

Los Angeles Regional Water Quality Control Board

September 15, 2016

Ms. Laura Vlk, Senior EH&S Specialist
Freeport-McMoRan Oil & Gas – Inglewood Oil Field
5640 South Fairfax Avenue
Los Angeles, CA 90056

Dear Ms. Vlk:

TIME SCHEDULE ORDER (TSO) R4-2013-0022-A01 AMENDING TSO NO. R4-2013-0022 – FREEPORT-MCMORAN OIL & GAS, INGLEWOOD OIL FIELD (NPDES PERMIT NO. CA0057827, CI-6240)

On August 12, 2016, the Time Schedule Order (TSO) Amendment No. R4-2013-0022-A01 for Freeport-McMoRan Oil & Gas, Inglewood Oil Field was transmitted to all interested parties. Comments on the TSO amendment were due to the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) on September 12, 2016. One comment letter was received from Heal the Bay. With further clarifications provided by the Discharger, Regional Board staff had a conference call with Heal the Bay and all issues were resolved. The comment letter received and the Response to Comment email are available on the Regional Board's web site at www.waterboards.ca.gov/losangeles.

As specified in the public notice associated with the tentative TSO amendment, the Executive Officer has issued the TSO amendment without a public hearing. Therefore, shortly after resolving all issues raised by Heal the Bay, the final order was submitted to the Executive Officer for signature. The enclosed TSO Amendment No. R4-2013-0022-A01 extends the TSO expiration date from September 15, 2016 to February 7, 2018 and includes new tasks and schedules for the implementation of storm water treatment systems at the Inglewood Oil Field. The Discharger is required to achieve full compliance with the final effluent limitations in Order No. R4-2013-0021 by February 7, 2018.

If you have any questions, please contact Jau Ren Chen at (213) 576-6656.

Sincerely,



Cassandra Owens, Chief
Industrial Permitting Unit

Enclosures
(via email only):

David Smith, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Kenneth Wong, U.S Army Corps of Engineers
Bryant Chesney, NOAA, National Marine Fisheries Service

Freeport-McMoRan Oil & Gas – Inglewood Oil Field
Tentative Time Schedule Order No. R4-2013-0022-A01

Jeff Phillips, Department of Interior, U.S. Fish and Wildlife Service
William Paznokas, Department of Fish and Game, Region 5
Daniel Dudak, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
Tim Smith, Los Angeles County, Department of Public Works, Waste Management Division
Teresa Henry, California Coastal Commission, South Coast Region
Angelo Bellomo, Los Angeles County, Department of Health Services
Rita Kampalath, Heal the Bay
Steven Johnson, Heal the Bay
Liz Crosson, Santa Monica Baykeeper
Becky Hayat, Natural Resources Defense Council
Jason Weiner, Ventura Coastkeeper
Karly Katona, County of Los Angeles
Emily Duchon, ALTA Planning + Design
Randy Anderson, ALTA Planning + Design
Ana Petrlc, Mountain Recreation & Conservation Authority
Timothy Stapleton, Los Angeles County, Department of Regional Planning
Paul Ferrazzi, City of Culver City
Nabil Abu-Ghazaleh, West Los Angeles College
Glenn Striegler, Los Angeles Unified School District
Scott Zeidman, Culver City Unified School District
Roger Shockley, Vickers Family Trust
Liz Gosnell, Cone Fee Family Trust
Ian Cousineau, Raintree Community HOA
Gary Gless, Windsor Hills HOA
Jon Melvin, Blair Hills HOA
Catherine Cottles, United HOA (View Park)
Ronda Jones, Baldwin Hills Estates HOA
John Kuechle, Culver Crest Neighborhood Assoc.
Carmen Spiva, Ladera Heights Civic Association
George Mallory, Homeowner (Lewis Homes)
Irma Munoz, Homeowner (Baldwin Vista)
Toni Tabor, Windsor Hills Block Club
Lark Galloway-Gilliam, Community Health Councils, Inc.
Gwendolyn Flynn, Community Health Councils, Inc.
David McNeill, Baldwin Hills Conservancy
Robert Garcia, The City Project
Patrick Gorski, Plains Exploration & Production Company
Lisa Paillet, Plains Exploration & Production Company
Daniel Tormey, Catalyst Environmental Solutions
Kristy Allen, Tetra Tech
Jae Kim, Tetra Tech
Mark Didak

