kg
Methylphenanthrene, 1-	EPA 8270C	20 µg/kg
Naphthalene	EPA 8270C	20 µg/kg
Perylene	EPA 8270C	20 µg/kg
Phenanthrene	EPA 8270C	20 µg/kg
Pyrene	EPA 8270C	20 µg/kg
Trimethylnaphthalene, 2,3,5-	EPA 8270C	20 µg/kg
<b>Polychlorinated biphenyls (PCBs)</b>		
PCB-8	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-18	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-28	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-31	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-33	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-44	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-49	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-52	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-56	EPA 8082 ECD or EPA 8270C	0.5 µg/kg

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<b>Analyte</b>	<b>Method</b>	<b>Target MRL</b>
PCB-60	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-66	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-70	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-74	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-87	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-95	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-97	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-99	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-101	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-105	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-110	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-118	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-128	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-132	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-138	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-141	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-149	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-151	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-153	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-156	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-158	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-170	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-174	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-177	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-180	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-183	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-187	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-194	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-195	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-201	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
PCB-203	EPA 8082 ECD or EPA 8270C	0.5 µg/kg
<b>Dioxins/Furans</b>	EPA 8290	1 ng/kg
<b>Grain Size</b>	ASTM D4464(M)	±0.1%
<b>Total Solids</b>	SM 2540B	±0.1%
<b>Total Organic Carbon</b>	EPA 9060A	±0.1%
<b>Tissue Lipids (wet weight)</b>	NOAA 1993	0.01%

### C. Monitoring and Reporting

After completion of Phase 2, the SEP will include two years of monitoring and reporting on tide gate operations. Monitoring will be done by the District to confirm tide gate function and to continue evaluating water quality parameters and tide elevations with the multi-parameter sondes and tidal gauges. The tide gate and monitoring equipment will be inspected by the District on a quarterly basis, at a minimum, for the duration of the two-year monitoring period and maintenance will be performed as needed.

Reports will include quarterly progress and status reports and the three milestone reports described below. Quarterly reports may be included as part of the milestone reports when the timing for these reports coincide. All reports will be prepared by the District and submitted electronically to Martinez Refining Company LLC (MRC), the Regional Water Board and the Managing Partners.

Within 90 days of completing tide gate construction, a *Phase 1 Completion Report* will be submitted by the District that includes the following:

- Figures showing the SEP location, including the tide gate, sondes, and tide gauges;
- Description of field activities;
- Field logs;
- Baseline water quality and tide data;
- Quality assurance/quality control procedures; and
- Copies of accounting records of expenditures.

Within 90 days of completing the sediment assessment, a *Phase 2 Completion Report* will be submitted by the District that includes the following:

- Procedures for the bathymetry survey;
- The bathymetric maps produced from the bathymetric survey;
- Location and justification of sediment sample locations and sediment core depths;
- Figures showing the sediment sample locations;
- Procedures for sediment sampling and quality assurance/quality control protocols;
- Description of field activities;
- Field logs of the bathymetry survey and sampling event;
- Copies of all chain of custody documents for samples and laboratory quality assurance data;



- Monitoring results;
- Results of sediment analyses, including summary tables and comparison to applicable ecological screening levels;
- Evaluation of results; and
- Conclusions and recommendations.

Upon completing the monitoring period for the SEP, a *SEP Completion Report* will be submitted by the District that includes the following:

- Figures showing the SEP location, including the tide gate and multiparameter sondes and tide gauges;
- Description of SEP activities, including monitoring;
- Monitoring results;
- Evaluation of SEP performance measures; and
- Copies of accounting records of expenditures.

The Regional Water Board must approve the *SEP Completion Report* for the SEP to be deemed complete.

#### D. Long-term Operation and Maintenance

Following SEP completion, the Management Partners will provide continued operation and maintenance of the tide gate as part of their existing marsh management responsibilities. Ongoing tide gate maintenance will be a minor extension of existing marsh management activities.

### 8. ***Peyton Slough SEP Policy Compliance***

This SEP fits within two categories of acceptable SEPs in the State Water Board SEP Policy (Policy).

#### A. Environmental Restoration and Protection Category

Phase 1 of the SEP will have a direct benefit on surface water quality and will enhance an ecosystem. By changing an inconsistently operated, manual tide gate to a remotely operated, automatic tide gate, a hydraulic bottleneck will be minimized. Water exchange between Carquinez Strait and the muted tidal marshes south of the tide gate will improve by maximizing tidal circulation through the tide gate. Increased tidal circulation will improve water exchange and water quality by increasing DO levels and stabilizing pH and temperature, which will enhance the health of marsh vegetation and habitat and mitigate marsh odors and algal blooms. Increased tidal exchange may also improve drainage from McNabney Marsh and reduce hypoxic conditions.

## B. Assessments and Audits Category

Phase 2 of the SEP includes an assessment of sediment quality (an environmental quality assessment and study). Conditions in Peyton Slough will be assessed through a bathymetric survey and sediment sampling. The bathymetric survey will identify locations of sediment buildup and evaluate where dredging could further improve water flow and tidal exchange within Peyton Slough, thus improving wetland vegetation health in the mid-marsh and McNabney Marsh. Sampling of accumulated sediment in Peyton Slough will determine potential reuse for that material if the channel is dredged to further improve water circulation and drainage. Uncontaminated sediments can be used onsite to enhance habitat. The removal of contaminated sediments may have additional water quality benefits.

The SEP does not pose a conflict of interest for the settling parties. The Managing Partners developed the SEP to enhance the Peyton Slough Marshes. The SEP is not required by, nor operated under, the auspices of, or any obligations of, MRC, and does not directly benefit, in a fiscal manner, the Regional Water Board's functions, its members, or its staff.

The SEP has a nexus to the location of the alleged violations. MRC's Martinez Refinery is located within the same watershed and less than a mile from McNabney Marsh.

## 9. *Peyton Slough SEP Schedule and Budget*

The SEP will be implemented in two phases by the District. The following table summarizes the implementation schedule and budget for these phases of work, along with monitoring and reporting. Key SEP milestones are the Phase 1 Completion Report, the Phase 2 Completion Report, and the SEP Completion Report.

