

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

In the matter of:	)	
	)	
<b>PHILLIPS 66 COMPANY SAN FRANCISCO REFINERY, CONTRA COSTA COUNTY</b>	)	<b>SETTLEMENT AGREEMENT AND STIPULATION FOR ENTRY OF ADMINISTRATIVE CIVIL LIABILITY ORDER</b>
	)	
<b>January 12 to 15, 2016, effluent limitation violation</b>	)	<b>ORDER NO. R2-2017-1036</b>
	)	
	)	
	)	
	)	

**Section I: INTRODUCTION**

1. This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Stipulated Order) is entered into by and between the California Regional Water Quality Control Board, San Francisco Bay Region, Prosecution Team (Prosecution Team), Phillips 66 Company (Phillips 66) (collectively, Parties), and is presented to the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), or its delegate, for adoption as an Order by settlement, pursuant to Government Code section 11415.60. This Stipulated Order resolves the violations alleged herein by the imposition of administrative civil liability against Phillips 66 in the amount of **\$109,000**.

**Section II: RECITALS**

2. Phillips 66 owns and operates the San Francisco Refinery at Rodeo in Contra Costa County (Facility), which processes an average crude oil throughput of approximately 84,000 barrels per day. The Facility produces gasoline, diesel fuel, jet fuel, fuel oil, and other petroleum products and by-products. The Facility discharges to San Pablo Bay via three outfalls (Discharge Points 002, 003, and 004). Phillips 66 is subject to the waste discharge requirements set forth in NPDES Permit CA0005053, Order No. R2-2016-0044 (2016 Permit). The 2016 Permit replaced Order No. R2-2011-0027 (the 2011 Permit) which was in effect at the time the discharges at issue occurred.
3. The Prosecution Team alleges the following:
  - a. From January 12 through 15, 2016, Phillips 66 discharged 13 million gallons of partially treated wastewater to San Pablo Bay in violation of the average monthly effluent limit for total recoverable copper specified in 2011 Permit section IV.A.2., Table 7. As identified in Exhibit A, attached hereto and incorporated by

- reference, the discharge violated the average monthly effluent limitation for total recoverable copper once, and violated the total recoverable copper maximum daily effluent four times. Because a violation of a monthly average is deemed a violation for each day of the month Phillips 66 discharged during that month, the average monthly effluent limit violation resulted in 29 days of violation. The 29 days of violation encompass the four violations of the daily maximum effluent limit for total recoverable copper because the discharge of a single pollutant, copper, caused both the daily and monthly violations.
- b. From November 2015 through September 2016, Phillips 66 violated the Permit's daily maximum effluent limit for total selenium once and the instantaneous maximum limit for total residual chlorine three times. Of these 4 violations, 3 are each subject to a \$3,000 mandatory minimum penalty pursuant to Water Code section 13385, subdivision (h), as identified in Exhibit B, attached hereto and incorporated by reference.
4. For the violation of the average monthly effluent limit for total recoverable copper, the settlement amount (\$100,000) is less than the liability the Prosecution Team calculated using Steps 1 through 10 of the State Water Resources Control Board's Water Quality Enforcement Policy (May 2010) (Enforcement Policy) as shown in Exhibit A. During settlement discussions, Phillips 66 argued that its acute toxicity testing results warranted a lower potential for harm score, asserting that the form of copper in the effluent was not bioavailable, that neither the acute nor chronic water quality objective for copper was exceeded on most of the days in question, and that the zone of potential impact was limited to the immediate vicinity of the outfall diffuser. Although the Prosecution Team does not agree with Phillips 66's contention, the final liability amount in Exhibit A (\$115,800) was reduced by approximately 5% for settlement considerations and reduced another \$10,000 in consideration of Phillips 66's position on potential for harm.
  5. To resolve the alleged violations in Section II, paragraphs 3 to 4, by consent and without further administrative proceedings, the Parties have agreed to the imposition of an administrative civil liability of **\$109,000** against Phillips 66. Phillips 66 shall make payment in accordance with Section III, paragraph 8. Payment of \$54,500 to the "State Water Pollution Cleanup and Abatement Account" is due no later than 30 days following the Regional Water Board executing this Order. The remaining \$54,500 shall be suspended upon completion of a Supplemental Environment Project (SEP).
  6. The Parties have agreed to settle the matter without administrative or civil litigation and to present this Stipulated Order to the Regional Water Board, or its delegate, for adoption as an Order by settlement, pursuant to Government Code section 11415.60.
  7. The Prosecution Team believes that the resolution of the alleged violations is fair and reasonable, and fulfills all of its enforcement objectives; that no further action is

warranted concerning the violations, except as provided in this Stipulated Order; and that this Stipulated Order is in the public's best interest.