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

TIME SCHEDULE ORDER NO. R4-2013-0022-A01

Amending

TIME SCHEDULE ORDER NO. R4-2013-0022

**REQUIRING FREEPORT-MCMORAN OIL & GAS
(FORMERLY PLAINS EXPLORATION & PRODUCTION COMPANY)
(INGLEWOOD OIL FIELD)
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER NO. R4-2013-0021
(NPDES PERMIT NO. CA0057827)**

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) finds:

1. Freeport-McMoRan Oil & Gas, formerly Plains Exploration & Production Company¹, (hereinafter "FM O&G" or "Discharger") owns and operates the Inglewood Oil Field (hereinafter Facility or Field), an actively producing oil and gas field located in the Baldwin Hills area of Los Angeles, California.
2. FM O&G discharges storm water from the Inglewood Oil Field under waste discharge requirements (WDRs) contained in Order No. R4-2013-0021 adopted by the Regional Water Board on February 7, 2013. Order No. R4-2013-0021 serves as the National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0057827) and it will expire on January 10, 2018.
3. Order No. R4-2013-0021 authorizes the Discharger to discharge up to 7.55 million gallons per day (MGD) of storm water runoff. Storm water runoff, including construction storm water within the Field, flows via natural drainage areas to six retention basins. The retention basins and their corresponding discharge points are:

| Discharge Point No. | Discharge Point Latitude | Discharge Point Longitude | Retention Basin Name | Maximum Rainfall Runoff Flow (mgd) |
|----------------------------|---------------------------------|----------------------------------|-----------------------------|---|
| 001 | 33°59'22" N | 118°22'09" W | LAI Last Chance Basin | 0.666 |
| 002 | 34°00'52" N | 118°22'29" W | Dabney-Lloyd Basin | 3.06 |
| 003 | 33°59'27" N | 118°21'40" W | Stocker Basin | 0.634 |
| 004 | 34°00'03" N | 118°23'03" W | Vickers – I Basin | 1.58 |
| 005 | 34°00'29" N | 118°23'12" W | Lower Vickers- II Basin | 1.01 |
| 006 | 34°00'36" N | 118°23'12" W | Upper Vickers- II Basin | 0.60 |

¹ Notification of name change was submitted to the State Water Resources Control Board on June 13, 2013. The Discharger indicated that Plains Exploration & Production Company (PXP) has merged with and into Freeport-McMoRan Oil & Gas effective on May 31, 2013.

Runoff from these basins is discharged to the Los Angeles County storm drain system. Two of the basins, Stocker and LAI Last Chance, discharge through the storm drain system into Centinela Creek that drains directly to Ballona Creek Estuary just below the boundary with Ballona Creek (Reach 2). The other four basins, Dabney-Lloyd, Vickers - I, Lower Vickers - II and Upper Vickers - II, discharge through the storm drain system to Ballona Creek (Reach 2).

- On July 7, 2005, the Regional Water Board adopted the Total Maximum Daily Load (TMDL) for metals in Ballona Creek (Resolution No. R05-007). The State Water Board approved the TMDL on October 20, 2005; Office of Administrative Law (OAL) and USEPA approvals were received on December 9, 2005 and December 22, 2005, respectively. A revised metals TMDL was adopted by the Regional Water Board on September 6, 2007 (Resolution No. 2007-015). State Water Board, OAL, and USEPA approval occurred on June 17, 2008, October 6, 2008, and October 29, 2009, respectively. The Ballona Creek Metals TMDL includes WLAs for discharges to Ballona Creek.

The discharge from the Inglewood Oil Field has been classified as a major discharge because the permitted discharge flow (7.55 MGD) exceeds the threshold of one (1) MGD. The Ballona Creek Metals TMDL includes specific WLAs for some of the major dischargers, the MS4 permittees and CalTrans, but no specific WLA has been designated for the Inglewood Oil Field in the TMDL. Since the Inglewood Oil Field is a point source to Ballona Creek, concentration-based WLAs for other point sources are used for developing effluent limitations for discharges from the Inglewood Oil Field. However, the Ballona Creek Metals TMDL is not applicable to the discharges from Discharge Point Nos. 001 and 003 to Centinela Creek because Centinela Creek is not listed as impaired for metals and it drains to Ballona Creek Estuary, not Ballona Creek.