<b>Task</b>	<b>Cost</b>	<b>Completion Date</b>
Consultant, Contractor, and Vendor Bid and Selection	\$15,000	December 30, 2024
Sonde/tide Gauge Equipment	\$55,000	January 30, 2024
Sonde and Tide Gauge Installation	\$18,000	February 31, 2025
Sonde and Tide Gauge Baseline Monitoring and Reporting	\$26,000	June 31, 2025
2025 Sonde and Tide Gauge Servicing and Maintenance	\$34,000	Throughout 2025
Tide Gate Equipment and Installation	\$175,000	September 31, 2025
Phase 1 Completion Report	\$15,000	<b>December 30, 2025</b>

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<b>Task</b>	<b>Cost</b>	<b>Completion Date</b>
Bathymetry Survey	\$48,000	May 30, 2026
Sediment Sampling, Including Sampling Plan, Collection, and Laboratory Analysis	\$75,000	July 30, 2026
2026 Monitoring	\$26,000	November 1, 2026
2026 Sonde and Tide Gauge Servicing and Maintenance	\$34,000	Throughout 2026
Phase 2 Completion Report	\$20,000	<b>October 30, 2026</b>
2027 Monitoring	\$26,000	November 1, 2026
2027 Sonde and Tide Gauge Servicing and Maintenance	\$34,000	Throughout 2027
2028 Monitoring	\$26,000	November 1, 2028
2028 Sonde and Tide Gauge Servicing and Maintenance	\$34,000	Throughout 2028
Prepare SEP Completion Report	\$25,000	December 31, 2028
SEP Completion Report and Acceptance	--	<b>December 31, 2028</b>
Quarterly Reports	\$120,000	January 1, April 1, July 1, and October 1 of each year through completion
SUBTOTAL	\$806,000	
SEP Management (15% of Total SEP Cost)	\$120,000	
Contingency + Inflation (15% of Total SEP Costs)	\$120,000	
<b>Total Cost</b>	\$1,046,000	

The SEP Completion Date is the due date of the final report unless the Regional Water Board Executive Officer approves an extension. If an extension is granted, it shall also apply to the reports to the Regional Water Board. If an extension is necessary, the District will submit a written request, copying MRC, for such extension to the Executive Officer and provide the justification for the delay as required by the Stipulated Order paragraph 17.

The District will provide an accounting of costs and expenses for the SEP, copying MRC, on a quarterly basis via reports submitted to the Regional Water Board. If funds allocated for the SEP are not completely spent upon successful completion of the SEP, the District will turn over remaining funds to the State Cleanup and Abatement Account.

## 10. ***Peyton Slough SEP Performance Measures***

The SEP shall achieve the following performance measures and/or indicators to be deemed completed:

### A. SEP Implementation

The District will submit progress status reports on a quarterly basis until the project is complete. Implementation will be documented in three milestone reports: the *Phase 1 Completion Report*; the *Phase 2 Completion Report*; and the *SEP Completion Report*. Reports will be submitted to the Regional Water Board, MRC, and the Managing Partners.

### B. Tide Gate Function

Operation of the automated tide gate will be monitored by the District to confirm it is functioning as intended. The tide gate will be checked weekly during the first month of operation and at least quarterly thereafter for the duration of the project. Operation and maintenance records will be kept by the District to document the physical operation of the tide gate, including whether it is performing consistently with remote sensing/software and that nothing is limiting or inhibiting its ability to function, (e.g. vegetation, trash, wood, or other debris blocking or interfering with opening or closing the gate).

### C. Water Quality and Habitat Improvement

The goal of the SEP is to improve water quality within the muted tidal marshes south of the tide gate on Peyton Slough. More consistent operation of the tide gate, which is a hydraulic constriction when not open, will improve the flow of saline waters from Carquinez Strait to the interior marshes, i.e. tidal exchange. The three objectives for the SEP are to (1) increase tidal exchange and water circulation in Peyton Slough and the muted tidal marshes south of the tide gate levee, (2) improve water quality by increasing tidal exchange, and (3) determine whether removing sediment would enhance water circulation and quality, and whether dredged sediment could be used onsite to enhance wetland habitat. The following will be used to evaluate SEP performance to meet these objectives.

#### *i. Performance Metrics for Improved Flow*

To evaluate improved water exchange from Carquinez Strait, through Peyton Slough, to the muted tidal marshes south of the tide gate, tide gate operation will be recorded, and tide gauges will be installed by the District to collect tide data. Performance metrics will be primarily based on tide gate operation and a comparison of baseline water level metrics to water levels post automation. Records of when the tide gate is opened and closed will be kept by the District prior to automation to establish baseline

conditions, and after automation to determine a percent increase. Tide gauges also will be installed by the District in Peyton Slough, the mid-marsh, and McNabney Marsh to measure flood and ebb tides and evaluate the amount and extent of water exchange. The amount of water reaching McNabney Marsh is expected to be limited due to the levee and Union Pacific Railroad terrace that separates the mid-marsh from McNabney Marsh and creates a hydraulic bottleneck.

Current operation of the tide gate is inconsistent and based on staff availability to manually open and close it. With automation of the tide gate, it will be opened and closed daily and in sync with tidal flows when staff would not typically be available to manually operate it (e.g., evenings, weekends, and holidays). This is expected to increase tidal exchanges by as much as 100 percent (e.g., when only one tidal cycle is captured from manually opening and closing the tide gate during daytime operations and the gate remains closed for the evening tidal cycle).

