

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

RESPONSE TO WRITTEN COMMENTS

ON THE REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

Chevron Products Company, a division of Chevron U.S.A. Inc., Chevron Chemical Company LLC, and General Chemical Corporation
Richmond Refinery
Contra Costa County
NPDES Permit No. CA0005134

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- I. Western States Petroleum Association – June 13, 2011**
 - II. Bay Area Clean Water Agencies – June 13, 2011**
 - III. Chevron Products Company – June 9, 2011**
 - IV. San Francisco Baykeeper – June 13, 2011**
 - V. City of Richmond – June 3, 2011**
 - VI. Editorial Corrections Initiated by Regional Water Board Staff**

Note: The format of this staff response begins with excerpts of the party's comments, followed with staff's response. Interested persons should refer to the original letters to ascertain the full substance and context of each comment.

I. Western States Petroleum Association (WSPA)

WSPA Comment 1

The Order includes a requirement for the Discharger to collect additional receiving water monitoring data for hardness and salinity. This new requirement is disconcerting, as the Regional Monitoring Program (RMP) was established for the purpose of gathering the ambient background receiving water data, including hardness and salinity, that is necessary for the Regional Board's calculation of reasonable potential and effluent limitations. The Regional Board has required all the refineries to participate, as part of the Discharger community, in the RMP. Since the collection of hardness and salinity data throughout the Bay is for the purpose of calculating RPA and effluent limits, it can be utilized for multiple dischargers. Furthermore, these parameters are not being sampled as a demonstration of an individual discharger's receiving water compliance.

Therefore, WSPA believes it is appropriate for the collection of this ambient receiving water data to be directed through the RMP rather than by individual dischargers.

WSPA requests that the Regional Board allow the Discharger the option to conduct the additional receiving water sampling for hardness and salinity via a collaborative monitoring program, such as through the RMP and their existing sampling stations. This could be accomplished by incorporating language into the Order directing the

Discharger, “to conduct or cause to conduct...” Language allowing this option has already been incorporated into other Permits previously adopted by the Board. Giving the Discharger this option allows some flexibility without adversely affecting the Board’s interest in having this sampling performed.

WSPA would like to work with the Regional Board and the RMP to include the sampling of salinity, hardness, and other key parameters to provide sufficient data to conduct RPA and effluent limit calculations for all applicable dischargers. We are pursuing efforts at this time to incorporate receiving water sampling back into the RMP program.

Response 1

We have made changes in response to this comment. Upon re-evaluation, we agree with WSPA and the premise behind the Water Board’s RMP that more useful information can be obtained from the collaborative and coordinated RMP effort in place of discharge-specific receiving water monitoring. Therefore, we revised Table E-6 of the tentative order to only require receiving water monitoring for salinity and hardness, because more data for these two parameters than currently generated from the RMP are necessary to accurately determine appropriate effluent limitations. Moreover, because salinity and hardness values are likely to be similar at the far end of Richmond Long Wharf and 2,000 feet offshore (Discharge Point 001), we revised Table E-1’s Monitoring Station Locations as follows to eliminate unnecessary burden in collecting those data:

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Receiving Water	CRSW-001	At any point <u>that is representative of salinity and hardness near Discharge Point 001. The Discharger may also satisfy this requirement by ensuring such samples are collected by the RMP in San Pablo Bay, approximately 2,000 feet north of Point San Pablo.</u>

Because of this revision, Chevron will no longer have to mobilize a vessel to collect receiving water samples.

WSPA Comment 2

In the calculation of water quality objectives and criterion for metals, the Order utilizes a hardness factor of 59 mg/L. The Fact Sheet indicates that this is the minimum value of the given hardness dataset at the Pinole Point RMP Station (BD30). WSPA believes the use of this number is inappropriate for the discharge location. The Regional Board, in recently adopted orders of other refineries, utilized the geometric mean of the discharger’s RMP dataset, using data point’s < 400 mg/L CaCO₃. WSPA recognizes that this is a conservative methodology to derive a hardness value using guidance provided in the California Toxics Rule and is used in datasets of varying sample size, including those the same size (<400 mg/L CaCO₃) as Chevron. However, the Order utilizes the minimum value of Chevron’s RMP dataset, instead of taking the geometric mean as stated above. This results in an inconsistent application of ambient receiving water data among the discharger community. WSPA believes the use of the geometric mean to derive a hardness value would result in a factor that is still very conservative and protective of

water quality, yet consistent with the application previously used by the Regional Board to establish hardness in similar orders.

WSPA requests that the Regional Board use the geometric mean of 154 mg/L CaCO₃, using the hardness data (< 400ug/L CaCO₃) for the Pinole Point RMP Station, in the Reasonable Potential Analysis to define the applicable water quality objectives and criterion.

Response 2

We have not made changes in response to this comment. At the Pinole Point sampling station, there have only been nine samples collected for hardness. As one sample out of nine (i.e., 11%) shows that hardness could be at a very low concentration, we believe that it is necessary to use the lowest value until more data are collected. This is, in part, because hardness is used to calculate acute and chronic water quality criteria for metals that apply to short exposure durations (i.e., one hour for acute and four days for chronic). Therefore, until Chevron gathers more data, we believe that it is appropriate to use a conservative hardness value.

II. Bay Area Clean Water Agencies (BACWA)

BACWA Comment 1

BACWA's comments concern one item in the Chevron TO that is also applicable to our member agencies' permits, which is related to the derivation of copper effluent limits. On June 13, 2007 this Regional Water Quality Control Board (Regional Water Board) approved new site specific water quality objectives for copper for the San Francisco Bay north of the Dumbarton Bridge, which were formally approved by the US Environmental Protection Agency on January 6, 2009. These site specific objectives were the result of a six-year, million dollar technical effort led by the former Clean Estuary Partnership. BACWA believes that these objectives, not other standards or criteria, provide the proper basis for calculating effluent limits in permits.

The Fact Sheet in the Chevron TO (pp. F-31 – F-32) calculates copper Water Quality Based Effluent Limits (WQBELs) using the appropriate Basin Plan site specific objectives and metals translators. The TO, however, does not incorporate these as limits on the grounds that the site specific objective-based limits are less stringent than those in the current permit (Order No. R2-2006-0035). This permit, issued prior to incorporation of the site specific objectives into the Basin Plan, contained copper limits based on the now-inapplicable California Toxics Rule.

BACWA believes that the extensive set of new information that was developed in support of the copper objectives in the Basin Plan qualifies for the "new information" exception to antibacksliding requirements (CWA Section 402(o)(2)(B)). In addition, the standards-setting process for the copper site specific objectives adopted by the Regional Water Board addressed anti-degradation policies and concluded that water quality would not be degraded if WQBELs were derived from these objectives. This conclusion was based,

in part, on the assumption that dischargers would implement copper action plans to maintain their current performance, which they have done. The copper WQBELs calculated based on the copper SSOs are therefore consistent with anti-degradation policies.

Under Clean Water Act Section 402(o)(1), there is an allowable exception to anti-backsliding for waters where concentrations are below water quality objectives as long as the relaxation of limits complies with anti-degradation requirements. As detailed above, anti-degradation is satisfied, and thus the requirement for an exception to anti-backsliding is also satisfied.

These same copper anti-backsliding issues were raised during the January 23, 2007 reissuance of the Central Contra Costa Sanitary District (CCCSD) NPDES permit, Order R2- 2007-008. CCCSD filed a timely petition of that permit to the State Water Board on February 22, 2008. That petition, SWB A-1829, has been held in abeyance, and contains detailed technical and legal rationale for why CCCSD (and by inference Chevron) should be granted an exception to anti-backsliding requirements and allowed effluent limits based on the Basin Plan's copper site specific objectives. BACWA asks that the Regional Water Board staff carefully review the information contained in this petition and revise the TO to ensure that the site specific objectives, not the CTR, are used to calculate copper effluent limits.

