

Response to Comments

Tesoro Los Angeles Refinery – Carson Operations Tentative Order No. R4-2015-XXXX NPDES Permit No. CA0000680, CI No. 5424

#	Comment Summary	Response	Action Taken
Tesoro Refining & Marketing Company LLC – Letter dated September 30, 2014			
1	<p>The tentative Order (TO) uses reasonable potential analysis (RPA) to impose effluent limits for non-TMDL constituents including cadmium, methylene chloride, pentachlorophenol, fluoranthene, aldrin, and heptachlor epoxide; however, a RPA does not support effluent limits for these constituents. Additionally, there are no applicable water quality objectives for methylene blue active substances ("MBAS"), sulfides, settleable solids, turbidity or TPH; therefore, effluent limits are not warranted for these constituents.</p> <p>If these effluent limits remain in the permit, which they should not, Tesoro may not be able to immediately comply with some of the limits, namely including copper, lead, zinc, nickel, cyanide, bis(2-ethylhexyl)phthalate, settleable solids, and BOD. Interim effluent limits and a compliance schedule should be established either in the TO or in a Time Schedule Order ("ISO"). A TSO is also needed where compliance is uncertain, as is the case for the organic pollutants, PAHs, aldrin, heptachlor epoxide and total petroleum hydrocarbons ("TPH").</p>	<p>Tesoro Refining and Marketing Company LLC owns and operates the Los Angeles Refinery – Carson Operations (Carson Refinery), a petroleum oil refinery which processes crude to produce gasoline, diesel fuel, jet fuel, sulfur, coke, and liquid petroleum gas(LPG). Dominguez Channel Estuary, traverses or pass through the refinery. The Facility discharges into Dominguez Channel Estuary within the Los Angeles/Long Beach Harbor watershed. The 2010 State Water Board California 303 (d) list classifies the Dominguez Channel Estuary as impaired. The pollutants of concern in the Estuary include: cadmium, chromium, lead, zinc, polycyclic aromatic hydrocarbons (PAHs), dichlorodiphenyltrichloroethane (DDT) and polychlorinated biphenyls (PCBs). The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the <i>TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters</i> (Harbor Toxics TMDL) (Resolution No. R11-008). Any of the targeted pollutants discharged to Dominguez Channel estuary will further impair the receiving water body.</p>	<p>A TSO with interim limits for certain pollutants for low volume waste, has been drafted.</p>

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		<p>Cadmium has a TMDL sediment allocation limit included in the Harbor Toxics TMDL. Elevated concentrations of cadmium in the effluent discharged from Carson Refinery will result in increases in the contaminated concentration in the sediment which is already impaired. Therefore, performance based limits are given for cadmium in the discharged effluent in the proposed permit. Limits for methylene chloride, methylene blue activated substances (MBAS), pentachlorophenol, fluoranthene, aldrin, and heptachlor epoxide were included in the current permit (Order No. R4-2007-0015) and are included in the proposed permit. MBAS has a water quality objective included in the Basin Plan. Higher MBAS monitoring results than the given limit indicate the presence of surfactant, which can disturb the surface tension which affects insects and can affect gills in aquatic life.</p> <p>Based on the monitoring results of three low volume waste (LVW) discharges in 2007 and 2008, a Time Schedule Order (TSO) has been drafted at the request of Discharger with interim limits for aldrin, cyanide, chlordane, total PCBs, benzo(a)anthracene, benzo(a)pyrene, bis(2-ethylhexyl)phthalate chrysene, copper, dieldrin, and heptachlorepoxyde. Discharger exceeded the limits specified in the proposed NPDES permit or the detection limits were elevated relative to the proposed final effluent limits for the pollutants that have interim limits. The last process wastewater discharge occurred in 1995, and process wastewater comingled with</p>	

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		<p>stormwater discharges occurred on Feb. 25, 2008 from two Outfalls. Therefore, no interim limits are included in the TSO for process wastewater, comingled with stormwater, and boiler blowdown. The interim limits included in the TSO are for low volume waste from Discharge Outfalls 001, 002, 003, 004, and 005.</p> <p>Total petroleum hydrocarbons (TPH) include all fuels: gasoline, diesel and waste oil. These fraction of TPH are routinely associated with refining operations. Stormwater can come in contact with the TPH products produced and stored on-site, which are chemicals of concern. An effluent limitation based on best professional judgment (BPJ) for TPH was included in the tentative permit issued July 15, 2014. After further consideration since there is no data available the new tentative will require monitoring for TPH to determine if reasonable potential exists. TPH fractions will float in water and form thin surface films. Some of the TPH compounds such as benzene, toluene, and xylene can affect the human central nervous system. Since there is no data for TPH the limitation has been removed, but the monitoring is required.</p> <p>The presence of settleable solids can adversely effect the beneficial uses irrespective of the categorical source. US EPA issued a document entitled Quality Criteria for Water 1986 (Gold Book) as per the requirements of Section 304 (a) (1) of the Clean Water Act (33</p>	<p>Removed effluent limit for TPH, but retained monitoring to acquire data.</p>

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		<p>U.S.C.1314 (a) (1) for the Environmental Protection Agency to publish and periodically update ambient water quality criteria. Included in the document is an assessment of solids (suspended, settleable) and turbidity. The effluent limitations for settleable solids and turbidity were established in the current Order (Order No. R4-2007-0015) and are included in the proposed permit. In issuing the previous Order, the Regional Water Board appropriately considered the treatment technology of settling. The Fact Sheet reflects that the effluent limitations for settable solids and turbidity are based on the historical BPJ-based effluent limitations in the current Order and remains applicable to the Facility. In addition, because these effluent limitations are not new to the Facility and have been applicable for more than 5 years. Compliance with these limitations does not require changes in operation or additional costs or equipment than previously required, and the previous determination that the requirements of 40 CFR 125.3(d) have been met remain applicable.</p> <p>Elevated levels of suspended solids also increase the turbidity of the water. Turbid water interferes with recreational use and with aesthetic enjoyment of the water body. The effects of elevated suspended solids as documented in the rationale included in the Gold Book included a study¹ that documents a</p>	

¹ Gammon, J. R., 1970. The effect of inorganic sediment on stream biota. Environmental Protection Agency. Water Poll. Cont. Res. Series, 18050 DWC 12/70, USGPO, Washington, D. C.

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		situation where downstream from the discharge from a rock quarry, inert suspended solids were increased to 80 mg/L, and the density of microinvertebrates decreased by 60 percent and in areas of sediment accumulation benthic invertebrate populations also decreased by 60 percent regardless of the suspended solid concentration. Increases in stream suspended solids caused smothering of bottom invertebrates.	
2	Tesoro believes that current data are insufficient and inappropriate to support effluent limits for any pollutant for the commingled process water and stormwater waste stream and most pollutants for the LVW streams. Normally, the last three or five years of data are needed for proper characterization. But because Tesoro has successfully limited discharges under the permit, the only available data for LVW discharges under the permit are from 2007 and 2008, more than five years ago. The last discharge of process water commingled with stormwater was in 1995.	Limits associated with effluent limit guidelines (ELGs) are applicable to all discharges that fit into the specified category. Limits associated with effective TMDLs are also appropriate whether data or reasonable potential exists. If enough data is not available to conduct reasonable potential, then the limits in the current or existing permit are included in the proposed permit.	None required.
3	The reasons for the lack of data are tied to the Refinery's successful compliance strategy to minimize discharges. The Refinery discharges infrequently and, for this reason alone, available data are insufficient to characterize the discharge and make a determination of reasonable potential. There are no available data for the process wastewater discharge and only two applicable data sets for the low volume waste discharge (as discussed in Attachment A). The data sets used by the Regional Board for the process wastewater discharge were from a storm event on February	<p>The operation description provided by the Discharger indicates there is no way to segregate the stormwater from process wastewater as they are treated in the same centralized wastewater treatment system. Limits are established to protect water quality objectives when discharges do occur.</p> <p>The limits for discharges from the Carson Refinery are either based on the limits that are in the existing permit (Order No. R4-2007-0015) or on the reasonable potential analysis</p>	A TSO issued for certain pollutants in the low volume waste discharges.