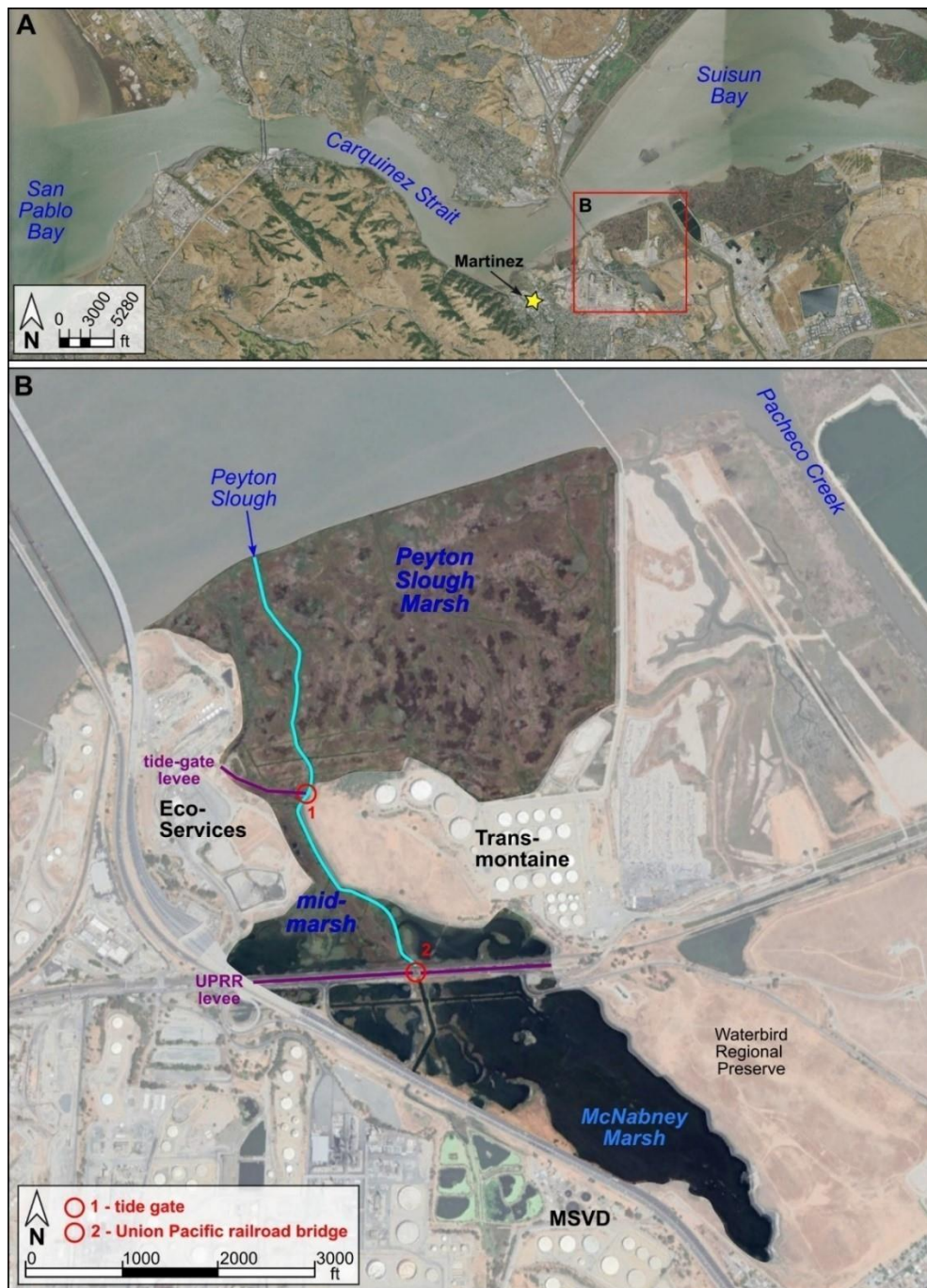
*ii. Performance Metrics for Improved Water Quality*

To evaluate improved water quality, sondes will be installed by the District to measure salinity, pH, and DO before tide-gate automation. Continued monitoring post automation will allow comparison of water quality metrics. Salinity levels will rise and fall with tidal exchanges and salinity is expected to reach levels similar to Carquinez Strait during flood tides. Salinity concentrations will be measured from Peyton Slough through the mid-marsh and in McNabney Marsh to evaluate the extent of tidal exchange from Carquinez Strait. To evaluate how much this exchange improves water quality, pH and DO will be measured. The goal is for these parameters to be within the naturally occurring range for tidal marshes and limit the potential for more extreme, hypoxic conditions to develop. The targets are pH between 6.0 to 9.0 and DO at or above 7.0 milligrams per liter.

*iii. Performance Metrics for Sediment Assessment*

The goal for the sediment assessment is to identify locations of sediment accumulation in Peyton Slough and determine potential use of that material should the sediment be dredged. The bathymetric survey conducted by the District will identify locations of sediment accumulation and be used to evaluate where dredging could further improve water flow and tidal exchange within Peyton Slough. Sediment sampling will be used to evaluate the quality and, therefore, potential use of the sediment. The SEP will be evaluated based on completion of sediment assessment work, as described. The assessment will produce products that include a bathymetric digital elevation model of Peyton Slough from Carquinez Strait

in the north to McNabney Marsh in the south, a sediment sample location map, and analytical results for eight sediment cores.



**Figure 1:** (A) The Peyton Slough Marshes are located on the southern shoreline of Suisun Bay, where its waters enter Carquinez Strait. (B) The Peyton Slough marshes consist of Peyton Slough Marsh, the mid-marsh (comprised of Rhodia Marsh, South Spread Area, and Plains Terminal Marsh), and McNabney Marsh. These three hydro-geographically distinct waters have formed as a result of local subsidence beneath McNabney Marsh and modern infrastructure. Two levees and their associated choke points have restricted water flow within the system. Peyton Slough has been significantly altered. Prior to alteration

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beginning in the late 19th century, the marshes were a continuous tidal marsh subject to full tidal action. Peyton Slough Marsh maintains the most “natural” connection with Suisun Bay and Carquinez Strait. (The Union Pacific railroad (UPRR) levee is also commonly referred to as Waterfront Road.)

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**ATTACHMENT C**

**Supplemental Environmental Project:  
Martinez Watershed Rangers Program**



## **Supplemental Environmental Project (SEP): Martinez Watershed Rangers Program**

### **1. Project Name**

Martinez Watershed Rangers Program (Martinez Watershed Rangers SEP)

### **2. Martinez Watershed Rangers SEP Amount**

\$153,600 based on the following:

- \$4,800 per class project
- 32 class projects over three school years

### **3. Martinez Watershed Rangers SEP Developed and Implemented By** Earth Island Institute/KIDS for the BAY

KIDS for the BAY is a project of Earth Island Institute (the fiscal sponsor), 501(c)(3) organization.

### **4. Contact**

Mandi Billinge, Executive Director, KIDS for the BAY  
[mandi@kidsforthebay.org](mailto:mandi@kidsforthebay.org) (510) 734-3835

### **5. Martinez Watershed Rangers SEP Description**

KIDS for the BAY coordinates and supervises watershed stewardship and trash cleanup projects with local schools on a class-by-class basis. Students perform projects with assistance from their teachers, and families, and the primary goal of each project is trash removal from nearby neighborhoods, parks, and waterways (e.g., creeks, lakes, bay and delta shorelines). In the process, KIDS for the BAY raises awareness of watershed health and social behavior that contributes to non-point source pollution.

The Martinez Watershed Rangers SEP prioritizes projects in disadvantaged and environmental justice communities as encouraged by the State Water Resources Control Board (State Water Board's) SEP Policy<sup>1</sup> and further discussed in sections 6 and 7. This project serves schools in Martinez and surrounding areas.