- Order No. R4-2013-0021 prescribes effluent limitations for copper, lead, selenium and zinc for each of the six basins, respectively. The final effluent limitations are as follows:

| Constituent | Units | Discharge Limitations Daily maximum | | | | Rationale |
|---|----------------------|--|-------------------------|-------------------------|-------------------------|-------------------|
| | | Discharge Point No. 002 | Discharge Point No. 004 | Discharge Point No. 005 | Discharge Point No. 006 | |
| Copper, (Dry-weather) ³ | µg/L | 39 | 39 | 39 | 39 | TMDL ² |
| | lbs/day ¹ | 1.0 | 0.51 | 0.33 | 0.20 | |
| Lead, (Dry-weather) ³ | µg/L | 21 | 21 | 21 | 21 | TMDL ² |
| | lbs/day ¹ | 0.54 | 0.28 | 0.18 | 0.11 | |
| Selenium, (Dry-weather) ³ | µg/L | 8.2 | 8.2 | 8.2 | 8.2 | TMDL ² |
| | lbs/day ¹ | 0.21 | 0.11 | 0.069 | 0.041 | |

| Constituent | Units | Discharge Limitations Daily maximum | | | | Rationale |
|---|----------------------|--|-------------------------|-------------------------|-------------------------|-------------------|
| | | Discharge Point No. 002 | Discharge Point No. 004 | Discharge Point No. 005 | Discharge Point No. 006 | |
| Zinc, (Dry-weather) ³ | µg/L | 498 | 498 | 498 | 498 | TMDL ² |
| | lbs/day ¹ | 12.7 | 6.56 | 4.19 | 2.49 | |
| Copper, (Wet-weather) ³ | µg/L | 18 | 18 | 18 | 18 | TMDL ² |
| | lbs/day ¹ | 0.46 | 0.24 | 0.15 | 0.090 | |
| Lead, (Wet-weather) ³ | µg/L | 59 | 59 | 59 | 59 | TMDL ² |
| | lbs/day ¹ | 1.5 | 0.78 | 0.50 | 0.30 | |
| Selenium, (Wet-weather) ³ | µg/L | 5.0 | 5.0 | 5.0 | 5.0 | TMDL ² |
| | lbs/day ¹ | 0.13 | 0.066 | 0.042 | 0.025 | |
| Zinc, (Wet-weather) ³ | µg/L | 119 | 119 | 119 | 119 | TMDL ² |
| | lbs/day ¹ | 3.04 | 1.57 | 1.00 | 0.60 | |
| | | Discharge Point No. 001 | | Discharge Point No. 003 | | |
| Copper, (All-weather) | µg/L | 23 | | 23 | | CTR ² |
| | lbs/day ¹ | 0.13 | | 0.12 | | |
| Lead, (All-weather) | µg/L | 9.9 | | 9.9 | | CTR ² |
| | lbs/day ¹ | 0.055 | | 0.052 | | |
| Selenium, (All-weather) | µg/L | 8.2 | | 8.2 | | CTR ² |
| | lbs/day ¹ | 0.046 | | 0.043 | | |
| Zinc, (All-weather) | µg/L | 184 | | -- | | CTR ² |
| | lbs/day ¹ | 1.02 | | -- | | |

¹. The mass emission rates are based on the maximum permitted flow rate of each basin and are calculated using the following formula:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times \text{effluent limitation (mg/L)} \times 8.34$$

². TMDL = Total Maximum Daily Load for Metals in Ballona Creek; CTR = California Toxics Rule.

³. Dry-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek as measured at Stream Gage No. F38C-R is less than 40 cubic feet per second (cfs). Wet-weather effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 40 cfs.

The final effluent limitations prescribed are the result of an evaluation for reasonable potential for these pollutants to exist in the discharge. For Discharge Point Nos. 002, 004, 005, and 006, the final effluent limitations for copper, lead, selenium and zinc were based on WLAs in the Ballona Creek Metals TMDL. The final effluent limitations for copper, lead, selenium and zinc for Discharge Point Nos. 001 and 003 were based on California Toxics Rule (CTR) criteria to protect the beneficial uses of the receiving water using a hardness value of 166 mg/L as CaCO₃. The USEPA promulgated the CTR criteria to protect the general population at an incremental cancer risk level of one in a million (10⁻⁶), for all priority toxic pollutants regulated as carcinogens. Since the discharge from the Facility is storm water only and it is not

continuous as defined in 40 CFR section 122.2, only maximum daily effluent limitations (MDELs) are established in Order No. R4-2013-0021.