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	<p>25, 2008 and did not include any process wastewater. They are not representative of the discharge and should not have been used. There are some reasonably representative data with regard to the LVW waste stream, but not enough to sufficiently characterize that stream. Because it may be difficult to collect representative data, the Regional Water Board could include performance goals or triggers that, if exceeded, could require additional action on the part of Tesoro. For example, additional source investigation or data collection within the Facility's waste streams could be considered.</p> <p>Further, in Tesoro's case, less than 2,000 gallons of LVW under the NPDES permit have been discharged in the last two events in 2008, as compared with the permitted limit of 45,000 gallons. Many of the effluent limits are based on waste load allocations in the Harbor Toxics TMDL (e.g., copper, zinc, lead, DDT, PCBs, chlordane, dieldrin). Because of the very low volumes discharged, the mass loading to the Dominguez Channel is likely far lower than the WLA in the TMDL. To ensure that WLAs are met, mass-based limits would be more appropriate for the Facility for LVW.</p>	<p>conducted with three available discharge event results. Since, these discharges occurred and during normal operating procedures this type of discharge will occur, it is prudent to include this data in the analysis and evaluation of potential discharges.</p>	
4	<p>Tesoro requests that the Regional Board remove from the TO effluent limits for the stream of process water commingled with stormwater and that a requirement to develop and implement a monitoring program to characterize the waste stream be included instead. For the <u>Low Volume Waste</u>, effluent limits should be removed or</p>	<p>The ROWD submitted by Tesoro describes the facility operation and the waste streams that may be discharged from the facility. This information along with federal and state guidelines on NPDES permitting has been used to develop the limits included in the permit. Only three discharge events occurred</p>	None required.

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	<p><u>replaced with either mass-based effluent limits to ensure compliance with the TMDL or performance goals along with a requirement to develop a monitoring program.</u></p>	<p>during the tenure of Order No. R4-2007-0015. Therefore, in many instances staff has retained the limits included in that Order to ensure protection of the beneficial uses of the Dominguez Channel Estuary and to ensure that there are no backsliding issues.</p> <p>The discharge which is characterized as low volume water is actually a mixture of different low volume streams (steam condensate, atmospheric condensate, non-contaminated service water, air conditioning condensate, and fire system water). The limits developed for process wastewater comingled with stormwater were developed using the data reported in 2008 from PS003 and PS004. Staff concurs that the data was reported as primarily stormwater but the current facility operational procedure mixes the stormwater with the process wastewater and boiler blowdown in the centralized treatment system prior to discharge. The limits included in the tentative Order are consistent with those included in Order No. R4-2007-0015, the current Order, with the exception of the limits that have changed based on the Harbor Toxics TMDL, and new limits included based on the new reasonable potential analysis.</p>	
5	<p>The TO proposes effluent limitations for a suite of additional constituents. Despite the very limited data that are available, the Regional Water Board performed two RPAs for the refinery's two waste streams: low volume wastes and process wastewater comingled with stormwater from oily water drains. The datasets used in the RPAs are</p>	<p>Regional Board staff utilized the historical data set submitted during the last two permit cycles by the previous owner and the data included in the ROWD. Staff utilized all of the available data to evaluate the quality of potential discharges from the facility.</p>	None required.

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	<p>discussed on page F-35 of the TO. These data sets do not fully match the data submitted by Tesoro as part of its permit renewal documentation, the Report of Waste Discharge or ROWD. Setting aside the caveat about the discrepancy in the datasets, our evaluation of the RPA and effluent limits for low volume wastes is provided in Attachment A. As noted above, there are no data that are representative of the process wastewater commingled with stormwater and these effluent limits should be eliminated.</p>	<p>Dominguez Channel Estuary which is impaired passes through the Carson Refinery and protection of beneficial uses is vital. Therefore, permit limitations for both process wastewater and low volume waste are included.</p> <p>The standard protocol is to collect and treat wastewater and stormwater at the centralized wastewater treatment system. Hence, wastewater and stormwater is in the centralized wastewater treatment system. During rain events the flow from the centralized wastewater treatment system is diverted to three storage tanks. When the tanks exceed the capacity, the comingled wastewater and stormwater is diverted to retention basins. When required, the collected wastewater and stormwater is discharged to the Dominguez Channel Estuary (Order R4-2007-0015, Page F-6). Hence, discharges to Dominguez Channel Estuary will be composed of low volume wastes mixed with stormwater or process wastewater mixed with stormwater.</p>	
6	<p>Constituents subject to the Harbor Toxics TMDL that show no RP are lead; organic compounds chlordane, dieldrin, 4,4'-DDT, and total PCBs; and PAHs benzo(a)pyrene, benzo(a)anthracene, chrysene, and pyrene. None of the organics have been detected in the effluent or the receiving water and lead was never detected above the WLA. Therefore, there is no reasonable potential to cause or contribute to a water quality exceedance or to include effluent limitations for these constituents.</p>	<p>Federal regulations and USEPA guidance require the NPDES permit to implement the waste load allocations (WLAs) in the TMDL. The current protocol for implementation of TMDLs requires that if there is an approved TMDL and the water body has not been delisted for the targeted pollutants; the WLAs be translated into permit limits and included in the proposed permit. Hence, whether or not Carson Refinery is discharging the constituents targeted by the Harbor Toxics TMDL since the facility discharges to the affected receiving</p>	None required.

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		<p>water bodies, the permit will include limits for the constituents. Reasonable potential analysis does not have to be done for pollutants with a TMDL, as indicated in section 1.3 Determination of Priority Pollutants Requiring Water Quality Based Effluent Limitations (WQBELs) of the SIP: The RWQCB shall conduct the analysis in this section for each priority pollutant with an applicable criterion or objective, excluding priority pollutants for which a Total Maximum Daily Load (TMDL) has been developed (emphasis added), to determine if a water quality-based effluent limitation is required in the discharger's permit."</p>	
7	<p>Constituents not subject to a TMDL that showed no RP included cadmium, methylene chloride, pentachlorophenol, fluoranthene, aldrin, heptachloroepoxide. Effluent limits are not warranted for these constituents.</p>	<p>Cadmium is included in the Harbor Toxics TMDL constituent list. The TMDL includes a concentration based sediment WLA which is applicable to Dominguez Channel Estuary. The discussed constituents not subject to a TMDL had limits in the existing permit for five years and are included in the proposed tentative permit, based on BPJ.</p> <p>The low volume waste did not demonstrate statistical reasonable potential for methylene chloride pentachlorophenol, and fluoranthene. However, effluent limits for these pollutants have been retained based on Best Professional Judgment and the limited data set available for the low volume waste. The detection limits for aldrin and heptachlor epoxide were elevated relative to effluent limitations in the current order and in the proposed order. Hence, the effluent limits for these constituents have been</p>	None required.

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8	<p>There are no applicable water quality objectives for MBAS, sulfides, settleable solids, turbidity or TPH and, therefore, effluent limits are not warranted; at the very least, the TO should explain the rationale for these limits' numerical values. While not explicitly stated as the reason in the TO, the nature of the activities being conducted at the site is not a justification for including effluent limits. The presence of a constituent on site in no way correlates with its potential impact or the likelihood that it will enter receiving waters. The only justification is the potential to adversely impact beneficial uses either based on the exceedance of a water quality objective or another substantive line of evidence.</p>	<p>retained as well.</p> <p>See Response to Comment 1 above. Limits for sulfides, settleable solids, turbidity, and MBAS were included in Order No. R4-2007-0015. These are all Basin Plan water quality objectives and the limits included are based on the Basin Plan. All discharges to waters of the State must comply with the Basin Plan water quality objectives. The limited data sets available (three points) yielded exceedances for the objectives for a number of these constituents.</p> <p>The TPH limit was in the tentative Order issued July 15, 2014. Based on facility operations, similar facilities (including tank farms that store petroleum products) TPH is a chemical of concern. However, since there is no data available for TPH, the permit will require monitoring but no effluent limit for TPH is included.</p>	<p>None required.</p> <p>The TPH limit has been deleted but the monitoring requirements have been retained.</p>
9	<p>Imposing effluent limits without RP is an attempt to regulate potential discharges. The Regional Board, however, is not authorized to issue permits for potential discharges, only actual discharges to navigable waters.⁶ Before issuing the TO as an NPDES permit, the Regional Board must establish an addition of pollutants by Tesoro from a point source at the Refinery. Sufficient data do not exist to do so. Sampling in 2007 and 2008 showed no detection of many of the pollutants the TO seeks to regulate, specifically DDT, PCBs, chlordane, dieldrin, and PAHs, targets for which limits were established by the Harbor Toxics TMDL. The 2007 and 2008 data showed some detection of</p>	<p>A reasonable potential analysis is used to determine whether or not pollutants "are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any [s]tate water quality standard." 40 CFR §122.44(d)(1)(i). During the development of the permit, if the permitting authority determines that the discharger has "reasonable potential," then the permit must include a water quality-based effluent limit (WQBEL) for the discharge. 40 CFR 122.44(d)(1)(iii) – (vi). In cases where an EPA-approved TMDL includes a WLA for a point source, either specifically or within a</p>	<p>None required.</p>