Response 1

We made changes in response to this comment. We reviewed anti-backsliding requirements in the Clean Water Act, and we agree that backsliding is permissible for copper because antidegradation requirements have been satisfied.

This interpretation of the Clean Water Act is consistent with that of U.S. EPA. Specifically, *U.S. EPA NPDES Permit Writers' Manual*, dated December 1996, U.S. EPA Publication Number 833-B-96-003, states:

“EPA has consistently interpreted Section 402(o)(1) of the Clean Water Act to allow relaxation of water quality based effluent limits if either the requirements of Section 402(o)(2) or section 303(d)(4) are met. These two provisions constitute independent exceptions to the prohibition against relaxation of permit limits. If either is met, relaxation is permissible.”

As San Francisco Bay is in attainment for copper, Section 303(d)(4)(B) indicates that water quality based effluent limits may be relaxed where the action is consistent with the State's antidegradation policy. For copper, the Water Board adopted site-specific objectives for San Francisco Bay that included an antidegradation analysis. To ensure that antidegradation requirements are satisfied, all dischargers to San Francisco Bay must implement copper actions plans. This requirement is included in Chevron's tentative order (Provision C.4.b requires that Chevron implement a Copper Action Plan to ensure that copper discharges from its wastewater treatment plant do not increase). Since antidegradation requirements for copper have been satisfied, it is permissible to backslide

under the Clean Water Act. Therefore, we revised copper effluent limits to be consistent with the site-specific objective for San Francisco Bay instead of default CTR criteria.

We modified Table 7 - Effluent Limitations for Toxic Substances at Discharge Point No. 001 as follows:

Parameter	Units	Final Effluent Limitations ^[1]	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	13 <u>84</u>	25 <u>120</u>

We also modified page F-32 of the Fact Sheet as follows:

Anti-backsliding. This Order satisfies anti-backsliding requirements because San Francisco Bay is in attainment for copper and, consistent with Section 303(d)(4)(B), the Regional Water Board completed an Antidegradation Analysis for copper when it developed site-specific objectives. ~~retains the more stringent WQBELs from the previous permit, thereby satisfying anti-backsliding requirements.~~

III. Chevron Products Company (Chevron)

Chevron Comment 1

Chevron indicates that to provide additional clarity to Discharge Prohibition C, there should be an additional reference to Finding B, which provides a more detailed explanation of system operation.

Chevron proposes the following change.

The bypass of untreated or partially treated process wastewater to waters of the United States is prohibited, except as provided for in sections I.G.2 and I.G.4 of Attachment D to this Order and as noted in Prohibition B and Finding B.

Response 1

We modified the tentative order to include this clarification.

Chevron Comment 2

Chevron indicates that 40 CFR 136 does not cite Cyanide as a constituent defined as a total recoverable metal.

Chevron respectfully requests that Cyanide be labeled in the Tentative Order and in the MRP as “Cyanide, Total” instead of “Cyanide, Total Recoverable” to be consistent with the required test method protocols

Response 2

We modified the tentative order to include this correction.

Chevron Comment 3

Chevron supports staff's incorporation of recycled (intake) effluent limitation adjustments in the Tentative Order. Effluent limitation adjustments for recycled water are an integral part of California water policy as outlined in the Basin Plan Section 4.16 and State Water Board Resolutions 77-1 and 2009-0011, and to promote the use of recycled water without penalizing Dischargers who beneficially reuse waters that would otherwise be discharged to Bay-Estuary receiving waters. The allowance of these adjustments is a key component in Chevron's ability to maintain compliant operation while replacing 60% of the Refinery's total water usage with recycled water. Failure to provide such credits could impact Chevron's ability to use recycled water in the future.

The RWQCB has continued to support the usage of recycled water by preserving the use of credits for some constituents in the Tentative Order. However, Chevron believes a selenium concentration credit should also be included.

The Fact Sheet (p. F-41) states that the reasoning why selenium did not receive concentration credits is that selenium will be regulated in the future through a wasteload allocation in a TMDL. If and when this TMDL is adopted and implemented, it is Chevron's expectation that effluent limitation adjustments will be included as part of the TMDL, similar to recently implemented TMDLs for Mercury and PCBs. However, to withhold these adjustments in the interim unnecessarily punishes facilities, such as Chevron, that have taken significant steps to reduce fresh water usage.

The RWQCB, with the adoption of Order R2-2010-0057, provides dilution credit for selenium based on the substantial new information that has become available in the advancement of a selenium TMDL for North San Francisco Bay. The dilution credits granted as part of this Order were significantly restricted to the Basin Plan's minimum requirement of 10:1 for deep water outfalls and then further restricted for Chevron to 8:1 in order to create a limit that was based on the Refinery's current permit limitation for selenium. This dilution is significantly conservative and is not representative of the Refinery's actual dilution. Additionally, it continues to penalize Chevron for having better performance than other facilities.

Since the TMDL science and the RWQCB have established that a 10:1 dilution for selenium is warranted, it is appropriate that effluent limitation adjustments also be afforded comparable to other parameters in which dilution is granted. The potential maximum credits, based on a 20:1 dilution, do not permit Chevron to violate water quality standards. Therefore, beneficial uses are still protected. Moreover, the influent recycled water supplied to Chevron, and the selenium included in that water, would otherwise be discharged to the Bay if not used in the Refinery processes.

Chevron respectfully requests that selenium concentration effluent credits be included in the Tentative Order, consistent with other parameters for which dilution is afforded. In

addition, a maximum effluent adjustment for selenium should be added to Table 8 of the Tentative Order based on the protective dilution factor of 20:1.

Response 3

We have made changes in response to this comment. To ensure that the Water Board is encouraging water recycling, we modified the tentative order to allow Chevron to claim concentration adjustments for selenium. That said, our review of selenium data from municipal wastewater treatment plants shows that it is well below the concentration limits in Chevron’s tentative order. Therefore, it seems unlikely that Chevron will ever be in a position to apply for adjustments to selenium limits.

In addition to changing the term “credits” to “adjustments” throughout the provision because the new term more accurately reflects the allowance, we modified Table 8 as follows:

Table 8. Maximum Recycled Water AdjustmentsCredits

Parameter	Units	Maximum Recycled Water Adjusted Credit Effluent Limitations	
		Average Monthly	Maximum Daily
Cyanide	µg/L	38	90
Copper	µg/L	170	240
Lead	µg/L	13	30
<u>Selenium</u>	<u>µg/L</u>	<u>82</u>	<u>130</u>

We also revised pages F-41 and F-42 of the Fact Sheet as follows:

Consistent with Basin Plan section 4.16 and State Water Board Resolutions 77-1 and 2009-0011, this Order carries over concentration adjustments ~~credits~~ as described in the Discharger’s October 2006 technical report for non-bioaccumulative WQBELs (cyanide, lead, and copper). As ~~selenium and~~ dioxins will be regulated through a waste load allocation in a TMDL, additional concentration adjustments ~~credits~~ for dioxins ~~these bioaccumulative pollutants~~ are not provided in this Order. For selenium, this Order grants a concentration adjustment because recent work has reduced some uncertainties regarding selenium sources, fate, and transport, and suggests that some assimilative capacity remains in the receiving water.