#### **a. SEP Components**

KIDS for the BAY oversees each class project, which consist of an orientation, a school neighborhood survey and trash cleanup, adoption of a watershed habitat in an urban open space area near the school location, and a creek or Bay trash cleanup, as described below.

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<sup>1</sup> State Water Resources Control Board Policy on Supplement Environmental SEPs, February 3, 2009

## 1) Orientation

KIDS for the BAY's orientation for each class prepares participants (e.g., students, teachers, parent chaperones) for project work and covers background education, planning field activities and logistics, and safety.

- **Background** - Participants learn about the San Francisco Bay-Delta watershed, including how school neighborhoods connect with water (storm drain system, local creeks, the Bay, and the Pacific Ocean) and how pollutants in stormwater enter and impact this system. Emphasis is placed on water as a precious resource, the benefits of healthy watershed ecosystems to people and wildlife, and citizen actions that protect and improve water quality in their communities, such as by practicing the Five Rs (Reduce, Reuse, Recycle, Rot, and Refuse) to reduce trash, waste, and pollution in the San Francisco Bay watershed.
- **Planning** – Participants prepare for field activities and discuss logistics. KIDS for the BAY Educators explain procedures for conducting a neighborhood survey and picking up trash (e.g., using tongs, separating waste from recyclable materials), record keeping (e.g., identifying locations of storm drains and trash hotspots, documenting the types and volume of trash removed), and disposal or recycling processes. KIDS for the BAY Educators provide guidelines for project logistics that are finalized in close coordination with the classroom teacher to include school logistics (parental consent forms, buddy or staying together plans, parent volunteers, etc.).
- **Safety** – Students receive training on safe field practices that includes staying in the public right-of-way (e.g., walking on sidewalks, not trespassing on residential property) and not handling certain types of wastes that may be encountered (e.g., chemical containers, hypodermic needles, sharp objects). Some sharp objects, such as broken glass, may be removed safely by an adult (KIDS for the BAY Educator, class teacher, or parent volunteer).

## 2) School Campus and Neighborhood Survey and Trash Cleanup

Students implement a school campus and neighborhood survey and trash cleanup under KIDS for the BAY direction and supervision. From a walking tour of the school campus and neighborhood, students will identify the number and location of storm drains and the location of any trash hotspots. Trash encountered along the way will be picked up, categorized, counted and recorded on the neighborhood survey sheets provided by KIDS for the BAY. Campus and neighborhood surveys and trash cleanups will take approximately one hour to complete. KIDS for the BAY will dispose of the

trash collected at an authorized disposal or recycling facility, such as the school waste management service or a local city waste management center.

KIDS for the BAY will coordinate school campus and neighborhood surveys and trash cleanup with local municipalities. The locations and contents of significant trash hotspots beyond the scope of the Watershed Rangers Program (e.g., large accumulations of trash, illegally dumped large items, trash containing unsafe materials such as hazardous waste, drug paraphernalia) will be reported to local agencies and city services to request cleanup. Students will calculate the total number of gallons of trash collected over the surveyed area and share results with the local Clean Water Program.

### 3) Watershed Habitat Trash Cleanup

KIDS for the BAY, students, and the classroom teacher will identify a watershed habitat for adoption by an urban open space area within walking distance of the school. This area may be a localized area where trash collects (e.g., at a local park, creek, lake, or section of Bay shoreline). If no urban open space area is available within the local watershed, a storm drain grate or collection of storm drains in the neighborhood may be selected. KIDS for the BAY will oversee and supervise the watershed-habitat trash cleanup. Each participating class will take a walking field trip to clean up trash at the watershed habitat location. Trash will be picked up, categorized, and counted, and students will calculate the total number of gallons of trash collected and share results with the local Clean Water Program. The same safety rules for trash cleanup beyond the scope of the Watershed Rangers Program apply here as set forth above.

KIDS for the BAY will coordinate other activities in conjunction with the trash cleanup to help students connect with their watershed habitat or to improve community outreach. For example, activities may include increasing connections with the habitat through a sound map, “meeting” the creek, “meeting” a tree, etc. Through these activities, students will observe, study, explore, and connect with the components of a natural watershed habitat. The “Five Rs Relay Race” activities will teach students about using the Five Rs to reduce trash and waste at the source.

### 4) Creek, Lake, Bay, or Delta Habitat Trash Cleanup

KIDS for the BAY will oversee and supervise a field trip for each participating class to visit a creek, lake, Bay, or delta habitat and clean up trash. Trash will be picked up, categorized, and counted, and students will calculate the total number of gallons of trash collected and share results with the local Clean Water Program. The same safety rules for trash

cleanup beyond the scope of the Watershed Rangers Program apply here as set forth above. The cleanup will take approximately one hour to complete. KIDS for the BAY will dispose of the trash collected at an authorized disposal or recycling facility, such as the school waste management service or a local city waste management center.

KIDS for the BAY will coordinate other activities during this trip to help students learn about and connect with aquatic habitats and ecosystems, (e.g., a, bay scavenger hunt, or short nature hike activity. Students will observe, study, explore, and connect with the components of a natural watershed habitat. Students will complete the Watershed Rangers Program by pledging to make behavior changes including not littering and practicing the Five Rs to reduce trash and waste in their watershed. Students will write their pledges on environmental pledge cards provided by KIDS for the BAY. They will then share their pledge cards with their classmates and families.

b. Reporting

A project completion report will be submitted by KIDS for the BAY toward the end of each school year. Once the project start date is determined with the participating school and class, quarterly progress reports will be submitted by KIDS for the BAY. Table 1 provides the timing and schedule of project activities and these reports.

Reports by KIDS for the BAY will document the trash cleanups and other activities described in the project components and record progress toward project completion. The completion reports will also cover expenditure justifications (invoices, hourly rates, time sheets, etc.) and project performance measures. Table 1 lists elements of the quarterly and completion reports. KIDS for the BAY will submit reports electronically on behalf of the discharger to the following contacts at the San Francisco Bay Regional Water Quality Control Board (Regional Water Board):

- Carina Cornejo  
San Francisco Bay Regional Water Quality Control Board  
[carina.cornejo@waterboards.ca.gov](mailto:carina.cornejo@waterboards.ca.gov)  
510-622-2302
- Brian Thompson  
San Francisco Bay Regional Water Quality Control Board  
[brian.thompson@waterboards.ca.gov](mailto:brian.thompson@waterboards.ca.gov)  
510-622-2422

## 6. SEP Category

Trash cleanup is consistent with the Regional Water Boards' mission to preserve, enhance, and restore the water quality and beneficial uses (BUs) of San Francisco Bay and its tributaries. Trash is an environmental pollutant regulated by U.S. EPA National Pollutant Discharge Elimination System (NPDES) permits under a municipal regional stormwater permit and statewide industrial and construction stormwater permits. The Watershed Rangers Program does not replace others' responsibilities for trash management or cleanup but, rather, is intended to provide third-party assistance in reducing the impact of a social issue.