**Section III: STIPULATIONS**

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

8. **Administrative Civil Liability:** Phillips 66 hereby agrees to the imposition of an administrative civil liability totaling \$109,000 to resolve the alleged violations as set forth in Section II as follows:

- a. No later than 30 days after the Regional Water Board, or its delegate, signs this Stipulated Order, Phillips 66 shall submit a check for \$54,500 made payable to the "State Water Pollution Cleanup and Abatement Account," reference the Order number on page one of this Stipulated Order, and mail the check to:

State Water Resources Control Board Accounting Office  
Attn: ACL Payment  
P.O. Box 1888  
Sacramento, CA 95812-1888

Phillips 66 shall e-mail a copy of the check to the State Water Resources Control Board Office of Enforcement ([paul.ciccarelli@waterboards.ca.gov](mailto:paul.ciccarelli@waterboards.ca.gov)) and the Regional Water Board ([habte.kifle@waterboards.ca.gov](mailto:habte.kifle@waterboards.ca.gov)).

- b. Phillips 66 agrees that \$54,500 of the administrative liability shall be paid to the Regional Monitoring Program, care of the San Francisco Estuary Institute, for implementation of a Supplemental Environmental Project (SEP), the North Bay Selenium Synthesis Study, as follows:
  - i. \$54,500 (SEP Amount) shall be paid solely for use toward the North Bay Selenium Synthesis Study. Funding this project will perform an information synthesis to support development of a selenium monitoring program for the North Bay. A complete description of this project is provided in Exhibit C, incorporated herein by reference.
  - ii. No later than 30 days after the Regional Water Board, or its delegate, signs this Stipulated Order, Phillips 66 shall submit a check for \$54,500 made payable to the "Regional Monitoring Program," reference the Order number on page one of this Stipulated Order, and mail the check to:

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

A copy of the check shall be sent to the Office of Enforcement and the Regional Water Board at the e-mail addresses set forth above.

9. **SEP:** The Parties agree that the payment of the SEP Amount is a SEP, and that the SEP Amount will be treated as a suspended administrative civil liability for purposes of this Stipulated Order. Phillips 66's SEP obligations will be satisfactorily completed upon the San Francisco Estuary Institute's written notification to Regional Water Board staff and Phillips 66. The written notification shall acknowledge that the Regional Monitoring Program received payment of the SEP Amount from Phillips 66 and the payment will be spent on the project described in Section III, paragraph 8(b) (i), in accordance with the terms of this Stipulated Order. The San Francisco Estuary Institute's annual and quarterly financial reports to the Regional Water Board shall be considered a final post-project accounting of expenditures.
10. **SEP Oversight Costs:** The San Francisco Estuary Institute will oversee implementation of the SEP in lieu of oversight by Regional Water Board staff and will report solely to the Regional Water Board. The San Francisco Estuary Institute has agreed to voluntarily cover any oversight costs related to the SEP. Oversight costs are not considered a part of the SEP Amount.
11. **Publicity Associated with the SEP:** Whenever Phillips 66 or its agents or subcontractors publicize one or more elements of the SEP, they shall state in a **prominent manner** that the project is undertaken as part of a settlement to a Regional Water Board enforcement action against Phillips 66.
12. **Regional Water Board is Not Liable:** Neither the Regional Water Board, its members, nor staff shall be held as parties to or guarantors of any contract entered into by Phillips 66, its directors, officers, employees, agents, representatives, or contractors in carrying out activities pursuant to this Stipulated Order.
13. **Compliance with Applicable Laws:** Phillips 66 understands that payment of administrative civil liability in accordance with the terms of this Stipulated Order and/or compliance with the terms of this Stipulated Order is not a substitute for compliance with applicable laws, and that continuing violations of the type alleged herein may subject it to further enforcement, including additional administrative civil liability.
14. **Party Contacts for Communications related to this Stipulation and Order:**