While the Regional Water Board supports the use of recycled water, impacts to water quality must be considered within San Pablo Bay near the discharge location. Thus, it’s appropriate to determine maximum recycled water credits available for the discharge that will be protective of water quality. As explained in section IV.C.4.b of this Fact Sheet, this Order limits dilution to 10:1 for conservative pollutants, 8:1 for selenium, and does not grant dilution for other bioaccumulative pollutants where there is evidence that they are accumulating to unsafe levels in wildlife. However, it may be infeasible for athe Discharger to implement recycled water projects without sufficient adjustments to effluent limits to

account for its use of recycled water credits, thus an appropriate balance that protects the beneficial uses of the receiving water and encourages the continued use of recycled water must be determined. In this case, the Discharger’s dilution study shows a minimum dilution of at least 34:1. Since section 1.4.2.2 of the SIP requires that mixing zones be as small as practicable, it is appropriate to consider a dilution factor smaller than that shown in the Discharger’s dilution study. In this case, a dilution factor of 20:1 is considered reasonable as a balance between encouraging and supporting reclamation, and protecting water quality. The use of a 20:1 dilution is consistent with the development of the maximum allowable concentrations used in the previous Order to become eligible to receive recycled water adjustments credits. Maximum effluent limitations with the application of recycled water adjustments credits have been determined for applicable non-bioaccumulative WQBELs (copper, lead, and cyanide) and selenium. These values have been calculated based on site-specific objectives, effluent data, and receiving water data (as summarized for the calculation of WQBELs in section IV.C.3 of this Fact Sheet) and applied as maximum effluent limitations available when recycled water adjustments credits are applied. The applicable maximum effluent limitations with the application of recycled water adjustments credits are summarized below:

Table F-21. Effluent Limitation Calculations for Discharge Point No. 001

Parameter	Units	Maximum Recycled Water <u>Adjusted Credit</u> Effluent Limitations ^[1]	
		Average Monthly	Maximum Daily
Cyanide	µg/L	38	90
Copper	µg/L	170	240
Lead	µg/L	13	30
<u>Selenium</u>	<u>µg/L</u>	<u>82</u>	<u>130</u>

Chevron Comment 4

Chevron, respectfully, disagrees with the use of a dilution of 34:1 to define the Ammonia WQBEL. Two reports were submitted to the Water Board outlining Chevron’s diffuser’s dilution ability: In-Situ Measurement of Dilution of Chevron Effluent in San Pablo Bay performed by CH2M Hill (CH2M Hill Report) and Richmond Diffuser Field Study and Performance Analysis performed by Flow Science (Flow Science Report).

In 1987, CH2M-Hill performed a dye study to measure the actual dilution achieved at the diffuser, and supplemented the dye study with a theoretical comparison step by using several EPA dilution models to test dilutions under varying conditions. The overall findings of this study found that at a period of the lowest dilutions (measured during slack tides) the actual observed dilution ranged from 214:1 to 206:1 (200:1). Three different software-simulated theoretical dilutions, using the data collected at the time of the observed dilutions, under varying conditions found the modeled dilution to range from 34:1 to 300:1. The modeled dilution was not intended to supersede the direct dilution measurements, but validated the actual dilution by showing it was within theoretical ranges.

The Flow Science Report reviewed and compared the results of the field study to (1) a series of computations to establish the dilution both close to the diffuser and throughout the San Francisco Bay, and (2) the EPA software program derived dilution values. The Flow Science Report found that the dilution within 20 meters of the diffuser was predicted to be in the range of 82:1 to 300:1, depending upon conditions. The 82:1 value represents a worst-case dilution based on actual conditions in the San Francisco Bay (as opposed to theoretical assumptions used by the EPA models that are not representative of actual Bay conditions).

In developing the ammonia limit, the Tentative Order uses the lowest of the theoretical range of the simulated dilutions from the CH2M Hill Report, despite actual dilution measurements and the subsequent review and revisions of the dilution study which provide more applicable theoretical dilution values. Chevron maintains that the use of the lowest theoretical result, as opposed to actual dilution measurement and/or more appropriate model results, is inappropriate, not representative of actual dilution conditions, and arbitrary and capricious.

Based upon the more applicable Flow Science dilution study, Chevron proposes the lowest theoretical dilution using actual Bay conditions as inputs, 82:1, be applied to define the Ammonia WQBEL. This value is a more appropriate, but still very conservative value when compared to actual measured dilution. Additional information to support this position is provided below.

Within the CH2MHill Report, three EPA models, which were available at the time, were utilized: UPLUME, UMERGE, and UDKHDEN. All three were run to help validate the actual dilution measured during the dye test. These models are described in detail in USEPA Initial Mixing Characteristics of Municipal Ocean Discharges: Volume 1- Procedures and Applications.

UPLUME by Baumgartner et al. (1971) simulated a solitary plume in a stagnant environment. Stagnant environment means zero current, which is clearly not applicable to conditions at the diffuser or in the San Francisco Bay and is therefore inappropriate for modeling the dilution. UMERGE by Frick (1981) accounted for interferences of adjacent plumes for a variety of current speeds. UDKHDEN simulated a single plume, which could be merged with identical adjacent plumes in either stagnant or flowing environments with a variety of velocity profiles. Considering the limitations of the models used in the study, the UPLUME model would develop theoretical dilution scenarios that are most dissimilar to actual conditions (23 diffusers along a length of approximately 360 feet and a depth of 30 to 50 feet) of the Refinery's Deep Water Outfall due to immediate mixing effects. Although there were issues with the certain aspects of the program, of the three models used in the CH2M Hill study, UDKHDEN would develop theoretical dilution scenarios most similar to the actual conditions.

Of the dilutions, UPLUME did provide the worst dilution ranging in values from 34:1 to 71:1, but this is no surprise since it assumes static conditions and does not account for

additional turbulence created either by receiving water currents and tides, or by adjacent plumes. UMERGE found dilutions ranging from 62:1 to 403:1. UKDHDEN found dilutions ranging from 88:1 to 389:1. It is also worth noting that in 1994, the modeling community under the direction of the USEPA did not recommend the use of the UPLUME model.

As referenced above, due to the range of the dilution numbers found within the CH2M Hill Study, Chevron contracted Flow Science to review the CH2M Hill Study and apply the specifics of San Francisco Bay to the diffuser in a more detailed study. The Study found that the dilution within 20 meters of the diffuser could be predicted to be in the range of 82 to 300, depending upon conditions, which is comparable to the UKDHDEN simulated studies from the CH2M Hill Report.

For the reasons provided above, Chevron believes that the use of 34:1 is inappropriate given that the model on which the value is based uses conditions not applicable to the Bay, and that the more detailed and representative values from the actual dilution measurements and the Flow Science Study should be used. The use of 82:1 remains a significantly conservative value based on the actual dilution measurements of more than 200:1.

Chevron respectfully requests a dilution of 82:1 be applied to define the Ammonia WQBEL, which was shown to give the best conservative estimate of the dilution based on the simulations and theoretical calculations performed in the Flow Science Study.

Response 4

We have not made changes in response to this comment. The *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California*, states: “A mixing zone shall be as small as practicable.” In our view, applying a dilution factor of 34:1 is still appropriate for ammonia even though it was output from the U-Plume model, which assumes static receiving water conditions. This is because Chevron can easily comply with the water quality based effluent limits for ammonia proposed in the tentative order. This is shown in the table below.

Pollutant	Maximum Effluent Concentration	Average Monthly Effluent Limit	Maximum Daily Effluent Limit
Ammonia (mg/L)	3.3	51	150

As the highest concentration of ammonia in Chevron’s effluent (based on 62 samples) is more than an order of magnitude below the proposed average monthly effluent limit, we do not believe it is reasonable to apply a higher dilution factor that would result in even higher effluent limits for ammonia.