The Martinez Watershed Rangers SEP is primarily a pollution reduction SEP; however, Martinez Watershed Rangers SEP components also include elements of assessment and audit, and environmental restoration and protection SEPs.

- **Pollution Reduction SEP** - Trash cleanup decreases the amount of waste and pollutants discharging to streams and the Bay.
- **Assessments and Audits SEP** - The identification and reporting of trash hotspots to municipalities through a neighborhood survey and the adoption of a local watershed habitat for monitoring and cleanup are a form of environmental quality assessment and study or monitoring program.
- **Environmental Restoration and Protection SEP** - Trash cleanup at a creek or Bay is nonpoint source program implementation that benefits surface water quality and ecosystems.

## 7. SEP Policy Support

A SEP must directly benefit or study groundwater or surface water quality or quantity and the BUs of the waters of the State. This project meets this criterion through pollution reduction and assessment that contributes to environmental restoration and protection (item 5). The SEP Policy encourages projects (like the Watershed Rangers Program) that serve disadvantaged and environmental justice communities. This program targets areas where trash is prevalent, cleanup resources are limited, and local communities may be less informed about or engaged with environmental protection and watershed stewardship. KIDS for the BAY has more than 30 years of experience serving disadvantaged and environmental-justice communities by partnering with low-income, urban elementary schools in low-income, environmental-justice communities, including in the following school districts: Oakland Unified, West Contra Costa Unified, San Leandro Unified, Hayward Unified, Pittsburg Unified, Martinez Unified, and Mount Diablo.

KIDS for the BAY programs address environmental health and justice issues that affect the communities they partner with, including urban creek and watershed health, pollution, trash and waste, and access to nature. A goal of KIDS for the BAY is equitable access to environmental education and stewardship opportunities for all children, including English Language Learners. Diversity, equity, and inclusion are key guiding principles of KIDS for the BAY programs. To better serve communities, KIDS for the BAY provides internal professional development for staff and strives to develop culturally literate, multicultural environmental leaders. KIDS for the BAY staff receive annual training in diversity, equity, and inclusion; environmental justice; culturally responsive class management; and supporting English language learners. The KIDS for the BAY website's list of staff alumni includes many women as well as 75 percent who identify as people of color. During its 30-year history, KIDS for the BAY has helped to develop a new generation of leaders in environmental education and stewardship.

#### **8. Above and Beyond Discharger's Obligations**

This SEP provides no direct benefit to the Martinez Refining Company LLC (MRC), which has no obligation to provide financial or other support for this project, will receive no direct or indirect benefit from this effort, and will not direct or exercise any control over the SEP.

#### **9. No Benefit to the Water Board Functions, Members, or Staff**

The Martinez Watershed Rangers SEP provides no direct fiscal benefit to the State Water Board or Regional Water Board's functions, its members, its staff, or any family members of staff.

#### **10. Nexus to the Nature or Location of Violations**

Trash is prevalent throughout the San Francisco Bay, and trash cleanup projects have a broad nexus to violations of stormwater permits and other types of violations or discharges that threaten to impair the water quality of San Francisco Bay. Trash cleanups will occur in a San Francisco Bay-Delta watershed and help protect San Francisco Bay water quality and BUs by reducing trash inflow.

#### **11. Martinez Watershed Rangers SEP Maintenance**

While the SEP will be completed by the end of the school year, KIDS for the BAY has a separate teacher-training program that provides additional opportunities to the participating classrooms outside this SEP. To provide ongoing support for teachers and continue advancing KIDS for the BAY's mission, KIDS for the BAY staff follow up with partner teachers the year after their participation in the Martinez Watershed Rangers SEP to review any lessons

learned and address the status of the watershed habitat. Staff will invite teachers to participate in a separate program (Blue Watershed Classrooms teacher follow-up support program) to further develop a watershed-friendly, zero-waste classroom and to continue trash cleanup projects in the school neighborhood and at the adopted watershed habitat.

## 12. California Environmental Quality Act (CEQA) Compliance

The Martinez Watershed Rangers SEP is an environmental stewardship, trash cleanup, and monitoring program for elementary school students and is not subject to CEQA (Public Resources Code section 21000 *et seq.*).

## 13. Martinez Watershed Rangers SEP Milestones, Schedule, and Budget

Table 1 lists the primary project milestones, deliverables, and schedule for KIDS for the BAY. Table 2 includes the projected cost associated with each milestone.

**Table 1: SEP Milestones and Deliverables**

Due Date	Task Descriptions	Deliverables
Year 1: January 30, 2025  Year 2: November 30, 2025  Year 3: November 30, 2026	<p><b>SEP planning:</b> Complete outreach to applicable school districts and engage individual classrooms (teachers). Meet with teachers to set project schedules, sign Letters of Agreement, and distribute informational materials.</p>	
Year 1: March 30, 2025  Year 2: February 28, 2026  Year 3: February 28, 2027	<p><b>Milestone 1:</b> Complete project orientations (item 5.a.1) and neighborhood survey and trash cleanup (item 5.a.2) components. Documentation will include a narrative description of activities with photographs. Photographs will include images of areas of trash before and after cleanup. Locations of trash cleanups and any trash hotspots will be identified on Google maps with the area that was surveyed and the trash cleanup that took place delineated. A table listing types and total number of gallons of trash collected will be provided. Trash disposal and recycling centers used will be identified. Reports to City representatives and trash hotspot cleanups requested and completed will be included.</p>	<p><b>Quarterly Report 1</b></p>