<b>For the Regional Water Board:</b> Habte Kifle San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, 14th Floor Oakland, CA 94612 <a href="mailto:Habte.Kifle@waterboards.ca.gov">Habte.Kifle@waterboards.ca.gov</a> (510) 622-2300	<b>For Phillips 66:</b> Refinery Manager San Francisco Refinery Phillips 66 Company 1380 San Pablo Avenue Rodeo, CA 94572 (510) 245-4415
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15. **Attorney's Fees and Costs:** Each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.
16. **Matters Addressed by this Stipulation:** Upon the Regional Water Board's or its delegate's adoption, this Stipulated Order represents a final and binding resolution and settlement of the alleged violations as of the effective date of this Stipulated Order. The provisions of this paragraph are expressly conditioned on the full payment of the administrative civil liability and SEP Amount by the deadlines specified in Section III, paragraph 8, and San Francisco Estuary Institute's written notification as specified in Paragraph 9.
17. **Public Notice:** Phillips 66 understands that this Stipulated Order must be noticed 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 Stipulated Order to the Regional Water Board, or its delegate, for adoption, the Prosecution Team may unilaterally declare this Stipulated Order void and decide not to present it to the Regional Water Board or its delegate. Phillips 66 agrees that it may not rescind or otherwise withdraw its approval of this proposed Stipulated Order.
18. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for the Regional Water Board's or its delegate's adoption of the Order, and public review of this Stipulated Order, is lawful and adequate. The Parties understand that the Regional Water Board, or its delegate, has the authority to require a public hearing on this Stipulated Order. In the event that procedural objections are raised or the Regional Water Board requires a public hearing prior to the Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure and/or this Stipulated Order as necessary or advisable under the circumstances.
19. **Interpretation:** This Stipulated Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. The Parties are represented by counsel in this matter.
20. **Modification:** The Parties shall not modify this Stipulated 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.
21. **If the Order Does Not Take Effect:** In the event that the Order does not take effect because the Regional Water Board or its delegate does not approve it, or the State Water Resources Control Board (State Water Board) or a court vacates it in whole or in part, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties

agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to the following:

- a. Objections related to prejudice or bias of any of the Regional Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the 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 Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the violation alleged herein in this matter; or
- b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.

22. **Waiver of Hearing:** Phillips 66 has been informed of the rights Water Code section 13323, subdivision (b), provides and hereby waives its right to a hearing before the Regional Water Board prior to the Order's adoption.
23. **Waiver of Right to Petition or Appeal:** Phillips 66 hereby waives its right to petition the Regional Water Board'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-level court.
24. **Covenant Not to Sue:** Phillips 66 covenants not to sue or pursue any administrative or civil claim against any State agency or the State of California, its officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by this Stipulated Order or the SEP.
25. **No Admission of Liability:** In settling this matter, Phillips 66 does not admit to any of the allegations stated herein, or that it has been or is in violation of the Water Code, or any other federal, State, or local law or ordinance, with the understanding that in the event of any future enforcement action by the Regional Water Board, the State Water Board, or any other Regional Water Quality Control Board, this Stipulated Order may be used as evidence of a prior enforcement action consistent with Water Code section 13327 or section 13385, subdivision (e).
26. **Necessity for Written Approvals:** All approvals and decisions of the Regional Water Board under the terms of this Stipulated Order shall be communicated to Phillips 66 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 Phillips 66 of its obligation to obtain any final written approval that this Stipulated Order requires.

27. **Authority to Bind:** Each person executing this Stipulated Order in a representative capacity represents and warrants that he or she is authorized to execute this Stipulated Order on behalf of and to bind the entity on whose behalf he or she executes the Stipulated Order.
28. **No Third Party Beneficiaries:** This Stipulated Order is not intended to confer any rights or obligations on any third party or parties, and no third party or parties shall have any right of action under this Stipulated Order for any cause whatsoever.
29. **Severability:** This Stipulated Order is severable; if any provision is found invalid, the remainder shall remain in full force and effect.
30. **Counterpart Signatures; Facsimile and Electronic Signature:** This Stipulated 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 Stipulated 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.
31. **Effective Date:** This Stipulated 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 Stipulated Order.