6. Based on historical analyses, the Facility cannot consistently comply with the final effluent limitations for copper, lead, selenium and zinc, which were newly prescribed in Order No. R4-2013-0021. New or modified control measures were and continue to be necessary for the Facility to comply with the final effluent limitations for these constituents. Such control measures cannot be designed, installed, and put into operation within 30 calendar days.
7. On August 20, 2012, the Discharger requested that the Regional Water Board issue a Time Schedule Order (TSO) with interim effluent limitations for copper, lead, selenium and zinc because the discharge from the Facility cannot consistently meet the final effluent limitations for these metals. With the request letter, the Discharger also included a Work Plan that indicated the actions to be taken to achieve full compliance with the final effluent limitations in Order No. R4-2013-0021. The tasks in Phase 1 include improving the storm water sampling and analysis, assessing modifications to the discharge infrastructure to minimize sediment release, improving water management by conducting releases during non-rainfall events, and evaluation of areas of potential metals accumulation. If compliance cannot be achieved by the Phase 1 measures, the Discharger will implement Phase 2 efforts. The scope of Phase 2 activities consist of two actions: redesign of the basins including the intakes and the outlet works as well as evaluation of best management practices to further reduce entrained sediments affecting the metals concentrations in the discharge from basins.
8. Due to the infrequent discharges (ranging from 1.0 to 3.3 per year on average) from the basins and the need to collect a representative suite of samples to demonstrate the ability to reliably comply with the final effluent limitations, on August 20, 2012, the Discharger requested a four-year period for the Phase 1 activities and a total of nine years for the full implementation of Phase 1 and Phase 2 measures.
9. On February 7, 2013, the Regional Water Board issued Time Schedule Order No. R4-2013-0022 to the Discharger. When originally issued, this TSO allowed the Discharger a three-and-a-half year period, until September 15, 2016, for the implementation of Phase 1 activities to achieve compliance with the final effluent limitations for copper, lead, selenium, and zinc included in Order No. R4-2013-0021. The Regional Water Board indicated that the Discharger could request an extension of this TSO if sufficient justification was provided.
10. Since the original issuance of this TSO, the Discharger has met or improved upon the established schedule and tasks. The Discharger completed all Phase 1 improvements as required and the additional erosion control measures originally proposed as the Phase 2 activities. However, during an intense rainfall event in February 2014, the Discharger discovered that the implemented activities are not

sufficient to achieve compliance with the final effluent limitations for copper, lead, selenium, and zinc in Order No. R4-2013-0021.

11. The Discharger believes that a change in focus from source control and erosion control to the implementation of storm water treatment systems is required. The first rented storm water treatment systems (which included a self-priming pump, two 18,000-gallon weir tanks, a booster pump, a bag filter unit, and a flowmeter) were in place for discharges that occurred in December 2014 and January 2015. In October 2015, this system, as well as a rental system provided by Baker Tanks with a different set of treatment agents and filter polish technology, were installed in the field and used to treat discharges in January and March 2016. Initial indications during the limited testing period (over 1.5 years with less than 4 discharges) have provided evidence the treatment systems utilizing the appropriate treatment technologies will likely result in full compliance. Therefore, the Discharger proposes to install permanent storm water treatment systems and testing of the systems as the Phase 3 activities.
12. Since the original issuance of this TSO on February 7, 2013, the average number of discharges per year from the basins is slightly less than 2 per year. Due to the infrequent discharges from the basins, in order to complete the design, collect a sufficient number of samples to validate the reliability of the selected treatment system during storm conditions, and complete final installation, the Discharger requested a five year extension of this TSO on June 13, 2016. The Discharger indicated that the additional time would ideally provide approximately 10 discharge events from each basin for the determination and testing of the selected treatment system and the optimization of the operation parameters for each treatment unit. This TSO amendment provides one-and-a-half years for the initial implementation of the design and installation of the storm water treatment systems. The limited one-and-a-half year extension in this TSO amendment provides a compliance schedule which terminates on February 7, 2018, and it does not exceed the 5 year time period stipulated in Water Code section 13385. As per the Discharger, additional time may be required beyond that date. In that case, the Discharger will make a request for a new TSO and provide the required information to support the request.
13. Section 13300 of the California Water Code states:

“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”
14. The Discharger cannot consistently achieve compliance with the final effluent limitations for copper, lead, selenium, and zinc in Order No. R4-2013-0021. Despite

efforts, the Discharger's implemented improvements to date are not sufficient to achieve full compliance with the effluent limitations in Order No. R4-2013-0021. Accordingly, pursuant to Water Code section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board.