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	<p>other pollutants in the TO, but the data are more than five years old and are not representative of current plant conditions. Further, the Refinery's collection of water may not constitute a point source at all because it is <i>reasonably unlikely</i> that the Refinery would channel or convey pollutants to navigable waters. The Facility discharges only during emergencies or significant storm events and after treatment has occurred. There is little basis to believe that particulates discharged from the Refinery would reach the sediment bed of the receiving water; rather, because treatment occurs at the Facility prior to discharge under the NPDES permit, the non-settleable solids that could be discharged would likely be carried through the receiving waters without settling to the sediment bed within the Dominguez Channel Estuary. This is particularly true because discharges will occur only during emergencies or large storm events. As detailed above, there are also no data to suggest that discharges from the Facility would cause or contribute to an exceedance of water quality objectives. Until there are reliable and sufficient data to show a reasonable likelihood that the Refinery's conveyances will deposit pollutants in the Channel and contribute to an exceedance of water quality standards, Tesoro cannot be subject to the TO for any pollutant that lacks RP to cause or contribute to a violation of a water quality objective.</p>	<p>categorical allocation, the permitting authority may make a reasonable potential determination based directly on the fact that an allocation has been established and assigned to the point source. In this circumstance, it is unnecessary to conduct a separate quantitative reasonable potential analysis during the development of the NPDES permit for that point source,</p> <p>Dominguez Channel Estuary is impaired and it passes though the Carson Refinery. Limitations in the proposed permit based on TMDLs, RPA, and from the existing permit are established for protection of the receiving water body.</p> <p>USEPA and the State of California have developed regulations and guidance for National Pollutant Discharge Elimination System permitting. Staff utilized available regulations, policy, and guidance to develop the tentative permit. That guidance enumerates the methodology for developing effluent limits in NPDES permits.</p> <p>As stated in Response to Comment 6, pollutants subject to WLAs in TMDLs must include effluent limitations based on the WLAs. The pollutants with WLAs include copper, lead, zinc, PAHs benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene], chlordane, 4,4'-DDT, dieldrin, and total PCBs.</p>	
10	<p><i>For all the above reasons, Tesoro requests that for constituents assigned effluent limits with which Tesoro may not be able to immediately comply -</i></p>	<p>Effluent limits for copper, zinc, nickel, and settleable solids were included in Order No. R4-2007-0015 for low volume waste. Copper,</p>	<p>A Compliance schedule with interim limits for</p>

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	<p><i>copper, lead, zinc, nickel, cyanide, bis(2-ethylhexyl)phthalate, and settleable solids -interim effluent limits and a compliance schedule should be established either in the TO or in a TSO. In lieu of effluent limits, performance goals or triggers could be established in the permit. Interim limits are discussed in more detail in Attachment A. Due to the lack of data, it is not possible to determine a statistically valid value for these interim limits. For TMDL metals (i.e., copper, lead and zinc), interim limits should be consistent with the interim WLAs in Section Lb. of R11-008 (p. 10). For the organic constituents, the detection limit plus 10% could be used.</i></p>	<p>zinc, cyanide, bis(2-ethylhexyl)phthalate, and settleable solids had effluent limits for the process wastewater comingled with stormwater waste streams. Staff will include interim limits and a compliance schedule in the revised tentative Order for only the TMDL constituents; chlordane, dieldrin, total PCBs, and 4,4'-DDT. Settleable solids and nickel are not TMDL constituents and therefore are not eligible for inclusion in a compliance schedule within the permit.</p>	<p>TMDL constituents is included in the revised tentative.</p>
11	<p><i>Also, Tesoro does not know if the Refinery can comply with the proposed effluent limits for DDT, PCBs, chlordane, dieldrin, and PAHs because it has no data to evaluate compliance. Accordingly, the Refinery is requesting a TSO as explained in our August 6, 2014 letter and our letters submitted concurrently with these comments. Further, Tesoro believes a TSO should provide time for Tesoro to transition out of the NPDES permit for LVW because each of the LVW streams appears eligible for discharge under the IGP.</i></p>	<p>Pursuant to 303(c) of the Clean Water Act (CWA) USEPA authorized compliance schedules in the NPDES permit for certain TMDL constituents that have WLAs. In the 303(c) letter USEPA authorized compliance schedules in NPDES permits for Non-MS4 stormwater dischargers for copper, lead, zinc, DDT, dieldrin, total PCBs, chlordane, and pyrene (applicable for process wastewater comingled with stormwater discharges from the Carson Refinery) and for other non-stormwater discharges for copper, lead, and zinc (applicable to low volume waste).</p> <p>A compliance schedule is included in the revised tentative permit to give time for Carson Refinery to review and upgrade the existing storage, and wastewater treatment system to meet the final TMDL WLAs.</p> <p>The State Water Resources Control Board</p>	<p>Revised tentative includes compliance schedule with interim limits for TMDL constituents (chlordane, dieldrin, total PCBs, and 4,4'-DDT) authorized in the USEPA 303 (c) approval letter dated November 8, 2012.</p>

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		<p>Industrial General NPDES Permit No. CAS000001 (IGP) is applicable to stormwater only discharges. Both the process wastewater and low volume wastewater are commingled with other wastewater streams. The Carson Refinery does not qualify for enrollment under the IGP because of the variety of products produced and stored at the refinery, the nature of wastewater discharged, prior permit limit exceedances, and its close proximity to the impaired Dominguez Channel Estuary. The specified limits are based on RPA, TMDL based WLAs, and existing permit (Order No. R4-2007-0015) limits. Hence, a site specific permit with numeric limitations is the preferred mechanism to regulate discharges from the facility.</p>	
12	<p>Tesoro disagrees with the imposition of new immediately applicable effluent limits based on the Harbor Toxics TMDL because the TMDL that forms the legal basis of the new limits and monitoring duties was developed and based on a 20-year implementation schedule.</p>	<p>The proposed Order does not in any way modify or change the adopted Harbor Toxics TMDL. The TMDL contains a deadline of 20 years after adoption of the TMDL for compliance with the WLAs for all NPDES dischargers. The 20-year compliance schedule in the November 2012 Compliance Schedule Authorization represents the maximum amount of time that can be provided for facility upgrades; design development and implementation of treatment systems required to meet the final effluent limits. The TMDL also states "Regardless of the interim allocations below, permitted discharges shall ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the facility's treatment technologies existing at the time of permit</p>	<p>Incorporated interim limits for pollutants with WLAs in the Harbor Toxics TMDL as per the CWA 303 (c) approval from USEPA.</p>

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		<p>issuance, reissuance or modification.”</p> <p>Any TMDL-based compliance schedule in a permit must be as short as possible. (State Water Board’s Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits, section 6.c.ii.) Compliance schedules provided for any of the stakeholders in the Harbor Toxics TMDL must be justified with (1) a demonstration that they are unable to immediately comply with the final effluent limits translated from the final WLAs and (2) the compliance plan including the type of facility upgrades or operational changes required to come into compliance with the effluent limitations based on the final WLAs included in the TMDL.</p> <p>A compliance schedule is included in the revised proposed permit with interim limits for the TMDL listed constituents where the Discharger is able to demonstrate an inability to immediately comply with the final effluent limits that are based on the WLAs included in the TMDL.</p>	
13	<p>Effluent limitations for metals. The TO includes effluent limits for copper, zinc, and lead based on the Harbor Toxics TMDL. Section I addresses Tesoro's requests with regard to the metals.</p>	<p>Response to Comments 1 and 6 provide the basis for including numeric effluent limits for the pollutants addressed in the Harbor Toxics TMDL.</p>	<p>None required.</p>
14	<p>Effluent limitations for organic pollutants. The TO includes new numeric water quality based effluent limitations ("WQBELs") for multiple organic pollutants, including DDT, PCBs, chlordane, and dieldrin, which are based on the Harbor Toxics TMDL. (<i>Id.</i> at 8 and 10 and F-50</p>	<p>See Response to Comment 1 and 6 above.</p>	<p>None required.</p>