Chevron Comment 5

For Table E-4, the correlation between the Tentative Order and Attachment E Table E-4 is unclear. It is possible to misinterpret the table as requiring Table 10 Supplemental Constituents samples daily during storm events, whether or not Table 9 limits are

triggered. Chevron recommends that a clarifying footnote be included.

Chevron recommends that the following footnote be added to each sampling frequency designated “Daily during storm event” in Table E-4 of the MRP to provide clarification for the Supplemental Constituents (BOD₅, COD, Phenolic Compounds, Total Chromium, and Hexavalent Chromium) found in Table 10.

[3] If and when limits for pollutants in Table 10 of this Order become effective in accordance with Section IV.B.2 of this Order, monitoring shall begin at the outfalls where the limitations are in effect.

Response 5

We modified the tentative order to include this clarification.

Chevron Comment 6

The State Water Resources Control Board (SWQCB) electronic Self Monitoring Report (eSMR) uses predefined names in its database. Chevron has recently put into place changes within internal reporting system for eSMR, including the monitoring locations. The Tentative Order’s MRP uses a different identification convention than the one in place currently (E-001 vs. EFF-001), and upon which the eSMR system is based. Changing the system that has already been setup would create unnecessary confusion and significant effort with no benefit to water quality. Therefore, Chevron requests that the existing outfall identification convention be maintained in the Tentative Order.

Chevron respectfully requests that the outfall identification convention remain the same, so that avoidable rework of both the RWQCB and Chevron data systems does not need to be conducted.

Response 6

We modified the tentative order to incorporate the outfall identification convention currently in place (i.e., E-001 instead of EFF-001).

Chevron Comment 7

The Monitoring Station Location descriptions for discharges at E-002 through E-023 indicate sampling “prior to discharge”, which can be interpreted in various ways.

Chevron respectfully requests clarifying the language for the specified discharges as follows:

*“At any point where a representative sample...can be obtained ~~prior to discharge~~ prior to the discharge **location**.”*

Response 7

We have not made changes in response to this request because the revision suggested is unnecessary. As currently proposed, if Chevron collects a stormwater sample that is not representative of the discharge, this would be considered a violation of the permit.

Therefore, we are unclear as to how the requirement to collect a representative sample “prior to discharge” can be interpreted in different ways.

Chevron Comment 8

Chevron’s current Order specifies that Chevron may sample for Weak Acid Dissociable Cyanide, in lieu of Total Cyanide.

[10] The Discharger may, at their option, analyze for cyanide as Weak Acid Dissociable Cyanide using protocols specified in Standard Method Part 4500-CN-I, USEPA Method OI1677, or equivalent alternatives in latest edition. Alternative methods of analysis must be approved by the Executive Officer. [Excerpted from Order 2006-0035, Table E-3]

The above footnote was not included in the Tentative Order, without explanation. Weak Acid Dissociable Cyanide represents the “free” cyanide in the discharge, which is the bio-available portion of Cyanide in a Total Cyanide sample. Chevron maintains that “free” cyanide remains the appropriate measure, and requests that a similar footnote be included in the Tentative Order.

Chevron respectfully requests the inclusion of the above note in Attachment E §IV Table E-3 of the Tentative Order.

Response 8

We have not made changes in response to this comment. Applicable analytical methods are included in Table C of Attachment G (page G-28 of the tentative order). For cyanide, Standard Method 4500 CN-I is listed as an acceptable method.

Chevron Comment 9

Per 40 CFR136 Table II and Method 1664A, Oil and Grease is required to be a grab sample. If a composite sample is required, Method 1664A states it should consist of grab samples that are averaged after they are analyzed. Considering that there is a 5- to 15-day residence time in the Biologically Aggressive Treatment system, the outlet is already well-mixed. This makes a grab sample, at any given time, a representative composite sample of the discharge. As a result, three grab samples taken through a day would not give a more representative result of the discharge as compared to a single grab sample.

In addition, based on the last five years worth of monthly samples results, Chevron’s discharge of Oil and Grease at E-001 has been Not Detected 67.2% of the time, Detected but Not Quantified 29.5%, and reliably quantified only 3.3%. The MEC from the last five years of monthly sampling was 3.5 mg/L versus a ML of 3 mg/L which represents one of only two values that were detected and quantified, which can be seen in Appendix C. Chevron believes the extra samples which make up the “composite” sample are unnecessarily burdensome and without value as compared to a single grab sample of an already well mixed water stream.

Chevron respectfully requests that the Oil and Grease sample in Table E-3 be designated

as a grab sample and that Footnote 4 of Table E-3 be removed.

Response 9

We modified Table E-3 to change the sample type for oil and grease from composite to grab.

Chevron Comment 10

Chevron conducts storm water compliance sampling using certified laboratory personnel, however, these individuals generally only work during normal business hours (i.e. M-F, 8-5). During storm situations, particularly at specific discharge locations, obtaining storm water samples outside this time would often require non-certified personnel to obtain the samples during potentially dangerous conditions (e.g. dark areas, slippery conditions, etc.) near outfall locations, raising potential personnel safety concerns. Chevron requests that the requirements be clarified to only require sampling when the laboratory is normally staffed.

Due to safety considerations, as well as the current operational and sampling system in place, Chevron respectfully requests that the following footnote be added to Table E-4.

[4] Samples for discharges shall be collected during periods when the laboratory is normally staffed at least twice during the Storm Season.

Response 10

We have made changes in response to this request. We agree that safety concerns are an issue when collecting stormwater samples at night; however, this is only applicable to sheet flow discharges (i.e., stormwater that is not collected and retained in basins prior to discharge). For stormwater discharges from basins, Chevron has the ability to control discharges so it can collect samples. Therefore, we revised Table E-4 of the tentative order to include the following footnote:

[4] Sampling at least twice during the storm season for storm runoff discharges that do not drain to basins shall be during periods when the laboratory is normally staffed.

Chevron Comment 11

Table E-6 of the MRP includes additional new monitoring requirements for salinity and hardness in the receiving water. Chevron understands and agrees with the RWQCB that new information for background receiving water is needed. However, §VI.C.2.b of the Tentative Order requires Chevron to collect monitoring data necessary to perform reasonable potential analyses and to calculate effluent limitations. The collection of this background data is already conducted by the Regional Monitoring Program (RMP) and as outlined in the Fact Sheet (p. F-45), Chevron is currently required to participate in and fund the RMP. For these reasons, Chevron should have the option to use the RMP collection effort for this information where available and appropriate.

Table E-6 of the MRP also increases the minimum required frequency of receiving water sampling from annual to quarterly. Receiving water data collected as part of the existing monitoring requirements have not resulted in any concentrations or demonstrated any

increases that warrant an increase in sampling frequency. Furthermore, sampling events at the Refinery's receiving water are logistically difficult since the only access to the sample location is by a marine vessel. This four-fold increase in sampling constitutes a significant burden, does not appear warranted by historic data, and appears to be primarily for obtaining background information for future permit renewals. Also, Chevron believes that the vast body of data that already exists is sufficient for supporting the RWQCB's duties with respect to this Tentative Order. Therefore, Chevron requests that the monitoring frequency be reduced to be more commensurate with the burden and need for the data.

In addition to the above, the data provided in Table E-6 of the MRP is confusing as there is no table header and the footnotes appear to be unmatched.

Chevron respectfully requests the following revisions:

Add the following footnote to salinity and hardness parameters in Table E-6 clarifying that the parameters can be collected as part of an ambient monitoring program, such as the RMP, at a sample location at or near the Refinery's outfall.