**IT IS SO STIPULATED.**

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

Date: October 9, 2017

By: 

Thomas Mumley  
Assistant Executive Officer

Approved as to form:

By: 

Digitally signed  
by Paul Ciccarelli  
Date: 2017.10.05  
13:26:50 -07'00'

Paul Ciccarelli, Staff Counsel  
State Water Resources Control Board  
Office of Enforcement

**PHILLIPS 66 COMPANY**

Date: 9-29-2017

By: 

Mark Evans, Manager  
San Francisco Refinery



**ORDER OF THE REGIONAL WATER BOARD**

- 32. This Order incorporates the foregoing Sections I through III by this reference as if set forth fully herein.
- 33. In accepting this Stipulation, the Regional Water Board has considered, where applicable, each of the factors prescribed in Water Code section 13385, subdivision (e), and has applied the Penalty Calculation Methodology set forth in the State Water Resource Control Board’s Enforcement Policy, which is incorporated herein by this reference. The Regional Water Board’s consideration of these factors and application of the Penalty Calculation Methodology is based on information the Prosecution Team obtained in investigating the allegations set forth in the Stipulation or otherwise provided to the Regional Water Board.
- 34. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, § 21000 et seq.) in accordance with section 15321, subdivision (a)(2), Title 14, of the California Code of Regulations. 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.
- 35. The Executive Officer of the Regional Water Board is authorized to refer this matter directly to the Attorney General for enforcement if Phillips 66 fails to perform any of its obligations under the 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.

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Bruce H. Wolfe  
Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region

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Date

Attachments

**EXHIBIT A**

**Factors in Determining  
Administrative Civil Liability**

**Phillips 66 Company  
Discharge of Partially Treated Wastewater to San Pablo Bay  
Rodeo, Contra Costa County**

The State Water Resources Control Board’s Water Quality Enforcement Policy (May 2010) (Enforcement Policy) establishes a methodology for assessing administrative civil liability. Use of the methodology addresses the factors required by California Water Code section 13385, subdivision (e). Each factor in the Enforcement Policy and its corresponding category, adjustment, and amount for the alleged violation are 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 located at:

[http://www.waterboards.ca.gov/water\\_issues/programs/enforcement/docs/enf\\_policy\\_final111709.pdf](http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf)

**ALLEGED VIOLATIONS**

From January 12 through 15, 2016, Phillips 66 Company (Phillips 66) discharged 13 million gallons of partially treated wastewater to San Pablo Bay in violation of NPDES Permit CA0005053, Order No. R2-2011-0027 (Permit). This discharge violated the maximum daily as well as the average monthly effluent limits for total recoverable copper specified in Permit section IV.A.2, Table 7. It violated the maximum daily effluent limit four times and the average monthly effluent limit once. A violation of a monthly average is deemed a violation for each day of the month Phillips 66 discharged during that month.<sup>1</sup> The copper concentrations and volumes discharged in violation of the Permit are summarized below:

<b>Date</b>	<b>Volume Discharged in Violation of Effluent Limit (million gallons/day)</b>	<b>Total Recoverable Copper Concentration (µg/L)</b>	<b>Effluent Limit (µg/L)</b>
1/12/2016	2.15	550	120 (maximum daily)
1/13/2016	2.90	490	
1/14/2016	3.48	360	
1/15/2016	4.47	200	

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<sup>1</sup> The Water Boards interpret Water Code section 13385(c)(1) the same as Clean Water Act section 309(d). (Wat. Code §, 13372 (requiring state provision be construed to assure consistency with the federal program requirements); see *Atlantic States Legal Foundation, Inc. v. Tyson Foods, Inc.* (11th Cir. 1990) 897 F.2d 1128 (holding that a violation of a monthly average is a violation for each day of the month); *Natural Resources Defense Council Inc. v. Texaco Refining and Marketing, Inc.* (3d Cir. 1993) 2 F.3d 493 (assessing penalties for a violation of a monthly average based on the number of days the facility was in operation).)