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	through F-53.)		
15	<p>The Harbor Toxics TMDL makes clear that the Harbor waters and sediment are contaminated with primarily legacy pollutants, including DDT and PCBs. These were discharged long ago and now act like "grasshopper pollutants" that, according to EPA, are emitted from the original source, transported some distance, and deposited. From there, a portion is re-emitted, transported further, and redeposited. (EPA Guidance, "Frequently Asked Questions About Atmospheric Deposition," (EPA No. 453, September 2001) at 5.) Water surfaces can themselves be a source of atmospheric deposition. <u>In fact, the TMDL found that the Harbor waters are a source of PCBs to the atmosphere, and Harbor sediments are a source of PCBs to the Harbor waters.</u> (TMDL Staff Report, Appendix III at p. III-46.)⁸ Thus, the Harbor waters are a source of PCBs in the atmosphere, and as it rains, the runoff picks up the chemicals from atmospheric deposition and routes them through Facility outfalls. The nature of DDT is the same. (See also May 5, 2011 Harbor Toxics TMDL Staff Report at 44, 52, 57, 103, identifying the primary sources as nonpoint source from legacy sources).⁹</p> <p>Thus, the sources of pollutants to the Harbor are clearly historic, legacy sources, and the Refinery is not one of them. To the best of our knowledge, the Refinery did not use or discharge DDT, PCBs, chlordane or dieldrin. There have been no PCBs, chlordane, dieldrin or DDT detected at all in discharges through Facility outfalls, based on</p>	<p>Staff agrees that PCBs and DDTs are legacy pollutants for the most part. They remain present in the environment, bound to fine-grained particles. When these particles become waterborne, the chemicals are often transported to other new locations. Urban runoff and rainfall higher in the watersheds mobilize the particles, which are then washed into storm drains and channels that discharge to the Dominguez Channel and greater Harbor waters which includes Dominguez Channel Estuary.</p> <p>The Harbor Toxics TMDL is a Basin Plan amendment that has been approved by the Regional Water Board, State Water Board, Office of Administrative Law, and USEPA. During the development of the TMDL air deposition of pollutants was considered (see page 52 of the Staff Report for the Harbor Toxics TMDL, May 5, 2011). After consideration of the pollutant sources the WLAs and load allocations (LAs) were developed for the permittees. Carson Refinery is one of the individual NPDES permittees considered. Hence, the numeric effluent limits that are developed based on the WLAs included in the TMDL are applicable to the Facility. Staff has implemented the TMDL into the permit proposed for Carson Refinery in a manner consistent with its implementation at other facilities discharging to the receiving water bodies addressed by the Harbor Toxics TMDL. The Carson Refinery collects</p>	None required.

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	<p>2007 and 2008 samples. Thus, <u>there is not a single data point that shows the Facility even discharges these constituents from its processes to receiving waters.</u> The Facility's discharge analyses specifically included organic pollutants and PAHs, none of which has been detected. The TO, therefore, should not have effluent limits for undetected pollutants.</p>	<p>stormwater runoff at its site that may contain pollutants, including DDT, PCBs, chlordane, and dieldrin, and discharges that stormwater mixed with wastewater generated on the site to waters of the U.S.</p> <p>“In cases where an EPA-approved TMDL includes a WLA for a point source, either specifically or within a categorical allocation, the permitting authority may make a reasonable potential determination based directly on the fact that an allocation has been established and assigned to the point source.” Since the TMDL addresses these pollutants, the proposed Order included effluent limits..</p> <p>You are correct that the historical monitoring has yielded non-detects for these pollutants. However, the detection limits used to evaluate the presence of the pollutants was higher than the final effluent limits developed based on the WLAs. The inclusion of an effluent limit for the pollutants subject to WLAs is consistent with the requirements of the TMDL. This permit also includes requirements that the Discharger use a sufficiently sensitive method to demonstrate compliance with the applicable effluent limits, which will address the elevated detection limits associated with historical monitoring.</p>	
16	<p>Lastly - and even more compelling - <u>if the Refinery and all other point sources ceased discharging to the Harbor altogether, the sediments of the Dominguez Channel estuary would still exceed the TMDL targets for DDT and PCBs.</u> 11 Thus, it</p>	<p>See Response to Comment 15 above. The Harbor Toxics TMDL development process considered a number of factors. The point source discharges and the nonpoint source discharges are discussed at length in the staff</p>	None required.

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	<p>is believed that these pollutants, if present in stormwater, arise from discharges by others that are not within Tesoro's ability to control, including legacy sources.</p> <p><u>Tesoro requests that the Regional Board remove the effluent limitations for organic compounds, DDT, PCBs, dieldrin, and chlordane that are derived from the Harbor Toxics TMDL.</u> Alternatively, the Regional Board could implement the numeric requirements for organic compounds, DDT, PCB, dieldrin, and chlordane as performance goals with additional monitoring and source identification actions to be implemented if the goals are exceeded. In the event that the effluent limitations for these organic compounds were to remain in the permit, the Refinery proposed a TSO or compliance schedule that includes interim limits as explained in our August 6, 2014 letter and our letters submitted concurrently with these comments.</p>	<p>report entitled <i>Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Loads</i> (May 5, 2011). After considering air deposition, the current condition of the receiving water and legacy pollutants, the WLAs applicable to point source discharges was developed. The Harbor Toxics TMDL also states that it considered and includes irregular point source discharges. Hence, the WLAs developed are applicable to the Carson Refinery facility.</p>	
17	<p>Effluent limitations for PAHs. The TO includes effluent limitations for PAHs, namely benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene, derived from the Harbor Toxics TMDL.¹² As with DDT and PCBs and as detailed in Attachment A, Tesoro's analysis indicates that these pollutants have no reasonable potential to cause or contribute to an exceedance of water quality standards in the receiving water. Without a finding of reasonable potential, effluent limitations should not be included in the permit. In addition, there appear to be references to "performance goals" for these pollutants throughout the TO,¹³ and the NPDES permit recently adopted for</p>	<p>There are WLAs in a TMDL that are applicable to the Carson Refinery facility that must be incorporated into the NPDES permit. Federal regulations and USEPA guidance require the NPDES permit to implement the WLAs in the TMDL.</p> <p>The current protocol for implementation of TMDLs requires that if there is an approved TMDL and the water body has not been delisted for the targeted pollutants; the WLAs be translated into permit limits and included in the proposed permit.</p>	None required.

#	Comment Summary	Response	Action Taken
	<p>Tesoro's Calciner Facility includes performance goals, and no effluent limitations, for PAH compounds.¹⁴ A performance goal would be perfectly adequate to provide protection of the receiving water should a discharge occur and have detectable levels of PAHs.</p> <p><i>Tesoro requests that the Regional Board strike the effluent limitations for benzo(a)anthracene, benzo(a)pyrene, chrysene, and pyrene. Alternatively, the Regional Board could implement the numeric requirements for these PAH compounds as performance goals. In the event that the effluent limitations for PAH compounds were to remain in the permit, the Refinery would propose a compliance schedule in a TSO.</i></p>	<p>As stated previously, the adoption of a TMDL to address pollutant concentrations in a receiving water body itself establishes reasonable potential for the concentration of the pollutant to exceed or contribute to an exceedance of the applicable water quality standard. Section 1.4.A of the State Implementation Policy states “If a TMDL is in effect, assign a portion of the loading capacity of the receiving water to each identified priority pollutant source of water, point and nonpoint, based on the TMDL”. Hence, all point source discharges to Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters that have applicable WLAs will have effluent limits based on those WLAs included in their permits.</p> <p>The Harbor Toxics TMDL includes water column concentration based Waste Load Allocations applicable to Dominguez Channel Estuary for copper, lead, zinc, PAHs, chlordane, 4,4'-DDT, dieldrin, and total PCBs. Those WLAs were translated into effluent limits and included in the tentative Order. The TMDL also specifies which PAHs are to be addressed using the WLAs: benzo(a) anthracene, benzo(a) pyrene, chrysene, and pyrene. References to performance goals for these constituents is inappropriate. They are included with final effluent limits. Effluent limits included in the tentative Order for PAHs are appropriately included in the tentative Order.</p> <p>A TSO has been developed based on Discharger’s request for certain TMDL</p>	