15. Water Code section 13385, subdivisions (h) and (i), require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met.*" (emphasis added).
16. This TSO establishes interim effluent limitations for copper, lead, selenium, and zinc based on performance. This TSO amendment provides the required time for the Discharger to investigate and implement new Phase 3 activities that include the installation of storm water treatment systems to bring the Inglewood Oil Field into compliance with the final effluent limitations. The established time schedule is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of control measures that are necessary to comply with the final effluent limitations for these pollutants.
17. Water Code section 13385, subdivision (j)(3)(C), states that the time schedule may not exceed five years in length. This TSO does not exceed five years from the date of original issuance. This TSO amendment provides one-and-a half years to implement the initial stage of the Phase 3 activities. If the Phase 3 activities, including the design, testing, optimization, and installation of the treatment systems, cannot be completed during the term of this TSO, the Discharger may request an extension of the period of this TSO. Following a public hearing, and upon a showing that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the final effluent limitations, the Regional Water Board may extend the time schedule for one additional period not exceeding five years in length, if the Discharger demonstrates that the additional time is necessary to comply with the final effluent limitations pursuant to Water Code section 13385, subdivision (j)(3)(C)(II). The total time schedule shall not exceed 10 years in length.
18. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both interim effluent limitations for copper, lead, selenium, and zinc and actions and milestones leading to compliance with the final effluent limitations for these pollutants.

- 19.A TSO is appropriate in these circumstances in order to accommodate the Discharger's investigation, design, and installation of storm water treatment systems at the Facility. Further, the temporary copper, lead, selenium, and zinc exceedances allowed by this TSO are in the public interest given the significant environmental benefits associated with promptly achieving compliance with the final effluent limitations for these pollutants.
20. Pursuant to Water Code section 13385(j)(3), full compliance with the requirements of this TSO exempts the Discharger from mandatory minimum penalties only for violations of the following final effluent limitations: copper, lead, selenium, and zinc at Discharge Point No. 001; copper at Discharge Point No. 002; copper, lead, and selenium at Discharge Point No. 003; selenium at Discharge Point No. 004; copper and selenium at Discharge Point No. 005; and copper, lead, selenium and zinc at Discharge Point No. 006, as prescribed in Order No. R4-2013-0022. Water Code section 13385(j)(3) also requires the Discharger to prepare and implement a pollution prevention plan pursuant to Water Code section 13263.3. Therefore, a pollution prevention plan will be necessary for copper, lead, selenium and zinc.
21. The Regional Water Board has notified the Discharger, interested agencies, and interested persons of its intent to amend this TSO concerning compliance with waste discharge requirements and has provided them with an opportunity to submit written comments. The Regional Water Board considered all comments pertinent to this matter prior to amending this TSO.
22. The Regional Board may reopen this TSO at its discretion or at the request of the Discharger, if warranted.
23. Issuance and amendment of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with section 15321(a)(2), title 14 of the California Code of Regulations.
24. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to the California Water Code section 13300, the Freeport-McMoRan Oil & Gas, as owner and operator of the Inglewood Oil Field, shall comply with the requirements listed below to ensure compliance with the final effluent limitations for copper, lead, selenium, and zinc contained in Order No. R4-2013-0021:

1. Comply with the following interim effluent limitations, which shall be deemed effective from February 7, 2013 through February 7, 2018:

| Constituent | Units | Interim Effluent Limitations Daily Maximum ^[1] |
|--|------------------------|--|
| Discharge Point No. 001 (LAI Last Chance Basin) | | |
| Copper, Total Recoverable (All-weather) | µg/L | 41 ^[1] |
| | lbs/day ^[2] | 0.23 |
| Lead, Total Recoverable (All-weather) | µg/L | 26 ^[1] |
| | lbs/day ^[2] | 0.14 |
| Selenium, Total Recoverable (All-weather) | µg/L | 29 ^[1] |
| | lbs/day ^[2] | 0.16 |
| Zinc, Total Recoverable (All-weather) | µg/L | 420 ^[1] |
| | lbs/day ^[2] | 2.33 |
| Discharge Point No. 002 (Dabney-Lloyd Basin) | | |
| Copper, Total Recoverable (Wet-weather) ^[3] | µg/L | 30 ^[1] |
| | lbs/day ^[2] | 0.77 |
| Discharge Point No. 003 (Stocker Basin) | | |
| Copper, Total Recoverable (All-weather) | µg/L | 30 ^[1] |
| | lbs/day ^[2] | 0.16 |
| Lead, Total Recoverable (All-weather) | µg/L | 23 ^[1] |
| | lbs/day ^[2] | 0.12 |
| Selenium, Total Recoverable (All-weather) | µg/L | 46 ^[1] |
| | lbs/day ^[2] | 0.24 |
| Discharge Point No. 004 (Vickers I Basin) | | |
| Selenium, Total Recoverable (Dry-weather and Wet-weather) | µg/L | 26 ^[1] |
| | lbs/day ^[2] | 0.34 |
| Discharge Point No. 005 (Lower Vickers II Basin) | | |
| Copper, Total Recoverable (Wet-weather) ^[3] | µg/L | 33 ^[1] |
| | lbs/day ^[2] | 0.28 |
| Selenium, Total Recoverable (Dry-weather and Wet-weather) | µg/L | 10 ^[1] |
| | lbs/day ^[2] | 0.084 |

| Constituent | Units | Interim Effluent Limitations Daily Maximum ^[1] |
|---|------------------------|---|
| Discharge Point No. 006 (Upper Vickers II Basin) | | |
| Copper, Total Recoverable (Dry-weather and Wet-weather) | µg/L | 61 ^[1] |
| | lbs/day ^[2] | 0.31 |
| Lead, Total Recoverable (Dry-weather) ^[3] | µg/L | 49 ^[1] |
| | lbs/day ^[2] | 0.25 |
| Selenium, Total Recoverable (Dry-weather and Wet-weather) | µg/L | 25 ^[1] |
| | lbs/day ^[2] | 0.13 |
| Zinc, Total Recoverable (Wet-weather) ^[3] | µg/L | 190 ^[1] |
| | lbs/day ^[2] | 0.95 |

^[1] Interim effluent limitations were established as the 99 percentile of the individual basin's monitoring data obtained between October 2004 and March 2012.

^[2] The mass limitations in lbs/day were calculated using the concentration limits and the maximum flow rate of the individual basin as shown in Finding 3.

^[3] Dry-weather interim effluent limitations are applicable when the maximum daily flow in Ballona Creek is less than 40 cubic feet per second (cfs). Wet-weather interim effluent limitations are applicable when the maximum daily flow in Ballona Creek is equal to or greater than 40 cfs. Flow data can be obtained by contacting Mr. Arthur Gotingco (Tel: 626-458-6379; Email: agoting@dpw.lacounty.gov) at LACDPW.

2. Comply with the tasks and schedule as stipulated below:

| Task | Deadline | Status or Completion Date |
|--|----------------|---|
| Phase 1 and Phase 2 Activities: | | |
| Work Plan for Sampling Methods and Non Rainfall Discharge Management | April 15, 2013 | April 12, 2013 |
| Implement Non Rainfall Discharge Management and Improved Storm Water Sampling and Analysis | May 15, 2013 | Improved storm water sampling and analysis was implemented for the first discharge on 02/28/14. One non rainfall discharge occurred on 01/26/15 after the effective date of the TSO, 02/07/13. Sampling of this event followed the improved storm water sampling and analysis plan. |

| Task | Deadline | Status or Completion Date |
|--|--|--|
| Verification Sampling | February 15, 2013 – September 15, 2016 | Storm events generating discharges occurred on 02/28/14; 12/12/14; 12/16/14; 01/26/15; 09/15/15; 1/6/16; 3/7/16; 3/14/16; Status: Ongoing |
| Prepare Work Plan for Discharge Structure Modification, as necessary | April 15, 2015 | April 14, 2015 |
| Implement Work Plan for Discharge Structure Modification, as necessary | April 15, 2016 | The modification of the discharge outfall was initially tested in the December 2014 discharge and subsequently in the January 2015 discharge. |
| Non Rainfall Discharge Management | September 15, 2016 | One non rainfall discharge occurred in January 2015. No non rainfall discharges occurred thereafter. Status: Ongoing |
| Evaluation of Areas of Potential Metals Accumulation | September 15, 2016 | Completed in October 2013. |
| Submit Report on Results of Implementation and Evaluation of Selected Measures including BMPs to Reduce Erosion and Sedimentation in Phase 2 Activities completed by September 15, 2016. | December 15, 2016 | Report is on schedule to be completed by the deadline. Data indicated Phase 1 and Phase 2 changes in the sampling protocol, storm water management and the implementation of BMPs will not result in compliance with the final effluent limitations. |
| Phase 3 Activities: | | |
| Installation of the 2016/2017 Storm Water Treatment Systems at All Six Basins based on Information from Previous Investigations and Studies. | October 1, 2016 | Ongoing |
| Prepare Site Plans, Piping and Design Diagrams for Upgraded Storm Water Treatment Systems to be Implemented in 2017/2018 Rainy Season. | August 15, 2017 | -- |