Date	Volume (million gallons/month)	Total Recoverable Copper Concentration (µg/L)	Effluent Limit (µg/L)
1/1–1/31/2016	115	109	48 (average monthly)

As reported in Phillips 66’s February 10, 2016, *Five-Day Report*, the violations occurred during turnaround, when residual cleaning chemicals from a hydrocracker unit were conveyed to the wastewater treatment plant. The chemicals caused copper desorption from the powdered activated carbon within the treatment unit, which resulted in San Pablo Bay discharges containing copper concentrations above effluent limits from January 12 through 15, 2016. From January 16 through 31, fourteen monitoring events showed daily copper concentrations in compliance with the maximum daily effluent limit.

Phillips 66 is subject to administrative liability for the violations pursuant to Water Code section 13385, subdivision (a)(2). The factors considered in determining the liability are described below.

PENALTY FACTOR	SCORE	DISCUSSION
Harm or Potential Harm to Beneficial Uses for Discharge Violations	3 and 2	<p><b>Harm or Potential for Harm to Beneficial Uses: Moderate (for first two days) and Below Moderate (for remaining 27 days)</b></p> <p>The discharge occurred over a period of 29 days. For the reasons set forth below, a score of 3 (moderate) is assigned for the first two days of violation because the discharge posed a “moderate threat to beneficial uses (i.e., impacts are ... reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects). (Enforcement Policy, p. 12). A score of 2 (below moderate) is assigned for the remaining 27 days of violation because the discharge posed a “less than moderate threat to beneficial uses (i.e., impacts are...observed or reasonably expected, harm to beneficial uses is minor).” (<i>Ibid.</i>)</p> <p>As listed in the San Francisco Bay Basin Plan, the beneficial uses of San Pablo Bay include preservation of rare and endangered species (RARE), fish spawning (SPWN), estuarine habitat (EST), shellfish harvesting (SHELL), commercial and sport fishing (COMM), industrial service supply (IND), fish migration (MIGR), navigation (NAV), water contact recreation (REC1), noncontact water recreation (REC2), and wildlife habitat (WILD). The beneficial uses most affected by this discharge were fish spawning, commercial and sport fishing, and preservation of rare and endangered species.</p> <p>The threat to beneficial uses can be assessed by estimating the copper concentration in the receiving water following discharge and initial mixing, and comparing the result to the site-specific water quality objectives in Table 3-3A of the Basin Plan. These objectives were developed to be protective of aquatic life. The acute (1-hour) and chronic (4-day) objectives for dissolved copper in San Pablo Bay are 9.4 and 6.0 µg/L. Based on site-specific translators listed in Table 7.2.1-2 of the Basin Plan, these dissolved copper objectives equate to acute and chronic total recoverable copper criteria of 14.2 and 15.8 µg/L.</p>

PENALTY FACTOR	SCORE	DISCUSSION
		<p>To estimate the copper concentrations in the receiving water following discharge and initial mixing, discharge concentrations must be adjusted to reflect dilution. A study Phillips 66 submitted indicates the minimum initial dilution at the outfall is at least 37:1 (1 part effluent to 37 parts receiving water after mixing).<sup>2</sup> The ambient background copper concentration can be conservatively estimated based on data collected at the Yerba Buena Island Regional Monitoring Program monitoring station, where the highest total recoverable copper concentration measured was 2.55 µg/L. Accounting for dilution and background copper concentrations, the daily total recoverable copper concentrations of 550, 490, 360, and 200 µg/L are reduced to 17, 16, 12, and 7.9 µg/L. The monthly total recoverable copper concentration of 110 µg/L is reduced to 5.4 µg/L.</p> <p>The first two days of discharge have a “moderate” potential for harm because the diluted concentrations exceeded the acute water quality criterion by factors of 1.2 and 1.1 and posed a moderate threat to beneficial uses. The remaining 27 days of the discharge have a “below moderate” potential for harm because the third and fourth days of the discharge did not exceed the acute criterion, and the monthly average discharge, adjusted for dilution, did not exceed the acute or chronic criteria. Because the event had a limited duration and the actual dilution was likely greater than 37:1, the discharge during the remaining 27 days of violation posed a less-than-moderate threat to beneficial uses.</p>
Physical, Chemical, Biological, or Thermal Characteristics (Degree of Toxicity)	4	<p><b>Physical, Chemical, Biological, or Thermal Characteristics: Major</b></p> <p>A score of 4 (major) 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 or receptor harm is considered imminent).” (Enforcement Policy, p. 13.) Copper is an essential nutrient to aquatic life at low concentrations, but it can be toxic at higher concentrations. Potential acute effects include mortality. Chronic exposure can affect survival, growth, and reproduction. The Permit regulates copper due to its potential toxicity to aquatic life. The site-specific water quality objectives in Basin Plan Table 3-3A were developed to be protective of aquatic life. Concentrations above these water quality objectives indicate potential toxicity. The degree of toxicity in the discharge is indicated below:</p> <ul style="list-style-type: none"> <li>• The daily total recoverable copper concentrations of 550, 490, 360, and 200 µg/L exceed the acute water quality criterion (14.2 µg/L total copper) by factors of 39, 35, 25, and 14.</li> <li>• The monthly average total recoverable copper concentration of 110 µg/L exceeds the chronic water quality criterion (15.8 µg/L total copper) by a factor of 7.</li> </ul> <p>The discharge material posed a significant threat to potential receptors because it exceeded water quality objectives many times over.</p>
Susceptibility to Cleanup or Abatement	1	<p><b>Susceptibility to Cleanup: No</b></p> <p>A score of 1 is appropriate because the discharge quickly comingled with the receiving waters and was not susceptible to cleanup or abatement. (Enforcement Policy, p. 13.) Phillips 66 pumps its effluent to a deepwater diffuser in San Pablo</p>