[2] Parameter, at the Discharger's discretion, can be sampled as part of an ambient monitoring program, at a point where it reasonably represents the receiving water in the vicinity of the Discharger's outfall.

- *Revise the minimum sampling frequency for all parameters in Table E-6 to annual*
- *Add a header row to Table E-6. In addition, the right column of the table should be deleted since the references are not valid.*

Response 11

See Response 1 to WSPA. Additionally, we added a header row to Table E-6, and deleted the references column.

Chevron Comment 12

Chevron is currently submitting eSMR data as required per the RWQCB's implementation of the eSMR program. However, should issues arise with the ability to properly and reliably report compliance data electronically, Chevron requests that the RWQCB add language to the Tentative Order that would allow paper reporting in the event of problems with the electronic reporting system.

Chevron respectfully requests the following modification to the Tentative Order.

*The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS website will provide additional directions for SMR submittal in the event of a service interruption for electronic submittal. **In addition, at the Discharger's option,***

paper submittals may be used when necessary or prudent to back up the eSMR data to demonstrate compliance.

Response 12

We have not made changes in response to this comment. As we are in the initial phase of requiring electronic submittal of self-monitoring reports, we recognize it may be necessary for a discharger to submit paper copies to demonstrate compliance; however, dischargers cannot shift between electronic and paper submittals at their own discretion. The tentative order already indicates that if there is a service interruption for electronic submittals, directions with additional instructions will be provided. There is nothing in the tentative order that precludes Chevron from submitting paper copies of its SMRs when it believes this is necessary to demonstrate compliance. Therefore, the proposed language is unnecessary.

Chevron Comment 13

The Bypass Requirement in Attachment E is inconsistent with the Bypass Requirements of Attachment G (Bypass Provisions, Section III.A.3.b). Such inconsistencies can create confusion. Therefore, Chevron requests that these provisions be made more consistent.

Chevron respectfully requests replacing the Bypass Requirements in the MRP with the Bypass language in the Standard Provisions per Attachment G to maintain consistency.

Response 13

We have not made changes in response to this comment. This supplemental requirement is necessary because the language in Attachment G (Bypass Provisions, Section III.A.3.b(6)) only applies to dischargers for whom the Regional Water Board has approved bypasses under very limited circumstances. These include Publicly Owned Treatment Works that blend partially with fully treated wastewater during wet weather. However, because this language in Attachment G may suggest that Chevron could be subject to this narrow allowance during approved essential maintenance bypasses, the additional language in the MRP is necessary to ensure that Chevron would be required to collect enough water quality data to show compliance or noncompliance with its permit.

Chevron Comment 14

The term “former Chevron Chemical Company” appears in a multitude of different locations; Chevron would like to add in clarifying language as to which sites pertain to the discussion.

*Chevron suggests the following additional language be added to the description on page F-4 of the Fact Sheet. “The former Chevron Chemical Company **Hensley Street and Castro Street Facility** managed by Chevron Environmental Management Company is comprised...”*

Response 14

We modified the tentative order to include this change.

Chevron Comment 15

The Regional Board requested an estimate of incidental water that could be left in the North Yard impound basin after transfer to biological treatment. This typically occurs during the dry season. That amount was estimated to be 5,000 gallons. However, the Fact Sheet represents this value as a maximum quantity. The amount provided was merely an estimate and should be considered as such, not a maximum value. Chevron requests that this be clarified in the Fact Sheet.

Chevron respectfully requests the new language modification for clarification and accuracy.

“This controlled discharge consists mainly of stormwater, but other potential non-stormwater sources include ~~incidental quantities estimated quantities of no greater than about of~~ 5,000 gallons of steam condensate, non-contact bay water, groundwater seepage, hydrotest water, and water from fire protection systems that ~~remains may remain in the basin~~ and mixes with stormwater during the controlled discharges. Hydrotest water is routed to the basin prior to being sent to the ABTU.”

Response 15

We modified the tentative order to include this correction.

Chevron Comment 16

As requested during development of the Tentative Order, Chevron submitted raw dioxin and congener data as requested by RWQCB for the Reasonable Potential Analysis (RPA) which included TEQ calculated values, estimated values, minimum level, and minimum detection levels. The data provided showed that all effluent discharged Dioxin-TEQ calculated data was zero. This TEQ calculation is in accordance with Regional Standard Provisions, V.C.1.c. (3), Dioxin-TEQ Reporting, which states “the Discharger shall set congener concentrations below the minimum levels (ML) to zero”.

The RPA appears to have been done utilizing the lab estimated (J-flagged) values for the MEC in Step 3 of the RPA rather than the Dioxin-TEQ values calculated in accordance with the RWQCB’s own standard provisions. Additionally, Section 1.3 of the SIP requires that the data used to determine RPA be both valid and representative. However, estimated values are levels that could not be accurately quantified, and therefore do not constitute valid or representative data. Therefore, consistent with the Regional Standard Provisions and the SIP, Reasonable Potential should be triggered by background data, not by maximum effluent concentrations. While there is no impact to the finding of RPA for Dioxin-TEQ, Chevron believes that the Fact Sheet should accurately reflect the basis for RP consistent with the SIP.

Chevron respectfully requests that the Fact Sheet (p. F-34) show reasonable potential for Dioxin-TEQ to be triggered due to background data, not due to maximum effluent concentration (MEC) data.

Response 16

We have not made changes in response to this comment. In determining whether or not we should include numeric effluent limits for a pollutant in a permit, we consider estimated values to be a more valid representation of a pollutant than simply assuming the pollutant is not present. This is consistent with the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (SIP), which gives discretion to Water Board staff. It states: “The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy.” In this case, we believe the use of estimated values for determining whether or not to set effluent limits is more appropriate than assuming the pollutant is not present.

The Regional Standard Provisions referred to by the commenter, which directs estimated values be set equal to zero for dioxin-TEQ, is for the sole purpose of ensuring that noncompliance is not driven by estimated values. This is consistent with Section 2.4.5 of the SIP, which indicates that for compliance purposes, “Dischargers shall be deemed out of compliance with an effluent limitation, if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.” In other words, we do not use estimated values for evaluating noncompliance with permit limitations. However, this does not mean that estimated values should not be used to determine whether or not a discharge has the reasonable potential to cause or contribute to an excursion above a water quality objective.

Chevron Comment 17

Chevron has reviewed the RMP data available at BD30, Pinole Point Location, for hardness and disagrees with staff’s decision to use a hardness value of 59 mg/L as representative data of the receiving water at the vicinity of the discharger’s deepwater diffuser in the San Pablo Bay.

The Tentative Order uses the minimum value for hardness found in the RMP dataset. There is no basis for using only the minimum value contained in the dataset. To the contrary, Section 1.2 of the SIP which addresses the hardness adjustment specifically states that the Regional Board “shall use all available, valid, relevant, representative data and information”. (Emphasis added.) Using only the minimum value of 59 mg/L is clearly not representative of actual conditions and is contrary to how hardness has been used in recently adopted permits for similar facilities. See Table 1 in Appendix A. Chevron believes this is an example of it being regulated more stringently than some of its competitors.