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Due Date	Task Descriptions	Deliverables
Year 1: April 30, 2025  Year 2: April 30, 2026  Year 3: April 30, 2027	<p><b>Milestone 2:</b> Complete the project watershed habitat component (item 5.a.3). Documentation will include a narrative description of activities in the adopted watershed habitat with photographs. Photographs will include images of areas of trash before and after cleanup. Locations of trash cleanups and any trash hotspots will be identified on Google maps with the area that was surveyed and the trash cleanup that took place delineated. A table listing types and total number of gallons of trash collected will be provided. Trash disposal and recycling centers used will be named. Reports to City representatives and trash hotspot cleanups requested and completed will be included.</p>	<b>Quarterly Report 2</b>
Year 1: July 30, 2025  Year 2: July 30, 2026  Year 3: July 30, 2027	<p><b>Milestone 3:</b> Complete the project creek, Bay, or delta habitat trash cleanup component (item 5.a.4). Documentation will include a narrative description of activities in the habitat with photographs. Photographs will include images of areas of trash before and after cleanup. Locations of trash cleanups and any trash hotspots will be identified on Google maps with the area that was surveyed and the trash cleanup that took place delineated. A table listing types and total number of gallons of trash collected will be provided. Trash disposal and recycling centers used will be named. Reports to City representatives and trash hotspot cleanups requested and completed will be included.</p>	<b>Quarterly Report 3</b>
Year 1: Sep 30, 2025  Year 2: Sep 30, 2026  Year 3: Aug. 30, 2027	<p><b>Completion Report:</b> Discuss project completion and how project performance measures were met. SEP components already reported will be summarized and referenced, and new or updated information about trash cleanups and other activities will be presented. Discussion will include information on compliance with the project schedule and budget, and/or challenges and reasons for deviations. Documentation will include a compilation of trash cleanup data for the entire project, including total gallons removed; Google map identification of all locations where trash cleanups occurred; identification of locations where city services were requested and, if known, completed; and justification of expenditures.</p>	<b>Completion Report</b>



**Table 2: SEP Budget by Milestone**

<b>Task Description</b>	<b>Position Title/Other Line Items</b>	<b>Hourly Rate</b>	<b>Hours</b>	<b>Costs</b>
<b>Milestone One &amp; SEP Planning</b>				
	Executive Director	\$71.00	92	\$6,532
	Program Manager/Environmental Educator	\$36.00	192	\$6,912
	Program Environmental Educators	\$31.00	912	\$28,272
	Communications Coordinator	\$33.00	85	\$28,272
	Earth Island 15% fiscal sponsor fees			\$6,678
<b>Subtotal: Milestone One</b>				<b>\$51,199</b>
<b>Milestone Two</b>				
	Executive Director	\$71.00	48	\$3,408
	Program Manager/Environmental Educator	\$36.00	68	\$2,448
	Program Environmental Educators	\$33.00	460	\$15,180
	Communications Coordinator	\$31.00	40	\$1,240
	Earth Island 15% fiscal sponsor fees			\$3,341
<b>Subtotal: Milestone Two</b>				<b>\$25,617</b>
<b>Milestone Three and Completion Report</b>				
	Executive Director	\$71.00	72	\$5,112
	Program Manager/Environmental Educator	\$36.00	122	\$4,392
	Program Environmental Educators	\$31.00	520	\$16,120
	Communications Coordinator	\$33.00	84	\$2,772
	Travel – Field Trip Buses			\$38,372
	Earth Island 15% fiscal sponsor fees			\$10,015
<b>Subtotal: Milestone Three</b>				<b>\$76,783</b>

Task Description	Position Title/Other Line Items	Hourly Rate	Hours	Costs
<b>TOTAL COSTS</b>				<b>\$153,600</b>

**Budget Narrative**

This SEP Budget is for 32 third-, fourth-, or fifth-grade classes of students, their teachers, and volunteer family members to complete the Watershed Rangers Program at a cost of \$4,800 per class. If funds allocated for the SEP are not completely spent upon successful completion of the SEP, KIDS for the BAY will turn over remaining funds to the State Cleanup and Abatement Account.

**14. Final Post-Martinez Watershed Rangers SEP Accounting of Expenditures**

KIDS for the BAY will track all costs and include financial data of the SEP with quarterly reports. KIDS for the BAY will provide the Regional Water Board and MRC with a final report that declares SEP completion, addresses how the expected performance measures for the project (see section 16) were met, and provides a final accounting of SEP expenditures. KIDS for the BAY will submit all quarterly and final reports to

- Carina Cornejo  
 San Francisco Bay Regional Water Quality Control Board  
 1515 Clay Street, Suite 1400  
 Oakland, CA
- Asa Marie Standfeldt  
 State Water Resources Control Board, Office of Enforcement  
 801 K Street, 23rd Floor  
 Sacramento, CA

**15. Extension if Necessary**

The SEP Completion Date is the due date of the final report unless the Executive Officer approves an extension. If an extension is granted, it shall apply also to the reports to the Regional Water Board. If an extension is necessary, KIDS for the BAY shall submit a written request, copying MRC, for such extension to the Regional Water Board’s Executive Officer and shall provide the justification for the delay as required by the Stipulated Order at paragraph 17.

**16. Martinez Watershed Rangers SEP Performance Measures**

The SEP must achieve all the following performance measures in order for it to be deemed complete:

- a) **Milestone 1:** Signed teacher contracts and schedules of activities submitted, at least five gallons<sup>2</sup> of trash collected for each school neighborhood trash cleanup per class, survey results submitted to city clean water program, and location of any trash hotspots identified and reported to city services for requested cleanup as applicable.
- b) **Milestone 2:** Watershed habitat adopted and at least five gallons of trash cleaned up from each adopted watershed habitat per class, survey results submitted to the city clean water program, and location of any trash hotspots identified and reported to city services for requested cleanup as applicable.
- c) **Milestone 3:** Creek or Bay field trip completed and at least five gallons of trash cleaned up from each creek or Bay habitat per class, survey results submitted to city clean water program, and location of any trash hotspots identified and reported to city services for requested cleanup as applicable.
- d) **Completion Reports:** All KIDS for the BAY deliverables submitted to the Regional Water Board and MRC by the deadlines set forth in Table 1. Report will include project completion description and how performance measures were met; total trash cleanup summary table for all locations, including total gallons removed; Google map identifying all locations; and summary of city services provided as applicable.

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<sup>2</sup> The number of gallons of trash collected for each cleanup will be around 5 - 20 gallons depending on conditions. The total number of gallons of trash collected for the three locations for each class will be from around 15 - 60 gallons per class, for a total of approximately 250 - 1,000 gallons of trash.