#	Comment Summary	Response	Action Taken
		<p>pollutants where a compliance schedule has not been authorized in the 303(c) approval letter issued by USEPA. The interim limits included in TSO for LVW are based on the monitoring results of discharges in 2007 and 2008.</p> <p>The cited Tesoro Facility (Tesoro Calciner) discharges to Cerritos Channel within the Los Angeles and Long Beach Inner Harbors (Greater Harbor Waters). The Greater Harbor Waters do not have WLAs for PAHs, chlordane, or dieldrin. However Dominguez Channel Estuary, the receiving water (RW) for this facility does have WLAs for PAHs, chlordane, and dieldrin specified in the Harbor Toxics TMDL.</p>	
18a	<p>Tesoro requests that the monitoring requirements of the Harbor Toxics TMDL be removed from the permit. In the event that the requirements remain, Tesoro requests that adequate time be allowed to join a regional monitoring group and that joining a monitoring group is required only if Tesoro discharges to a receiving water under the permit. Time was required for the Tesoro Calciner to seek a means to join a regional monitoring that had already been formed; likewise, time will be required for the Refinery, particularly because a regional monitoring group is still in the process of forming.</p>	<p>The Harbor Toxics TMDL requires all dischargers to participate in a Monitoring Program with a group of dischargers associated with the specific receiving water body or develop a receiving water monitoring plan specific to the facility. The facility must also contribute to the assessment of the condition of the receiving water body (Dominguez Channel Estuary), or develop a site specific monitoring plan to evaluate potential impacts associated with the discharge.</p> <p>If discharges occur from the facility and sediment monitoring is not triggered, an assessment of the pollutant concentrations below the specified thresholds will be helpful in assessing where the new sediment is coming</p>	None required.

#	Comment Summary	Response	Action Taken
18b	Tesoro further requests: that the permit be revised to specify that the Refinery will provide the Regional Board notice of its intent to join a regional monitoring group within 60 days of a regional monitoring group being formed.	from. Hence, staff has included the requirement to monitor at least once during the permit term to determine the pollutant concentrations associated with sediment discharged. This monitoring is only required if the facility discharges during the permit term. Most of the monitoring groups have been formed. Hence, the request for a decision to be made after the group has been formed is no longer valid.	None required.
19	Language be added to the permit to specify that the Refinery will provide the Regional Board notice within 30 days of being accepted as a participant in the regional monitoring group.	The proposed permit already includes language that allows the Carson Refinery to determine within 90 days of the effective date of the permit whether it will join a group or develop and implement a site specific plan. If Carson Refinery decides to develop and implement a site specific plan, then the plan is due to the Regional Board 12 months from the effective date of the permit for review, comment, and approval.	None required.
20	Language be added to the permit to specify that the Harbor Toxics TMDL <u>monitoring is only required in years in which a discharge from the Facility to receiving waters occurs;</u>	If the Discharger joins a collaborative group then monitoring will occur as per the schedule. If the Discharger is developing a site specific monitoring plan, then the plan has to specify when the receiving water monitoring of the water column, sediment, and fish tissue will occur.	None required.
21	Reopener Provision for a Design Storm, Mixing Zone, and to Remove LVWs. The Refinery discharges infrequently, and discharges from the Facility are typically short in duration. Tesoro plans to undertake a study to determine	The Dominguez Channel Estuary is part of the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters. It has been determined that these waters because of historical and potentially ongoing pollution are	None required.

#	Comment Summary	Response	Action Taken
	<p>the retention requirements and capacity of the Facility and to optimize water handling and recycling practices at the Facility to minimize future discharges. Depending upon the results of the study and information obtained about the Facility's ability to retain storm flows, Tesoro may, in the future, wish to undertake studies to characterize the mixing that occurs in the receiving water when the Facility discharges. Tesoro may bring the results of this study (or studies) before the Regional Board, and requests that the Regional Board consider, based upon the results of this study, allowing Tesoro to request a Design Storm, mixing zone, and/or dilution credits for the Facility as well as a reopener to remove LVW from the NPDES permit provided the streams fall within the IGP. <i>Therefore, Tesoro requests the inclusion of the following language, similar to language found in the Calciner permit, in the permit for the Refinery: "This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for a design storm, dilution credits, a mixing zone, and to remove LVW streams from the permit, as may be appropriate."</i></p>	<p>not able to support their respective assigned beneficial uses. In fact, the Harbor Toxics TMDL was developed to address a number of stressors to the beneficial uses of the Harbor and its tributaries. Hence, the inclusion of a mixing zone in the permit at this time is not appropriate for any of the constituents that have been identified as stressors in Dominguez Channel, Greater Los Angeles, and Long Beach Harbor Waters or tributaries thereto.</p> <p>A request for dilution with a dilution/mixing zone study for pollutants that do not appear on the USEPA section 303 (d) list for Dominguez Channel Estuary and its tributaries may be considered for the Carson Refinery. Requests for dilution credits or mixing zone and the specific dilution must be approved by both the State Water Board and the Regional Water Board.</p>	
22	<p>Revise Average Monthly Effluent Limitation (AMEL) provisions in the Tentative Order. As detailed in Appendix I of this letter, Tesoro believes that AMELs are inappropriate for infrequent, short-duration discharges, such as occur under this permit. <i>Tesoro requests that AMELs be deleted from the permit. Alternatively, Tesoro requests that the language of the permit</i></p>	<p>This permit authorizes discharge throughout the operating hours of the facility and, as a result, average monthly effluent limits (AMELs) are used to help control water pollution to avoid chronic effects on human health and water quality. The maximum daily effluent limits (MDELs) help control water pollution to avoid acute effects on human health and water</p>	None required.

#	Comment Summary	Response	Action Taken
	<p><i>be modified to clarify that days with no discharge will be assigned a concentration of zero (0) for the purpose of calculating the average monthly discharge concentration.</i></p>	<p>quality. Both sets of limits are used by NPDES permit writers to protect human health and the environment. The discharge is comprised of stormwater runoff and other industrial wastewater. Also recent studies have provided data that indicate that short duration discharges can produce chronic effects (decrease reproduction, decrease growth, etc.) at lower concentrations than are required to produce acute effects, mortality. In order to ensure that the receiving water is protected, both MDELs and AMELs are applicable.</p> <p>The AMEL is calculated as per Finding VII.E. included in the proposed Order. As per the finding, a value of zero cannot be assigned for the concentration, on days when there are no discharges, when calculating average monthly discharge concentrations.</p>	
23	<p>Delete requirements to analyze for chronic toxicity. The TO requires Tesoro to test discharges from the Refinery for chronic toxicity using an in-stream waste concentration (IWC) of 100 percent effluent; the permit also contains an effluent limitation requiring the test to "pass" a chronic toxicity test evaluated using the TST method or to have a % effect < 50%. However, chronic toxicity tests evaluate the response of organisms exposed to effluent for long durations-typically 8 days - but discharges from the Facility are intermittent, infrequent, and typically last for less than one day. Thus, discharges from the Facility do not have the potential to result in chronic exposures, and chronic toxicity tests are an inappropriate and ecologically irrelevant metric.</p>	<p>The Basin Plan for the Los Angeles Region includes a narrative water quality objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are toxic to or produce detrimental physiological responses in, human, plant, animal, or aquatic life. The water quality objective also prohibits acute and chronic toxicity in specific circumstances. Detrimental responses include, but are not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. In accordance with the Basin Plan, the acute toxicity objective for discharges dictates that</p>	None required.

#	Comment Summary	Response	Action Taken
	<p>In addition, most chronic toxicity test methods require the collection of new samples daily for eight (8) days, and discharges from the Facility persist for a much shorter time period. Because of this, it is unclear how testing of effluent from the Facility would be done, and whether or not such testing could be done in a manner that conforms with the requirements of the test methods. Finally, the TST method has not been through formal rulemaking process; although EPA Region 9 has issued a determination that the TST is an "alternative test protocol" (ATP), Tesoro believes that the process followed by USEPA and the State Water Board is inappropriate, and reserves its rights to challenge the requirement to perform toxicity testing using the TST procedures.</p>	<p>the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Carson Refinery's 2007 permit, Order No. R4-2007-0015, contains acute toxicity limitations based on the acute toxicity objective in the Basin Plan.</p> <p>Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects. This Order establishes a chronic toxicity effluent limitation using USEPA's 2010 Test of Significant Toxicity (TST) analysis. Chronic toxicity limitations are expressed as "Pass" or "Fail" and "% Effect" for maximum daily single result. The chronic toxicity effluent limitations in this Order are as stringent as necessary to protect the Basin Plan water quality objective for chronic toxicity.</p> <p>The permit includes chronic toxicity using the USEPA promulgated method included in 40 CFR Part 136 which requires a minimum of a five concentration testing design for final effluent testing. The ATP approval dated March 17, 2014, which you referenced that was issued by EPA Region 9 was rescinded on February 11, 2015. Hence, the five concentration test continues to be the appropriate test to use. However, the TST statistical analysis continues to be the appropriate statistical approach to analyze the data generated during the test.</p>	