Hardness is a function of calcium and magnesium ion concentrations, expressed as calcium carbonate. San Pablo Bay is an estuarine body, significantly influenced by ocean water entering the bay system via the Golden Gate in response to tides. The ocean typically contains 1,272 mg/L of magnesium and 400 mg/L of calcium. Based on these

concentrations, the ocean would have a theoretical hardness of 6237 mg/L, as calcium carbonate. As you move further inland, the hardness would be expected to reduce. A comparison was done, using hardness from other refinery NPDES permits. The comparison shows that data used in recent NPDES permits further inland of the Richmond Refinery utilized higher hardness values to calculate the criterion for metals, even though actual measured hardness is clearly lower than would be present in the area of Chevron's discharge. Normally, this hardness value was calculated from a geometric mean, not simply the lowest observed value. This comparison of the RMP station data and hardness data used in NPDES permits can be found in Appendix A, Table 2.

Per 40 CFR§131.38(c)(4), the minimum hardness allowed for use in equations to calculate aquatic life criteria for metals should not be less than 25 mg/L or greater than 400 mg/L as calcium carbonate, even if the actual ambient hardness is greater than 400 mg/L. In this case, the data available from the RMP station indicates that the ambient hardness conditions are greater than 400 mg/L; therefore, the maximum hardness value allowed should be used to calculate the criterion. This approach would clearly remain very conservative since the data shows actual hardness is significantly above that level. The aforementioned RMP data set is attached as Appendix A, Table 2, which shows hardness values which range from a minimum 59 mg/L to a maximum of 4495 mg/L with a mean of 2717 mg/L and a median of 3050 mg/L.

These facts suggest that a value of 59 mg/L for hardness does not provide an appropriately representative characterization of the receiving water, does not utilize all available, valid and relevant data as required by the SIP, and is contrary to how metals limits in recent permits for similar facilities were calculated.

Although Chevron believes that the maximum hardness value allowed by the CTR should be utilized in the Tentative Order, in the effort to be conservative, Chevron respectfully requests that the geometric mean of 154 mg/L from the RMP Station data be used in the Reasonable Potential Analysis to define the Water Criterion. This change will not substantially modify the results of the Reasonable Potential Analysis with exception to lead. Chevron proposes that the limit for lead be removed since the hardness data would modify the Criterion used within the Reasonable Potential calculation and Chevron would not trigger Reasonable Potential.

Response 17

See Response 2 to WSPA.

Chevron Comment 18

In multiple areas of the Tentative Order the crude oil throughput value is rounded. Chevron recommends modifying the current number of 243,970 bbls/day found in §IV.B.2a.i to 244,000 bbls/day to maintain consistency through the permit.

Chevron respectfully requests that the current number be rounded to 244,000 bbls/day.

Response 18

We modified the tentative order to include this change.

Chevron Comment 19

Chevron respectfully requests the following corrections:

Typo, [§IV.A.6., p. 15]

*“...shall be granted in the discharge according **to** the following procedure:”*

Typo [§V.B.2, Pg. D-5]

*“All permit applications shall be signed by a responsible corporate officer. For.... ~~ling~~
long term environmental compliance with environmental compliance with environmental laws and regulations...”*

Response 19

We modified the tentative order to correct these typographical errors.

IV. San Francisco Baykeeper (Baykeeper)

Baykeeper Comment 1

As written, the Tentative Order’s effluent limitations for Chevron’s stormwater outfalls are based solely on the Environmental Protection Agency’s (“EPA”) guidelines for stormwater discharges at 40 C.F.R. § 419 Subpart B. F-42. However, the parameters regulated under 40 C.F.R. § 419 Subpart B are not the only parameters that must be regulated by this permit. According to 40 C.F.R. § 122.44(d)(1)(i), permits must include:

[A]ny requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.

(i) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.(emphasis added). While the Tentative Order conducted a reasonable potential analysis for wastewater discharges from Discharge Point 001, it did not conduct any reasonable potential analysis for stormwater discharges from Discharge Points 002 – 023.

The Clean Water Act prohibits the Tentative Order from establishing effluent limits without such analysis. Id. This requirement is consistent with the statewide Industrial Stormwater Permit. According to section (B)(5)(c) of the statewide permit, "samples shall be analyzed for . . . [t]oxic chemicals and other pollutants that are likely to be present in storm water discharges in significant quantities." Chevron's individual permit should not be less stringent than the general statewide permit under any circumstances. Chevron's stormwater discharges must meet all receiving water limits, and may not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 C.F.R. Part 117. According to the Tentative Order, "[t]he Discharger reported 24 spills of toxic or hazardous pollutants at the Facility between July 9, 2007, through November 29, 2010." F-15. Since it is reasonable to assume that such spills have the potential to contaminate stormwater, and that there may have been additional unreported spills, the Tentative Order must require Chevron to test its stormwater for hazardous pollutants. The monitoring data for Discharge Points 002 – 023 referenced in the Tentative Order shows exceedances of both 1) EPA Benchmarks and 2) the proposed Supplemental Effluent Limitations for Stormwater Outfalls for TSS, pH, and specific conductance. F-11 to F-15. Since there are known hazardous spills on site and monitoring has shown exceedances of TSS, pH, and specific conductance, it is reasonable to conclude that Chevron's stormwater discharges have the potential to contain hazardous substances in reportable quantities under 40 C.F.R. 117, and may also contain priority pollutants that threaten receiving water limits. Therefore, the Regional Board must revise the Tentative Order to include an analysis of all pollutants that have the reasonable potential to cause exceedances of state water quality standards.

Response 1

Based on Chevron's current operations and management practices, we do not expect stormwater at Chevron's designated stormwater discharge locations to be contaminated. This is because Chevron routes all stormwater from process areas to its wastewater treatment plant. Also, of the 24 spills mentioned by the commenter, only 3 occurred within the footprint of stormwater discharges (two within the footprint of Discharge Point 018 and one within Discharge Point 019). To minimize the potential for cross-contamination of stormwater, Chevron isolated these spills and removed any affected soil. Therefore, we do not expect these spills to have caused cross-contamination of stormwater. Further, consistent with best management practices, Chevron is required to store materials such as process feedstocks, final products, or waste materials in a way that would not allow for exposure to stormwater at any of its stormwater discharge locations.

While we do not expect stormwater to be contaminated, we agree that it is reasonable to conduct more monitoring. The most recent priority pollutant data in our records for Chevron's stormwater outfalls are from 1997. Since these data are more than ten years old, they are unlikely to be representative of current conditions. For example, the mercury results are useless because Chevron collected these data before ultra-clean sampling techniques became a requirement. Non-ultra-clean samples and analyses are known to be subject to contamination by sample bottles, reagents, and analytical equipment. However,

the results did show that most of the other priority pollutants were nondetect, which supports our belief that the stormwater discharges are likely to be uncontaminated.

Therefore, we revised the tentative order to include priority pollutant monitoring twice during the permit term at select stormwater outfalls. Because Chevron has over 20 stormwater outfalls, we believe it is reasonable to limit priority pollutant monitoring to outfalls that are most likely to be of concern. Based on our review of management practices and the expected composition of stormwater at select outfalls, we revised the tentative order to include priority pollutant monitoring twice during the permit term at Discharge Points 003, 008, 009, 018, and 019. All of these discharge locations either contain non-stormwater sources or include activities (e.g., storage tanks and pipelines) that increase the potential for cross-contamination of stormwater.

Baykeeper Comment 2

In order to ensure that Chevron's discharges meet applicable water quality standards, the Tentative Order must require Chevron to test for priority pollutants at Discharge Points 002 – 023. Why has the TO initially proposed priority monitoring at only discharge points 011 and 013? E.6. The Tentative Order must include priority pollutant monitoring for each outfall, not just discharge points 011 and 013, as proposed in Monitoring and Reporting Program. Table E-5. Similarly, the Tentative Order must require sampling at each stormwater outfall, not just at Discharge Points 002 – 003, 008 – 010, 012, 014, and 017 – 023. E-6.