**ATTACHMENT D**

**Supplemental Environmental Project:  
Regional Monitoring Program for Water Quality in San Francisco Bay**

## Supplemental Environmental Project (SEP): Regional Monitoring Program for Water Quality in San Francisco Bay

### Basic Information

Project Name: San Francisco Bay RMP Studies 2024 (RMP SEPs)

Project Budget, Total: \$1,041,200

#### SFEI Contacts

- Technical: Amy Kleckner, [amyk@sfei.org](mailto:amyk@sfei.org)  
 Jay Davis, [jay@sfei.org](mailto:jay@sfei.org)
- Financial: Jennifer Trudeau, [jent@sfei.org](mailto:jent@sfei.org)

### RMP SEPs Description

These SEPs will fund four high-priority projects by the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) to provide information needed to support management of water quality in San Francisco Bay.

SEP	Budget	Summary
1) PCBs in San Leandro Bay	\$664,700	Comprehensive study of PCBs (polychlorinated biphenyls) in San Leandro Bay to develop San Francisco Bay PCBs model to inform review and revision of the San Francisco Bay TMDL.
2) Sediment Dynamics in a North Bay Fluvially Influenced Salt Marsh	\$121,500	Assessment of sediment fluxes in a mudflat–salt marsh environment to determine the relative importance of fluvial vs. Bay-derived sediment to long term rates of accretion in this and other restored marshes, and to inform future marsh restoration prioritization and methods.
3) Sediment Conceptual Models for San Pablo Bay and Suisun Bay	\$125,200	Compilation and assessment of information to document understanding of the dynamic processes (between marshes and mudflats, changes in the erodible sediment pool) in the bays and evaluation of local tributary sediment loads and the tributary-marsh-erodible sediment pool pathway. Results will inform sediment management associated with dredging and marsh resilience and adaptation to and protection from sea level rise.
4) Microplastics in San Francisco Bay Sport Fish	\$130,000	Assessment of microplastics in typically consumed Bay fish from throughout the Bay to determine the level of exposure to microplastics in the food web and human consumers.

## **RMP SEPs to be Implemented By**

The projects below will be performed by the San Francisco Estuary Institute (SFEI) as part of the RMP SEPs. Each of the projects is described below with key tasks, schedules, and deliverables.

### **Project 1. PCBs in San Leandro Bay**

This project will measure the flux of sediment and contaminants into and out of San Leandro Bay (SLB) during the wet season of 2024/25. These measurements will confirm the limited data indicating high loads from East Creek Channel and will obtain data for the other SLB tributaries, which have received even less attention. The project will use OPTICS (OPTically-based In-situ Characterization System; U.S. Patent No. 11079368), a tool that combines robust aquatic instrumentation and innovative data processing techniques to provide high-resolution measurements of surface water concentrations of contaminants. OPTICS uses in-situ optical and water quality sensors, periodic discrete surface water sample collection and analysis for calibration and validation, and a multi-parameter statistical prediction model to provide characterization of surface water contaminants. The OPTICS analysis will be coupled with standard hydrodynamic data collection (water column currents and discharge) to estimate contaminant fluxes into and through SLB. Additional concurrent sampling will include passive samplers and sediment traps to provide additional information on PCBs loading and bioavailability in SLB. The project will also estimate sediment erosion rates at the sediment-water interface using a high shear stress flume, SEDflume.

SLB is a high-priority area within San Francisco Bay for evaluation of PCBs fate and transport due to a high degree of impairment, management actions that are in progress and planned to reduce stormwater loads, and a preliminary conceptual model and simple fate model that suggests the PCBs impairment would likely be mitigated through reduction of those loads. The RMP has conducted a very limited amount of actual measurement of stormwater loads into SLB, but the small dataset obtained indicates that these inputs are still substantial despite management actions taken to date in the watershed.

The information generated by this project will be used to refine the SLB-focused PCBs fate and transport model the RMP is developing, allowing better characterization of model boundary conditions and data for calibration and validation of model results for sediment and contaminant transport. The empirical data and modeling will provide information that will support the upcoming revision of the PCBs TMDL. In addition, the project will demonstrate the use of methods that can be used in other parts of San Francisco Bay to understand sediment and contaminant transport at finer spatial scales along the Bay margins.

#### **Tasks**

1. Collect field data: deploy six moored OPTICS monitoring platforms; conduct velocity measurements along transects; conduct discrete surface water sampling for total suspended solids and PCBs; deploy and collect passive samplers and sediment traps; and collect and analyze six SEDFlume sediment cores to measure erodibility of bed sediment.
2. Conduct sediment and contaminant flux analysis: undertake data processing and quality assurance analysis, flow rate analysis, OPTICS analysis, PCBs analysis, and sediment and contaminant flux estimations.
3. Prepare draft and final technical reports: Document field collection methods, data analysis, uncertainty estimation, and sampling results; provide estimate sediment and contaminant flux into

and out of SLB; and describe applicability of results to inform review of the San Francisco Bay PCBs TMDL.

#### Schedule of Deliverables

1. Detailed workplan: April 2025
2. Draft technical report: September 2026
3. Final technical report: December 2026

### **Project 2. Sediment Dynamics in a North Bay Fluvially-Influenced Salt Marsh**

This project will assess sediment fluxes in a mudflat–salt marsh environment adjacent to the Petaluma River known as Gray’s Marsh, which was recently restored through an unintentional breach. The project will leverage work at the proposed site already funded by the RMP in 2024 to assess the decadal-scale physical response of marshes to restoration. By measuring sediment flux and accretion during the wet and dry seasons, the study will determine the relative importance of fluvial vs. Bay-derived sediment to long-term rates of accretion in this restored marsh. This work will also contribute to our understanding of how sediment transport and accumulation in marshes are influenced by site-specific attributes, such as fluvial influence, which will help inform future marsh restoration prioritization and methods.

Salt marshes provide essential protection against storm impacts to coastal communities but are severely vulnerable to sea-level rise and other hazards. Determining their level of resilience is crucial to predicting their future evolution. Syntheses of measurements made in salt marshes over the past 30 years have produced metrics that indicate marsh health or vulnerability. Most of these metrics have been derived in microtidal marshes not subject to direct river inputs and without management interventions. Although these metrics are hypothesized to be universal across salt marshes, they have not yet been rigorously tested in fluvially-influenced, restored marsh environments. Study of this topic is aligned with manager interest in the importance of local watersheds as a marsh sediment source. It also can inform accretion rates and fluxes in marshes, mudflats, and shoals in relation to waves and local sediment supply.