#	Comment Summary	Response	Action Taken
		<p>The Monitoring and Reporting Program in Section V.A.2. specifies that "Sufficient sample volume shall be collected to perform the required toxicity test." Since discharges from the facility occur infrequently, the sample collection protocol should mirror the protocol used for stormwater discharges which also occur infrequently. When the sample is collected, additional water should be collected in case accelerated monitoring or a TIE is required.</p> <p>As specified in the Fact Sheet, the Permittee or any Stakeholder may comment on and/or challenge any decisions made in the permit. The protocol enumerated in the permit for the testing of toxicity samples and for analysis of the data is based on the current regulation and guidance.</p>	
24	<p>Typographical error: We believe that the first sentence on p. 12 of the tentative permit, should be modified to read as follows: "The following concentration-based sediment waste load allocations (WLAs) for metal (mercury <u>cadmium</u>)...". Similarly, we believe the final sentence of compliance method 1, at p. 12 of the tentative permit, should read as follows: "The analytical result of the effluent sediment can be used for the direct comparison with the sediment allocation of mercury <u>cadmium</u>, chlordane, and dieldrin."</p>	Typographical errors corrected as suggested	Update incorporated.
25	<p>Facility Description: With reference to the Facility Description on Page F-8 and Attachment</p>	The reference to the mobile temporary treatment system has been deleted, as	Update incorporated.

#	Comment Summary	Response	Action Taken
	<p>C-2, <i>we request that the Mobile Temporary Treatment System for the Process Wastewater Commingled with Stormwater and Boiler Slowdown be removed as a requirement.</i> Discharge of this waste stream is done on an emergency basis only and the last discharge of this waste stream occurred in 1995. Therefore, due to the emergency nature of the discharge of this waste stream requiring a Mobile Temporary Treatment System is not appropriate.</p>	<p>suggested. The Discharger is required to comply with the final effluent limits specified in Tables F-17a and F-17b of the Fact Sheet.</p>	
	<p>Appendix I</p>		
<p>26</p>	<p>First, we do not believe that Average Monthly Effluent Limitations ("AMELs") in an NPDES permit can be applicable for discharges that occur on only one day (or less) in any given month. Therefore, we request that paragraph E of Section VII of the TO(at p. 24) be revised to read as follows: <i>If the average (or when applicable, the median determined by subsection E above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31day month). If only a single sample is taken during the calendar month,-dftd the analytical result for that sample exceeds the AMEL, <u>and there is no discharge on other days of the month, the Discharger shall assign a zero concentration value for days with no discharge when calculating the monthly average discharge concentration</u> will be considered out of compliance for that calendar month. For any one calendar month during which</i></p>	<p>See Response to Comment 22. Maximum daily effluent limits (MDEL) are included in permits for facilities discharging only stormwater. MDELs and AMELs are included in permits where industrial wastewater commingles with stormwater. Both the process wastewater and low volume wastewater are industrial wastewater streams in addition to stormwater runoff. Discharges of wastewater or wastewater mixed with stormwater are regulated with MDELs and AMELs. Recent findings indicate that a short term discharge, as is referenced here, may result in pollutant concentration that produce chronic effects (decrease reproduction, decrease growth, etc.) at lower concentration than are required to produce acute effects, mortality. To ensure protection of the receiving water body, both an AMEL and MDEL is included. The proposed permit authorizes Carson Refinery to discharge wastewater mixed with stored stormwater to the receiving water even on non-rainy days. It has not happened in recent years</p>	<p>None required.</p>

#	Comment Summary	Response	Action Taken
	<i>no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.</i>	but there is a possibility that the Carson Refinery may discharge for more than one day per month.	
27	<p>Tesoro believes this is an appropriate revision for the permit. This is because, for aquatic life, the averaging period applicable to chronic water quality criteria, from which the effluent limitations were derived, is longer than the exposure period that occurs during a short-term (four days or less) discharge. In other words, a short-term exposure (shorter than the chronic toxicity exposure duration) does not have the potential to cause chronic toxicity. Similarly, the criteria intended to protect human health were developed assuming 70 years of human exposure, a scenario that clearly does not and will not occur for discharges from this Facility.</p> <p>The addition of this provision is well supported by the record. Discharges from the Facility are expected to be infrequent and intermittent, and highly unlikely to occur for more than a 24-hour period for LVW. The language of the Tentative Order indicates that, under these circumstances, both the maximum daily effluent limit (MDEL) and the lower AMEL would apply to that discharge. Tesoro believes that this is technically inappropriate and in effect would apply two different effluent limits to a single discharge event.</p>	See Response to Comments 22 and 26 above.	None required.
28	<p>• Receiving water monitoring station locations. Table E-1 at p. E-6 through E-7 of the TO specifies receiving water monitoring stations, and specifies in part that "The receiving water sampling station shall be located midstream in Dominguez Channel at a point where the</p>	Text modified as suggested.	Text modified as requested.

#	Comment Summary	Response	Action Taken
	<p>discharge and receiving waters have thoroughly mixed, but not to exceed 50 feet from the center of the discharge point line in the direction of tidal flow at the time of sampling." It is unknown whether or not full mixing will occur within 50 feet of the point of discharge, and Tesoro believes that it is unlikely to occur during the high receiving water flow conditions that occur during storm events, and during which a discharge from the Refinery would be likely to occur. <i>For this reason, Tesoro requests that this sentence be modified to read as follows (text in strikeout is requested to be deleted): "The receiving water sampling station shall be located midstream in Dominguez Channel at a point where the discharge and receiving waters have thoroughly mixed, but not to exceed <u>approximately 50 feet</u> from the center of the discharge point line in the direction of tidal flow at the time of sampling."</i></p>		
29	<p>Receiving water sediment monitoring locations. Table E-1 at p. E-7 identifies seven receiving water sediment monitoring locations. The monitoring requirements applicable to these locations are contained in Table E-7 at p. E-20. As detailed above, discharges from the Refinery under this permit occur infrequently, most likely during large storm events, when flow rates in the receiving water are high. Based on our experience and on the restricted and difficult access to the Dominguez Channel itself, it is unlikely that these locations can be accessed safely during discharge events. Discharges during these high flow events would be carried downstream rapidly, with little opportunity for particulate matter that may be present in the discharge to settle to the channel</p>	<p>As shown in Figure C-3, the five discharge outfalls are separated by large distances. The proposed sediment monitoring stations are located close to the outfall locations to observe the impacts of discharge on the impaired Dominguez Channel Estuary. Tesoro is required to take sediment samples only when there is a discharge and when it is safe. Carson Refinery is required to take only one sample during the life of the permit, if there are no discharges.</p>	None required.

#	Comment Summary	Response	Action Taken
	<p>bottom, such that samples collected from the channel bottom would likely not contain any trace of material discharged from the Refinery. Therefore, Tesoro requests that the requirements for sediment sampling at Stations SED-001 through SED-007 be deleted from the permit. Alternately, Tesoro requests clarification that these receiving sediment monitoring requirements can be satisfied by participating in a regional monitoring coalition.</p>		
30	<p>Discharge sediment monitoring. On page 15 of the TO, footnote 4 to Table 6 requires detailed sediment analyses only if <u>both</u> TSS limit is exceeded <u>and</u> a CTR TMDL-based limit for copper, lead, zinc, 4,4'-DDT, total PCBs, benzo(a)pyrene, or chrysene is exceeded. Tesoro supports this provision. However, Tesoro is concerned that language specifying that, if this occurs, "then the Discharger has not demonstrated attainment with the interim sediment allocations stipulated by the Harbor Toxics TMDL" may be misinterpreted to mean that this occurrence (i.e., exceedance of both the TSS limit and a CTR TMDL-based limit) may itself constitute a permit violation, which we do not believe was the intention of this language. Tesoro requests that the footnote be modified to read as follows:</p> <p><i>"During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and a CTR TMDL-based effluent limit or performance goal for copper, lead, zinc, 4,4-DDT, total PCBs, benzo(a)pyrene, or chrysene, then the Discharger has not</i></p>	<p>The language as included indicates that the direct method of demonstrating attainment must be implemented if the monitoring results for both the TSS effluent limit and a CTR TMDL-based effluent or performance goal is exceeded. No change is required.</p>	None required.