<sup>2</sup> Field Dye Tracer Studies and Initial Dilution Modeling of the Process Wastewater Effluent from the UNOCAL San Francisco Refinery Diffuser NPDES Permit No. CA0005053, Entrix Inc., December 1989

PENALTY FACTOR	SCORE	DISCUSSION
		Bay where rapid mixing occurs (Permit, p. 6). There was no opportunity to abate the effects of the discharge.
Final Score	8 and 7	<p><b>Potential for Harm</b></p> <p>The scores for the above three factors are added together to provide a “Potential for Harm” score of 8 (3+4+1 = 8) for the first two days of discharge, and 7 (2+4+1=7) for the remaining 27 days of discharge based on the monthly average violation.</p>
Deviation from Requirement	Major	<p><b>Deviation from Requirement: Major</b></p> <p>A major deviation from requirement is appropriate because the discharge contained copper concentrations that exceeded the Permit’s maximum daily and average monthly effluent limits.</p> <p>The Permit requires the discharge to be treated to achieve concentrations below effluent limits prior to discharge to San Pablo Bay. Because treatment did not achieve the effluent limits and the discharge had the potential to affect aquatic life, the requirement was rendered “ineffective in its essential functions.” (Enforcement Policy, p. 14.)</p>
Per Day Factor for Discharge Violations	0.600 and 0.310	<p><b>Per-Day Factor for Discharges</b></p> <p>The Enforcement Policy states, “Generally, it is intended that effluent limit violations be addressed on a per day basis only.” (Enforcement Policy, p. 14.) Table 2 of the Enforcement Policy contains per-day factors for penalty assessment. Based on the Potential for Harm score of 8 and a major Deviation from Requirement, the per-day factor is 0.600 for the first two days. Likewise, based on the Potential for Harm score of 7 and a major Deviation from Requirement, the per-day factor is 0.310 for the remaining 27 days.</p>
<b>Initial Liability</b>	<b>\$95,700</b>	<p><b>Initial Liability</b></p> <p>Phillips 66 violated the Permit five ways, including one violation of the average monthly effluent limit. A violation of the monthly limit is considered to extend across each day of the month during which the discharge occurred. Because Phillips 66 exceeded the monthly effluent limit and discharged for 29 days in January 2016, there are 29 days of violation. The initial liability is as follows:</p> <p>\$12,000 = \$10,000/day x 2 days x 0.600 and        \$83,700 = \$10,000/day x 27 days x 0.310</p> <p><b>Initial Liability: \$95,700 = \$12,000 + \$83,700</b></p>
<b>Adjustments for Discharger Conduct</b>		
Culpability	1.1	<p><b>Culpability</b></p> <p>A higher-than-neutral culpability of 1.1 is appropriate because Phillips 66 did not evaluate the potential impacts of the cleaning chemical agent on the powdered activated carbon treatment unit before using the chemical agent on the unit for the first time. While Phillips 66 reviewed the Material Safety Data Sheet and verified that the cleaning chemical agent was not toxic to aquatic receptors, it did not verify the chemical agent’s impact to the treatment system.</p>