Response 2

See Responses 1 and 3 to Baykeeper.

Baykeeper Comment 3

The Tentative Order does not explain which factors, if any, were used by the Regional Board to consider whether areas owned by Chevron are industrial in nature. In determining whether to regulate stormwater discharges from an area as industrial stormwater discharges, “[i]t is not necessary that stormwater be contaminated or come into direct contact with pollutants; only association with any type of industrial activity is necessary.” NRDC v. EPA, 966 F.2d 1292, 1306 (9th Cir. 1992). This is true even where an area is no longer open, as, for example, the area discharging to Discharge Point 012. See Am. Mining Congress v. EPA, 965 F.2d 759, 772. Consistent with the CWA's broad intent to regulate any stormwater discharges associated with an industrial facility, the Tentative Order's Fact Sheet should explain the nature of activities on site that it contends are not industrial in nature.

Response 3

We have made changes in response to this comment. Consistent with the Effluent Limitation Guidelines for the Petroleum Refining Point Source Category, all stormwater discharge points are regulated under the tentative order. In the tentative order, we chose not to include sampling requirements for discharge points 004-007 because these locations are in a remote area of the refinery that has not contained any sort of industrial activity since 1996 (Fact Sheet, page F-12). Despite this, we revised the tentative order to include monitoring once during this permit term for pH, total organic carbon, oil and

grease, total suspended solids, and specific conductance. This will be adequate to ensure that these areas continue to meet established effluent limit guidelines.

Baykeeper Comment 4

The Tentative Order appears to impermissibly permit bypass of untreated wastewater from Discharge Point 011 during extreme storm events. According to the Tentative Order, “during periods of high intensity rainfall (i.e., in excess of a 25-year, 24-hour rainfall event), a limited quantity of stormwater from the drainage area may be discharged from the Castro Acres surge pond into Castro Creek via a drainage ditch on the east side of Castro Street, identified as Discharge Point No. 011.” F-7.

Bypasses are illegal except in very narrowly defined circumstances, including when necessary to prevent substantial damage to life or property or for essential maintenance. 40 C.F.R. § 122.41(m). Anticipated bypasses may be allowed if they meet all requirements set forth in 40 C.F.R. § 122.41(m)(4), which requires, in part, that no feasible alternatives exist. Thus, the Tentative Order can only approve anticipated bypasses after analysis and implementation of all feasible alternatives. Further, it is unclear what, if any, monitoring is required for this discharge to determine whether water quality standards are met. Since the Tentative Order does not contain such information, the Regional Board should omit this exception.

In addition, the Tentative Order does not clearly indicate when Chevron may discharge into Castro Creek via Discharge Point 013. F-7. Discharge prohibition III.E allows discharges from Discharge Point 013 “when it has been demonstrated to the satisfaction of the Executive Officer it contains only stormwater that will not cause or contribute to an exceedances of water quality standards.” Tentative Order, 11. Instead, the Tentative Order must include specific discernable sampling and reporting requirements for this stormwater before and after any such discharge is authorized. Without such revisions, implementation of the permit is left to the sole discretion of the Executive Officer with no opportunity for public review or oversight to ensure all water quality standards are met.

Response 4

We have not made changes in response to this comment. We do not view discharges from Discharge Point 011 as constituting a bypass. The purpose of this discharge basin is to collect stormwater, and other non-stormwater low threat sources such as groundwater, irrigation water, and potable water, and offer treatment via physical settling. Discharge Prohibition III.D of the tentative order only allows discharges from Discharge Point 011 in extreme storm events (i.e., 24-hour, 25-year rain event). Before discharge, Chevron is required to sample for all priority pollutants (see Table E-5 of the Monitoring and Reporting Program), which must comply with Receiving Water Limitation V.C. “The discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the CWA and regulations adopted thereunder.”

On Discharge Point 013, we believe it is clear when discharges are allowable. Again, prior to discharging, Chevron must monitor for all priority pollutants (at least annually,

see Table E-5 of the Monitoring and Reporting Program). In cases where priority pollutants do not meet Receiving Limitations V.C described above, the Executive Officer would not approve such discharges (see Discharge Prohibition III.E) as they would be in violation of Receiving Water Limitation V.C described above.

Baykeeper Comment 5

The Tentative Order permits Chevron to discharge wastewater to an adjacent wetland, and divert some wetland discharge through granular activated carbon before discharging at Point 001, and allows up to 3 MGD of wetland discharge to bypass the granular activated carbon and discharge directly to receiving waters. Tentative Order, 26. It is unclear from the Tentative Order what effluent limits apply to each discharge, but these discharges should not be exempt from the same wastewater effluent limitations that apply to discharge point 001. For discharges that bypass the carbon treatment, the Tentative Order states that the discharge may not cause acute toxicity, but mentions no other water quality standards or effluent limits. Tentative Order, 6. The permit must include effluent limits and sampling requirements to ensure that in every event, discharges of wastewater through the wetlands meet water quality standards.

Response 5

We have made changes in response to this comment. As the commenter points out, Chevron has the option to discharge up to 3 MGD of treated wastewater from its wetland directly to receiving waters provided the wetland discharge does not cause acute toxicity. We recognize that the tentative order is unclear as to how the wetland discharge is regulated for other pollutants besides acute toxicity. To clarify, if Chevron routed its wetland discharge around GAC units, it would be combined with wastewater treated by GAC prior to discharge to San Francisco Bay. In other words, Chevron's sampling station is located downstream of where the wetland discharge and GAC treated wastewater would be combined. To make this clear, we revised the last sentence of the first paragraph on page F-5 as follows:

The Discharger has the option to discharge a portion of wetland effluent directly to Discharge Point No. 001 (downstream of the GAC facility) at a point prior to where representative samples for all parameters with effluent limits can be collected on the combined discharge, provided wetland effluent discharges do not exceed a daily maximum of 3 MGD, and do not cause acute toxicity.

Baykeeper Comment 6

Table F-19 of the Tentative Order indicates that neither a maximum effluent concentration (MEC) or maximum background concentration is available for Total PAHs, thereby precluding a Reasonable Potential Analysis (RPA) for this parameter or its individual constituents. It is not clear why this is the case, since a review of Regional Monitoring Program (RMP) data, through the San Francisco Estuary Institute's Web Query Tool, indicates a robust dataset for Total PAHs and the individual constituents that comprise this parameter from throughout the estuary. Further, elevated values for Total PAHs have been detected from San Pablo Bay, in the vicinity of the Permittee. Given the strong potential for refineries to discharge PAHs to the San Pablo and San

Francisco Bays it seems reasonable to, at a minimum, require monitoring for a suite of PAHs from both wastewater and stormwater discharges.

Response 6

We have made changes in response to this comment. We updated page F-28 of the Fact Sheet to correct the water quality objective for PAHs. It should be 15 µg/L instead of 0.0088 µg/L. We also corrected the Fact Sheet to include 0.54 µg/L as the maximum effluent concentration for total PAHs. The tentative order only included maximum effluent concentrations for individual PAHs. As shown in the table below, we summed these individual concentrations to obtain a value for total PAHs:

Pollutant	Maximum Effluent Concentration (µg/L)
Acenaphthene	<0.03
Acenaphthylene	<0.02
Anthracene	<0.02
Benzo(a)anthracene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(ghi)perylene	0.03
Benzo(k)fluoranthene	<0.02
Chrysene	<0.02
Dibenzo(a,h)anthracene	<0.02
Fluoranthene	0.11
Fluorene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Naphthalene	<0.02
Phenanthrene	0.06
Pyrene	0.09
Total PAHs¹	0.54

¹ In summing total PAHs, we assumed that nondetect values equaled the detection limit. Even with this conservative assumption, total PAHs equaled 0.54 µg/L. This is well below the water quality objective of 15 µg/L. Therefore, Chevron's discharge does not trigger reasonable potential for total PAHs.