#	Comment Summary	Response	Action Taken
	<p>demonstrated attainment with the interim sediment allocations stipulated by the Harbor Toxics TMDL Resolution No. R11-008 page 11, Item 3, and implementation of the effluent sediment monitoring program is required for that pollutant. An effluent sediment monitoring result at or below the interim sediment allocation in Table 7, page 25 23 of this Order, demonstrates attainment with the interim sediment allocation and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation."</p>		
31	<p>Sediment monitoring requirements. As detailed below, Tesoro has a number of concerns regarding the sediment monitoring requirements included with and in Table E-4 at p. E-13. Tesoro requests that <i>Section IV. C. of the Monitoring and Reporting Plan</i> be deleted in its entirety.</p>	<p>Section IV.C will not be deleted. Responses to specific comments are addressed below.</p>	<p>None required.</p>
32	<p>Lack of standard methods. Based on the language that precedes Table E-4, it appears that the Regional Board desires for Tesoro to collect large quantities of effluent sample, and to filter the particles from that sample such that sufficient quantity of suspended solids are obtained for chemical analysis. Tesoro does not know of standard methods for this kind of sampling and testing. In fact, footnote 2 to Table E-4 (at p. E-13</p>	<p>The requirement is included in the permits discharging to impaired Dominguez Channel and Greater Los Angeles and Long Beach Harbors. Sampling methods are available and are being used by other dischargers.</p>	<p>None required.</p>

#	Comment Summary	Response	Action Taken
	<p>of the tentative permit) specifies that "Pollutants shall be analyzed in accordance with USEPA or ASTM methodologies where such methods exist. Where no USEPA or ASTM methods exist, the State Board or Regional Water Board shall approve the use of other methods." As detailed throughout these comments, discharges made under this permit are infrequent and short-duration. Tesoro believes that it is inappropriate and disproportionate for the Regional Board to require Tesoro to develop new sampling and analysis methods for such a discharge. <i>Tesoro requests that Section IV. C. of the Monitoring and Reporting Plan be deleted in its entirety.</i></p>		
33	<p>Lack of clarity regarding sampling frequency. As detailed throughout these comments, discharges under this permit are infrequent and short-duration, and last occurred in 2008 for LVW and in 1995 for commingled discharges. Nonetheless, the MRP at p. E-13 specifies that "Effluent sediment monitoring is only required during years in which any exceedance occurs as described in Footnote 1 to the following table. If effluent sediment monitoring is not triggered by an exceedance, effluent sediment monitoring must be conducted as described here at least once during the permit term." Because the frequency of discharge has been less than once per permit term in recent years, Tesoro may not have the opportunity to conduct sampling of the discharge, and believes that it is inappropriate to require such sampling if the triggering event (as specified in Footnote 1 to Table E-4) does not occur. If this sampling requirement remains in the permit, Tesoro requests that this language be modified to</p>	<p>If no discharges occur from Carson Refinery, no effluent sampling is required. If there is no effluent sampling there is no data to trigger the effluent sediment analysis. However, if the Carson Refinery discharges and the data does not trigger sediment analysis; the permit requires that the Discharger complete sediment analysis on at least one discharge during the permit term. See Page E-13.</p>	None required.

#	Comment Summary	Response	Action Taken
	<p>read as follows: "Effluent sediment monitoring is only required during years in which any exceedance occurs as described in Footnote 1 to the following table, <u>and is not required during years where no discharge occurs.</u> If effluent sediment monitoring is not triggered by an exceedance, effluent sediment monitoring must be conducted as described here at least once during the permit term." if a discharge occurs.</p>		
34	<p>Constituents are referenced inconsistently. Monitoring thresholds for sediment associated contaminants are included in Table 7 of the tentative permit, at p. 20, and include copper, lead, zinc, PAHs, DDTs, and PCBs. Footnote 1 to Table E-4 specifies that sediment monitoring will be required if both (a) effluent limits or performance goals are exceeded for copper, lead, zinc, 4,4-DDT, total PCBs, benzo(a)pyrene, or chrysene and (b) a TSS effluent limit is also exceeded; Footnote 1 then requires the "implementation of the effluent sediment monitoring program...for that priority pollutant." Finally, Tables 4 and 5 of the Order include a footnote 2, which is similar to Footnote 1 of Table E-4 but does not include lead in the list of constituents that could trigger additional monitoring requirements. <i>If sediment effluent monitoring requirements remain in the permit, Tesoro therefore requests that the following constituents be deleted from Table E-4: cadmium, mercury, lead, chlordane, and dieldrin.</i></p>	<p>Footnote 2 of Table 4 did not reference lead; that has been corrected. Footnote 3 of Table 5 did reference lead. Both of the footnotes should have referenced lead and the required update has been implemented. As specified in Response to Comment 16, these pollutants are subject to sediment WLAs, hence the monitoring and effluent limits are appropriate.</p>	<p>Footnote 2 of Table 4, Page 6 of Order has been updated.</p>
35	<p>Clarification requested regarding monitoring and reporting requirements. Tables E-5 and E-6 at p. E-18 and E-19: <i>Tesoro requests that</i></p>	<p>Reporting is required even if no discharge occurs.</p>	<p>None required.</p>

#	Comment Summary	Response	Action Taken
	<p><i>Footnote 1 to these tables be modified to read as follows: "Each separate period of discharge shall be sampled, but no more than one sample per quarter is required. <u>If no discharge occurs, no monitoring or reporting is required.</u>"</i></p>		
36	<p>Biomonitoring requirements using caged bivalves. Section VII.E. of the Monitoring and Reporting Plan includes requirements for biomonitoring using caged bivalves, and references Special Provision VI.C.2 of the Order. However, the Order does not include requirements for biomonitoring using caged bivalves at this or any other section of the Order. Tesoro believes that it is inappropriate and disproportionate to require caged bivalve monitoring of an infrequent and short-term discharger, as the deployed bivalves would be unlikely to be exposed to effluent discharges from the Refinery during their period of deployment. Further, Tesoro understands that the fish tissue monitoring requirements of the Harbor Toxics TMDL are intended to allow an evaluation of bioaccumulation. <i>Therefore, Tesoro requests that Section VII.E. of the MRP be deleted in its entirety.</i></p>	<p>The biomonitoring requirement using caged bivalves is present in the current permit (Order No. R4-2007-0015) and Carson Refinery has been complying with the requirement. The same monitoring requirement is included in the proposed permit.</p> <p>The biomonitoring plan is to evaluate the potential bioaccumulation of anthropogenic materials by bivalves (<i>Mytilus cali/orinimrrs</i> aka mussels) resulting from discharges to the Dominguez Channel Estuary associated with the operation of the Carson Refinery. The biomonitoring plan will investigate the potential for intermittent discharges from Carson Refinery to lead to significant levels of bioaccumulation in caged mussels located at varying stations within the Dominguez Channel Estuary. Specifically, mussels will be deployed at stations in the vicinity of Carson Refinery's outfall points that have intermittent discharge as well as upstream and downstream from the Carson Refinery property discharge areas. Bivalves will be incubated for several weeks, retrieved, and then harvested for chemical analyses to determine the concentration of selected constituents of interest (COI) within the tissue (i.e., determine body burden). These results will be used to evaluate the concentrations of COIs within bivalve tissues</p>	None required.

#	Comment Summary	Response	Action Taken
		<p>near Carson Refinery's outfall points and to determine if the concentrations of COIs at these locations differs significantly from concentrations of COI's from bivalves placed upstream and downstream from Carson Refinery's discharge locations. The station locations for the bivalve cages will be placed near the sediment sampling locations.</p> <p>Carson Refinery can join with other dischargers in the Dominguez Channel Estuary in a coordinated biomonitoring program</p>	
37	<p>Request for clarity regarding coordinated monitoring. Section VIII.F. of the Monitoring and Reporting Plan states that Tesoro may participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Dominguez Channel Estuary. This section also specifies that "Upon approval by the Regional Board of such a coordinated water quality and sediment quality monitoring program, provisions of Section VIII of this MRP may be revised, as appropriate." <i>Tesoro requests clarification in this section that it is the intent of the Regional Board to allow Tesoro to satisfy its receiving water and sediment monitoring duties by participating in a regional monitoring plan, and that the Regional Board may clarify the monitoring requirements of the permit to ensure that they are consistent with the regional monitoring program, but the Regional Board shall not impose additional monitoring duties.</i></p>	<p>See Response to Comments 18, 19, and 20 above.</p> <p>Staff is unaware of what will be required to ensure that the plan which is currently being developed will satisfy Regional Monitoring requirements. Hence, we cannot guarantee that the Discharger will not be asked to perform some additional monitoring.</p>	None required.
	Request for In-Permit Compliance Schedules		
38	The Tentative Order contains effluent limits for copper, lead, nickel, zinc, cyanide, bis(2-	Tesoro has reduced and/or eliminated some discharges that are included in the proposed	None required.