PENALTY FACTOR	SCORE	DISCUSSION
Cleanup and Cooperation	1	<p><b>Cleanup and Cooperation</b></p> <p>A neutral score of 1 is appropriate because Phillips 66 took progressive steps to return to compliance. Phillips 66 stated that it added 1,400 pounds of powdered activated carbon for each of the first three days it exceeded the daily maximum effluent limit, and added 5,000 pounds on the last day it exceeded the limit. Phillips 66 maintains, however, that the problem would have resolved itself without the activated carbon as the copper concentration in the discharge declined each day of violation. Since the January 2016 incident, Phillips 66 has stopped using the cleaning chemical agent and in the future will conduct jar tests to fully understand the potential impact of new chemicals on the treatment system prior to use.</p>
History of Violations	1.1	<p><b>History of Violations</b></p> <p>The Enforcement Policy states, “Where there is a history of repeat violations, a minimum multiplier of 1.1 should be used to reflect this.” (Enforcement Policy, p. 17.) Phillips 66 has violated the effluent limits in its Permit on a number of prior occasions, as demonstrated by the following enforcement orders:</p> <ul style="list-style-type: none"> <li>• Order No. R2-2016-1002: \$9,000 penalty for three chlorine violations;</li> <li>• Order No. R2-2014-1008: \$6,000 penalty for two selenium violations; and</li> <li>• Order No. R2-2012-0044: \$3,000 penalty for one chlorine violation.</li> </ul>
<b>Total Base Liability</b>	<b>\$115,800 (rounded)</b>	<p><b>Total Base Liability</b></p> <p>The initial liability is multiplied by each factor related to Phillips 66’s conduct to determine the Total Base Liability as follows:</p> <p><math>\\$115,797 = \\$95,700 \times 1.1 \text{ (culpability)} \times 1 \text{ (cleanup)} \times 1.1 \text{ (history)}</math></p>
Ability to Pay and Continue in Business	No adjustment	<p><b>Ability to Pay</b></p> <p>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. According to Phillips 66’s third quarter 2016 earnings report (<a href="http://investor.phillips66.com">http://investor.phillips66.com</a>), it earned \$511 million and held cash and cash equivalents of \$2.3 billion. A downward adjustment is unwarranted.</p>
Economic Benefit	\$3,750	<p><b>Economic Benefit</b></p> <p>Phillips 66 enjoyed relatively little economic benefit as a result of the violations. Economic benefit includes the costs avoided by not applying powdered activated carbon during the four days of violation. If Phillips 66 had also added the additional 5,000 pounds of carbon beginning with the first day of violation, the additional cost would have been about \$3,750. This estimate is based on the cost for 7.5 tons of carbon at approximately \$500 per ton.</p>
<b>Other Factors as Justice May Require</b>		
Staff Costs	\$0	<p><b>Costs of Investigation and Enforcement Adjustment</b></p> <p>The Prosecution Team did not consider staff costs in determining the final proposed liability amount.</p>

Phillips 66 San Francisco Refinery  
 Exhibit A - Administrative Civil Liability Factors

<b>PENALTY FACTOR</b>	<b>SCORE</b>	<b>DISCUSSION</b>
Maximum Liability	\$130.03 Million	<p><b>Maximum Liability</b></p> <p>Water Code section 13385 allows up to \$10,000 for each day in which a violation occurs and \$10 for each gallon exceeding 1,000 gallons discharged and not cleaned up. The maximum liability calculated based on 13 million gallons and four days of violations is as follows:</p> $\$130.03 \text{ Million} = (13,000,000 \text{ gallons} - 1,000 \text{ gallons}) \times \$10/\text{gallon} + (4 \text{ days} \times \$10,000/\text{day})$
Minimum Liability	\$15,000	<p><b>Minimum Liability</b></p> <p>Water Code section 13385 requires a mandatory minimum penalty of \$3,000 for each serious violation. There were five serious violations subject to mandatory minimum penalties (i.e., four maximum daily and one average monthly violation). Thus, the minimum liability is \$15,000, which is higher than the economic benefit plus ten percent.</p>
<b>Final Liability</b>	<b>\$115,800</b>	<p><b>Final Liability</b></p> <p>The final liability amount is the Total Base Liability adjusted for ability to pay, economic benefit, other factors, and maximum and minimum liabilities. An adjustment for economic benefit is not included because the proposed liability far exceeds the estimated economic benefit and serves as a sufficient deterrent against future violations. The final liability remains at \$115,800.</p>