#### Tasks

1. Measure waves, currents, suspended-sediment concentration, and suspended-sediment flux within the river and in channels of the mudflat–marsh platform via two instrumentation deployments of two to three months each during wet and dry seasons.
2. Measure mudflat and marsh sediment deposition along three transects.
3. Collect topo-bathymetric elevation data to determine the tidal and seasonal physical and sedimentary dynamics of this system, which is both fluvially influenced and recently restored.
4. Test sediment-provenance approaches to determine the originating watershed of the sediment accumulating in the marsh.
5. Compile project results into a technical report.

#### Schedule of Deliverables

1. Detailed workplan incorporating input from RMP Sediment Workgroup: March 2025
2. Data release: salt-marsh and Petaluma River time-series data: September 2026

3. Data release: deposition and accretion: September 2026
4. Presentation to RMP Sediment Workgroup: May 2027
5. Report: June 2027

### **Project 3. Sediment Conceptual Models for San Pablo Bay and Suisun Bay**

This project will be coupled with ongoing sediment transport modeling through Destination Clean Bay, a US EPA-funded effort that focuses on developing tools to support multi-benefit water-quality improvements, including identification of high priority data gaps for regional quantitative model development. This project will focus on refining the conceptual understanding of two specific elements within the San Pablo Bay and Suisun Bay subembayments of San Francisco Bay: (1) compiling updated evaluations of local tributary sediment loads, and (2) developing a deeper understanding of the tributary-marsh-erodible sediment pool pathway. The results of the study will provide a framework for understanding sediment transport in all San Francisco Bay subembayments at a more refined and deeper scale.

The RMP recently completed a conceptual model of fine sediment (i.e., sediment silt-sized and smaller) for San Francisco Bay as a whole. The report offered a high-level understanding of how fine-grained sediment moves at different scales within the Bay. The report concluded with a set of key knowledge gaps and uncertainties. Among these was a recommendation to refine our conceptual models of the dynamic processes (e.g., between marshes and mudflats, changes in the erodible sediment pool) in individual subembayments.

#### **Tasks**

1. Conduct literature review and convene advisory team: gather information related to sediment dynamics in the subembayments; and convene an RMP Sediment Workgroup sub-group to guide the literature and data gathering efforts.
2. Conduct analyses to produce a refined understanding of sediment dynamics within the subembayments with a focus on expanding the conceptual understanding of two specific elements: local tributary sediment loading within the subembayment and the tributary-marsh-sediment pool pathway. Other analyses may be needed, such as assessing the size and state of the area where wave resuspension is likely to occur.
3. Compile project results into a technical report.

#### **Schedule of Deliverables**

1. Detailed workplan: March 2025
2. Progress presentation at annual RMP Sediment Workgroup meeting: May 2025
3. Draft report submitted to RMP Sediment Workgroup: April 2026
4. Presentation to RMP Sediment Workgroup: May 2026
5. Final report completed: August 2026

### **Project 4. Microplastics in San Francisco Bay Sport Fish**

In summer 2024, as part of RMP Status and Trends monitoring, sport fish will be collected and analyzed for a suite of contaminants. This project will leverage this sample collection effort and analyze striped bass and shiner surfperch to assess the level of exposure to microplastics in the Bay food web.



Evaluating levels of microplastics in Bay sport fish is important for understanding potential impacts to fish and for understanding whether humans may be exposed to microplastics through ingestion of sport fish. Some people eat the gastrointestinal tracts of fish, where microplastics are known to be present. In addition, it is possible for microplastics smaller than 150  $\mu\text{m}$  to translocate out of the gut to other tissues.

Striped bass and shiner surfperch are popular for human consumption and are important to analyze to assess potential human exposure routes to microplastics. Striped bass are the most popular sport fish for consumption in the Bay, and a species that is higher in the food chain and provides an integrated signal for regions of the Bay because of its wide foraging behavior and opportunistic consumption of lower trophic level fish. Shiner surfperch are an abundant and popular sport fish species that feeds on invertebrates in the benthic zone and exhibits high site fidelity, making them useful for assessing spatial differences in contaminants.

In total, up to 50 whole shiner surfperch will be collected from sites throughout the Bay. Additionally, up to 20 striped bass will be collected where the gut, liver, and muscle tissue from one side of the fish are preserved for analysis. Field blank samples will be collected as open cleaned-foil samples during sample dissection and stored with the fish samples after dissection. Microplastics will be analyzed in collected samples. Results will be compared to previous results for Bay prey fish and fish in other published studies.

#### Tasks

1. Analyze microplastics in fish tissues.
2. Compile project results into a technical report.

#### Schedule of Deliverables

1. Microplastics analysis results: January 2026
2. Report: March 2027

#### **Compliance with SEP Criteria**

The RMP SEPs comply with the following SEP criteria:

- It supports development and implementation of a monitoring program and/or study of surface water quality or quantity and/or the beneficial uses of the water.
- Its nexus to violations is that it is located within the same Water Board region in which violations occurred.

The RMP SEPs go above and beyond applicable obligations of dischargers because of the following:

- The SEPs study and associated products are above and beyond what is required in permits or orders issued by the Regional Water Board or what could be accomplished with dischargers' required monetary contributions to the RMP.

### **RMP SEPs Milestones and Performance Measures**

The SEPs scope and progress will be reviewed and tracked through the RMP's governance, which includes its Steering Committee, Technical Review Committee, PCB Workgroup, Sediment Workgroup, Microplastics Workgroup, and Sport Fish Strategy Team. Final products of all study elements will be completed by October 2027, including reports documenting results and findings.

### **RMP SEPs Budget and Reports to Regional Water Board**

Pursuant to the October 2015 Supplement to the Memorandum of Understanding (MOU) between SFEI and the Regional Water Board, SFEI is responsible for identifying in each annual work plan and annual budget for the RMP those studies or elements, or portions of a study or element, that are to be funded by SEP funds. SFEI will keep a copy of accounting records of the SEPs fund contributions and expenditures separately from regular RMP funds. In its annual and quarterly financial reports to the Regional Water Board, SFEI will separately itemize SEPs fund contributions and expenditures by each SEP funder.

SFEI will provide notice to the Regional Water Board within one month after receiving funds from a discharger for the SEPs and the notice will state SFEI's agreement to use the funds received as described herein.

### **Publicity**

Pursuant to the 2015 MOU, SFEI will indicate on its RMP website and annual and other reports that funding for these SEPs is the result of settlement of "San Francisco Bay Water Board" enforcement actions.