#	Comment Summary	Response	Action Taken
	<p>ethylhexyl)phthalate, BOD, settleable solids, aldrin, chlordane, dieldrin, 4,4'-DDT, PCBs, heptachlor epoxide, benz(a)anthracene, benz(a)pyrene, chrysene, and pyrene for low volume waste (LVW) discharges with which Tesoro may not immediately be able to comply. Tesoro is submitting this request for adoption of In-Permit Compliance Schedules that include interim limits for the following constituents: copper, lead, zinc, BOD, and settleable solids. Justification for a Time Schedule Order for other potential final effluent limits is contained in a separate document titled <i>Request for a Time Schedule Order for Tesoro Los Angeles Refinery</i>.</p> <p><i>Justifications for in-permit compliance schedules for copper, lead, zinc, BOD, and settleable solids are provided here in accordance with the State Water Board's Policy for Compliance Schedules in NPDES Permits (Compliance Schedule Policy, SWRCB Resolution No. 20080025). The purpose of this report is to provide the Regional Water Board with the information necessary to make the findings required to issue In-Permit Compliance Schedules that include interim limits applicable to discharges of low volume wastes from Discharge Points 001, 002, 003, 004, and 005, which, in the event of an emergency or pump failure, have the potential to discharge directly to the Dominguez Channel Estuary. It should be noted that the need to discharge is very rare and only occurred three times during the last permit cycle. Tesoro estimates that the total discharge volume from the three events was less 2000 gallons, and each event lasted for only a few hours.</i></p>	<p>permit. The proposed permit allows discharge of two wastewater streams: process wastewater comingled with stormwater and low volume wastewater (LVW). The last discharge of process water comingled with stormwater was in 1995. Less than 2,000 gallons of LVW under the NPDES permit was discharged in the last two discharge events in 2008, as compared with the permitted limit of 45,000 gallons.</p> <p>BOD and settleable solids are not subject to a TMDL but are Basin Plan water quality objectives. The monitoring data does indicate that Tesoro Refinery may not be able to comply with the effluent limits. However, for the low volume waste the limits included in the tentative are consistent with the limits included in the current permit (Order No. R4-2007-0015). The limits for BOD included in the tentative Order for the process wastewater comingled with stormwater and boiler blowdown based on EPA's Effluent Limitation Guidelines (ELGs) are less stringent than the limits included in the current Order that were based on Best Professional Judgment (BPJ) . Since the limits included for BOD or settleable solids are not more stringent, as per the Compliance Schedule Policy (Resolution No. 2008-0025), a compliance schedule for these pollutants cannot be included in the permit.</p>	<p>None required.</p>

#	Comment Summary	Response	Action Taken
		<p>The limits implemented for copper and zinc are based on the Harbor Toxics TMDL which includes an approved implementation schedule, hence staff will include a compliance schedule in the revised tentative permit for these pollutants.</p>	<p>A compliance schedule has been included in the revised tentative requirements.</p>
	Request for Time Schedule Order		
39A	<p>Because the Tentative Order contains effluent limits with which Tesoro will not be able to consistently comply, Tesoro is submitting this Time Schedule Order (TSO) justification in accordance with the requirements of Water Code sections 13300 and 13385(j)(3)(A) and (B). Justification for a TSO is provided herein for</p> <ul style="list-style-type: none"> (i) the TMDL-related organics (chlordan, dieldrin, 4,4'-DDT, PCBs) and polycyclic aromatic hydrocarbons (PAHs) (benz(a)anthracene, benz(a)pyrene, chrysene, and pyrene) because compliance is uncertain for these constituents; (ii) nickel, cyanide, and bis(2-ethylhexyl)phthalate because they show reasonable potential to exceed these limits; (iii) aldrin and heptachlor epoxide because compliance is uncertain as it is for the TMDL-related constituents; and (iv) total petroleum hydrocarbons (TPH) because there is no data to evaluate compliance. Compliance is uncertain with the majority of these constituents because even though they have never been detected, the analytical method has higher detection limits than the TO effluent limits. 	<p>See Response to Comments 1 and 38 above.</p> <p>The limits included in the revised tentative for nickel, bis(2-ethylhexyl)phthalate, aldrin and heptachlor epoxide are consistent with the limits included in the current permit (Order No. R4-2007-0015). Since the limits included are not more stringent, as per the Compliance Schedule Policy (Resolution No. 2008-0025), a compliance schedule for these pollutants cannot be included in the permit.</p> <p>A compliance schedule with interim limits for TMDL constituents (copper, zinc, chlordan, 4,4'-DDT, PCBs, and polycyclic aromatic hydrocarbons (PAHs) (benzo(a)anthracene, benzo(a)pyrene, and chrysene)) is included in the revised tentative permit. Carson Refinery has met the limits for TMDL constituents; lead and pyrene, therefore, interim limits are not included.</p> <p>TPH fractions are produced at the refinery, stored there, and there is a potential for TPH to be transported offsite by wastewater discharge. TPH limits based on BPJ are included in all individual NPDES permits for facilities that</p>	<p>None required.</p> <p>A compliance schedule is included in the revised tentative requirements.</p>

#	Comment Summary	Response	Action Taken
39B	<p>Tesoro also believes a TSO should provide time for Tesoro to transition out of the NPDES permit for LVW because each of the LVW streams appears eligible for discharge under the California Industrial Stormwater General Permit (IGP), rather than this permit. In the interim, Tesoro shall continue to operate in accordance with its Stormwater Pollution Prevention Plan in its current configuration of outfalls.</p>	<p>store or manufacture TPH products. No interim limit will be included in the proposed permit for TPH. If data indicates Carson Refinery's inability to immediately comply with the limit, then a TSO can be requested with interim limits and a compliance schedule.</p> <p>Tesoro Refinery cannot enroll under the Industrial General Permit because it discharges industrial wastewater mixed with stormwater, had violations in the past, and it is in close proximity to the impaired receiving water body (Dominguez Channel Estuary). Carson Refinery may request termination of the individual NPDES permit, if they will not be discharging any wastewater to the receiving water. Stormwater runoff that is segregated from any wastewater generated onsite and that consistently demonstrates an ability to comply with applicable limits for a number of discharge events will provide the basis for a request to enroll in the NPDES General Stormwater Permit for Industrial Facilities. Any wastewater discharge after termination of the individual NPDES permit will be a violation of the Clean Water Act.</p>	None required.
39C	<p><u>Actions to be Taken to Achieve Compliance</u> Compliance will be achieved by a combination of evaluation and application of the regulatory and treatment strategies described above. A proposed scope for actions needed to achieve compliance is described below.</p> <ol style="list-style-type: none"> 1. Conduct study of rainfall volume required to be retained. 	<p>A compliance schedule for pollutants as authorized by USEPA in the CWA 303(c) letter, with interim limits is included in the proposed permit.</p>	A Compliance schedule is included.

#	Comment Summary	Response	Action Taken
39D	<p>2. Conduct feasibility study for providing necessary stormwater storage capacity to retain rainfall volumes determined in Step 1, above.</p> <p>3. If retention of stormwater on-site is not feasible as determined in Step 2, above, evaluate treatment options to include recycle and reuse of treated wastewater and stormwater.</p> <p>4. Prepare scope and schedule to implement required actions to achieve compliance.</p> <p>5. Achieve compliance.</p> <p><u>Interim Limits</u> Due to the lack of data, it is not possible to determine a statistically-valid value for interim limits. In this case, interim limits can be set at 3.11 times the maximum observed effluent concentration (MEC), per the USEPA <i>Technical Support Document for Water Quality-based Toxics Control</i> ((EPA1505/2-90-001), TSD).</p>	<p>Interim limits are based on the MEC (and not 3.11 times MEC) of the monitoring results of both LVW and comingled process wastewater with stormwater discharges in 2007 and 2008 are included in the compliance schedule as well as in the TSO. In cases where the results are non-detect, the detection limit has been used as the interim effluent limit in the TSO.</p>	<p>Interim limits are based on the MEC and/or MDL.</p>