| Task | Deadline | Status or Completion Date |
|---|--|---------------------------|
| Installation of the 2017/2018 Modified Storm Water Treatment Systems in All Six Basins. | October 1, 2017 | -- |
| Verification Sampling/Testing of Storm Water Treatment Systems during Discharge Events. Submit Summary of Results in Semiannual Reports. | September 16, 2016 – February 7, 2018 | -- |
| Development of Chemical Products Using Bench Scale Testing Specific to Flocculation of Inglewood Oil Field Sediment. Submit Summary of Results in Semiannual Reports. | September 16, 2016 – June 18, 2017 and by February 7, 2018, if needed | -- |
| Evaluation of Chemical Flocculation in the Field. Submit Results in Semiannual Reports. | During/After Discharge Events (September 16, 2016 to February 7, 2018) | -- |
| Determination of Optimum Filter Media Size. Submit Results in Semiannual Reports. | During/After Discharge Events (September 16, 2016 to February 7, 2018) | |
| Evaluation and Optimization of Treatment System Design. Submit Results in Semiannual Reports. | During/After Discharge Events (September 16, 2016 to February 7, 2018) | -- |
| Submit Semiannual Reports. | February 7 and August 15 of each year | Ongoing |

3. Achieve full compliance with the final effluent limitations for copper, lead, selenium, and zinc in Order No. R4-2013-0021 no later than February 8, 2018.
4. Submit semiannual progress reports of efforts taken towards compliance with the final effluent limitations. The reports shall summarize the progress to date, activities conducted during the reporting period, and the activities planned for the upcoming period. Each report shall be submitted to this Regional Water Board by February 7th and August 15th for the second half of the previous reporting year and the first half of the reporting year, respectively, and include milestones completed and any new pertinent updates. The first semiannual progress report for this TSO amendment is due on February 7, 2017.

5. Submit an updated Pollution Prevention Plan (PPP) workplan, with the time schedule for implementation, for approval of the Executive Officer by January 31, 2017, pursuant to California Water Code section 13263.3.
6. Submit a final report on the results of the implementation and evaluation of the selected actions/measures by June 15, 2018. The report shall include: a) a description of the actions/measures selected, b) the monitoring data collected after the implementation of the selected actions/measures including treatment process, and c) an evaluation of the effectiveness of the selected actions/ measures.
7. All technical and monitoring reports required under this TSO are required pursuant to California Water Code sections 13267 and 13383. The burdens, including costs, of these reports bear a reasonable relationship to the needs for the reports and the benefits to be obtained from the reports. The required reports will include information that is necessary for the Regional Board to determine compliance with this TSO No. R4-2013-0022 and Order No. R4-2013-0021, including information to demonstrate compliance with the interim effluent limitations and with the required tasks.
8. Any person signing a document submitted under this TSO shall make the following certification:

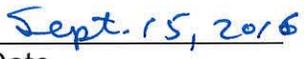
“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
9. If the Discharger fails to comply with any provisions of this TSO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate administrative enforcement action pursuant, but not limited to, Water Code sections 13350 and 13385. The Regional Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.
10. All other provisions of NPDES Order No. R4-2013-0021 not in conflict with this TSO are in full force and effect.
11. The Regional Water Board may reopen this TSO at its discretion or at the request of the Discharger or interested person, if warranted. Lack of progress towards compliance with this TSO may be cause for the Regional Water Board to modify the conditions of this TSO.

12. This Amended Time Schedule Order becomes effectively immediately upon issuance and it expires on February 7, 2018.

IT IS SO ORDERED:



Samuel Unger, P.E.
Executive Officer



Date