**EXHIBIT B**  
**Mandatory Minimum Penalties**  
**For**

PHILLIPS 66 COMPANY

San Francisco Refinery, 1380 San Pablo Avenue, Rodeo, Contra Costa County  
Order No. R2-2011-0027, NPDES Permit CA0005053

The following table lists alleged violation(s) for which the Discharger is subject to civil liabilities pursuant to Water Code sections 13385 and 13385.1. The table lists the mandatory minimum penalty (MMP) that applies.

No	CIWQS Violation ID No.	Date of Occurrence	Effluent Limitation or Violation Description (Unit)	Effluent Limit	Reported Value	Percent a Group I or Group II Pollutant is over Effluent Limitation	Type of Exceedance	CWC Section 13385(h) and/or (i) Required MMP
1	1014165	9/22/2016	Selenium, Total Daily Maximum (ug/L)	50	54.3	8.6	C1	
2	1013095	9/13/2016	Chlorine, Total Residual Instantaneous Maximum (mg/L)	0.0	0.9	> 20 (See Note 1)	C1, S	\$3,000
3	1013279	8/2/2016	Chlorine, Total Residual Instantaneous Maximum (mg/L)	0.0	0.5	> 20 (See Note 1)	C2, S	\$3,000
4	1000376	11/24/2015	Chlorine, Total Residual Instantaneous Maximum (mg/L)	0.0	1.1	> 20 (See Note 1)	C1, S	\$3,000
<b>Total</b>								<b>\$9,000</b>

**Legend for Table:**

CIWQS = California Integrated Water Quality System database used by the Water Boards to manage violation and enforcement activities.

Violation ID = Identification number assigned to a permit exceedance in CIWQS.

C = Count – The number that follows represents the number of exceedances in the past 180 days, including this violation. A count greater than three (> C3) means that a penalty under Water Code section 13385(i) applies.

S = Serious, which means that a penalty under Water Code section 13385(h) applies when an effluent limitation is exceeded 40 percent or more for a Group I pollutant or 20 percent or more for a Group II pollutant.

**Notes:**

Note 1: Chlorine is a Group II pollutant and the percent above the limit of 0.0 mg/L is more than 20 but not quantifiable.

Place: 255284  
WDID: 2 071051001



## **EXHIBIT C**

### **Study Description for Supplemental Environmental Project (SEP) Fund for the San Francisco Bay Regional Monitoring Program (RMP)**

#### **Basic Information**

Study Name: North Bay Selenium Synthesis

Study Budget, Total: \$54,500

San Francisco Estuary Institute (SFEI) Contacts:

- Technical – Jay Davis, jay@sfei.org, cell (510) 304-2308
- Financial – Lawrence Leung, lawrence@sfei.org, (510) 746-7356

#### **Study Description**

The goal of the study is to perform an information synthesis to support development of a selenium monitoring program for North San Francisco Bay. The synthesis will support an integrated and strategic approach to monitoring in support of the selenium TMDL. Specific items to be covered include examination of the linkages between the three indicators (i.e., water column, sediment, and tissue), completing the development of the statistical framework for monitoring design and data evaluation, and consideration of analytical methods for long-term monitoring.

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

This study complies with the following SEP criteria:

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

This study goes above and beyond applicable obligations of dischargers because of the following:

- This project is a study above and beyond what is required in permits or orders issued by the Regional Water Board or what can be accomplished with dischargers' required monetary contributions to the Regional Monitoring Program for Water Quality in San Francisco Bay.

#### **Study Milestone and Performance Measure**

A report on the monitoring design framework will be available by December 2018.

### **Study Budget and Reports to 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 SEP 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 SEP 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 SEP and the notice will state SFEI's agreement to use the funds received as described herein.

### **Publicity**

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