Baykeeper Comment 7

According to Attachment G of the Tentative Order, Chevron must have two emergency planning documents: 1) a Contingency Plan that details procedures for maintaining Chevron's operations in the event of an emergency situation, and 2) a Spill Prevention Plan to prevent accidental discharges and minimize the effects of such events. G-3 to G-4. Considering the earthquake-prone nature of the Bay Area, it is extremely important that Chevron is designed to mitigate the effects of an earthquake or tsunami, and is prepared to respond to a subsequent oil spill. Chevron's WDR also states that earthquakes could occur along the Hayward, San Andreas, and Calaveras faults, which pose a threat to the refinery, but the Order does not contain any seismic safety prescriptions. WDR page 11. In response to Baykeeper comments on this issue, the Regional Board revised Chevron's WDR to state that "Chevron routinely and systematically reviews all process facilities for potential hazards, including a seismic

review of appropriate strictures. In accordance with Federal, State and Local requirements, Chevron also maintains a facility emergency response plan and tsunami contingency plan for the Richmond Long Wharf." However, this addition, as with the draft TO, does not include any Regional Board or public oversight to determine the adequacy of Chevron's plans to mitigate the foreseeable adverse impacts resulting from natural disasters at the facility. Therefore, the Draft Permit should require public submission of these plans the Board for review and approval. This independent review by an outside entity would ensure that the Contingency Plan and the Spill Prevention Plan adequately prepare Chevron for an unanticipated emergency situation.

Response 7

We have not made changes in response to this comment. We already have the discretion to request and review these reports for adequacy, and the consequences of Chevron failing to develop an adequate Contingency or Spill Prevention Plan are severe. Please be aware that the requirement for a Contingency Plan extends from Regional Water Board Resolution No. 74-10. Resolution No. 74-10 includes specific components that must be included in a contingency plan and indicates that the discharge of pollutants in violation of an NPDES Permit where a discharger has failed to develop and implement a contingency plan will be the basis for considering the discharge a willful and negligent violation of the Permit and action pursuant to Section 13387 of the California Water Code. Violations of Section 13387 of the Water Code may subject the legally responsible official to criminal prosecution.

As for the comment about needing review and oversight by an outside entity, adding such a requirement would add complexity and unnecessary layers of regulation, since all submissions are already part of the Regional Water Board's public records and available for review by any outside entity. Also, an appropriate outside entity that would add value to such a process is unknown at this time.

Baykeeper Comment 8

The Tentative Order derives the technology-based effluent limitations for Discharge Point 001 based on Chevron's refinery average production rates from May 2007 to April 2008. F-4, F-1-1. To promote transparency, the Tentative Order's Fact Sheet should list Chevron's current processing rate and indicate why the order relies on rates from 2007 to 2008.

Response 8

We have made changes in response to this comment. We revised page F-4 of the Fact Sheet to state:

The Discharger reported that from May 2007 through April 2008 the refinery had a crude-run throughput of approximately 244,000 barrels per day (bbls/day). Refinery production rates can fluctuate for a variety of reasons, including maintenance shutdowns. Nonetheless, these data are consistent with more recent production data in 2010 of 228,000 bbls/day.

We used production rates from May 2007 through April 2008 because in its Report of Waste Discharge, dated December 7, 2010, Chevron identified this as the period of maximum crude throughput over the last four years. To calculate production-based effluent limits, 40 CFR Part 122.45(b)(2) states: “Except in the case of POTWs or as provided in paragraph (b)(2)(ii) of this section, calculation of any permit limitations, standards, or prohibitions which are based on production (or other measure of operation) shall be based not upon the designed production capacity but rather upon a reasonable measure of actual production of the facility.”

The Water Board has chosen to use the highest year of production out of the last four years as a reasonable measure of actual production at Chevron. This is consistent with U.S. EPA’s *Guide for the Application of Effluent Limitations Guidelines for the Petroleum Refining Industry* (June 1985), which includes example permit calculations using the highest year of production.

Baykeeper Comment 9

Discharge point 002 is given effluent limitations based on stormwater discharges (TO 17, F-11), but actually contains wastewater (F 5, “This controlled discharge consists of biologically-treated wastewater drawn from the wastewater treatment system. Richmond Long Wharf discharges may also consist of bay water, residual steam condensate, and activities related to water rinsing the exterior of the Richmond Long Wharf pipelines.”) Why is this outfall regulated as a “stormwater outfall” if it discharges wastewater? We have the same question for discharge point 003. (F-6.) We believe that all wastewater discharges should most likely meet the same effluent limits established for discharge point 001, unless a separate reasonable potential analysis dictates otherwise.

Response 9

We have not made changes in response to this comment. Discharge points 002 and 003 contain small amounts of treated wastewater because Chevron uses biologically-treated wastewater instead of potable water for use in the firewater system and for routine tasks such as hydrotesting to maximize water recycling.

In the case of Discharge Point 002, Chevron discharges a portion of biologically-treated wastewater used for testing of the firewater system directly to San Francisco Bay. Most of the biologically-treated wastewater that Chevron uses for the testing of the firewater system is routed back to its wastewater treatment plant. However, a small portion (near the Richmond Long Wharf) is discharged directly to San Francisco Bay. This is necessary because, in order to properly test these fire monitors, firewater must be discharged through the monitors in the same way as an emergency operation. Further, it is unlikely to have a water quality impact because it occurs over such a short duration (i.e. for about 10 minutes, once per week). As the use of biologically-treated wastewater for firewater testing saves vast quantities of potable water resources and the quantity discharged at 002 is relatively small, we believe it is appropriate to continue to allow such discharges under simpler stormwater requirements than under the full burden of wastewater requirements. We have revised the Fact Sheet to more completely describe this discharge.

In the case of Discharge Point 003, Chevron discharges a portion of biologically-treated wastewater that has been used for hydrotesting pipes. Again, most of the biologically-treated wastewater used for hydrotesting is routed to Chevron's wastewater treatment plant. This means that Chevron saves a much larger quantity of potable water than is discharged to the Bay. Further, this discharge is also unlikely to have a water quality impact. This is because it is subject to treatment via physical settling and mixed with much larger quantities of stormwater prior to discharge.

On balance, we believe that it is appropriate to continue supporting Chevron's use of biologically-treated wastewater in the facility's firewater system and for hydrotesting. This is consistent with our Basin Plan, which states, "The Water Board recognizes that people of the Region are interested in developing the capacity to conserve and recycle water to supplement existing water supplies, meet future water requirements, and restore the Region's watersheds and Estuary. Disposal of wastewater to inland, estuarine or coastal waters is not considered a permanent solution where the potential exists for conservation, water recycling, and reuse."

Finally, we believe that stringent application of effluent limits at each point where small quantities of recycled water may be released would discourage its use overall and result in significant use and loss of fresh potable water. This would be inconsistent with our policy of promoting water recycling.

V. City of Richmond (City)

City of Richmond Comment 1

The City points out that the Tentative Order is not up to date with stormwater requirements in the Bay Area. Specifically, the City indicates that it does not address provisions C.3 and C.6 of the Municipal Regional Permit (Order No. R2-2009-0074) and the recent State General Construction Permit for stormwater.

The City would like the Tentative Order to be more clear and mirror standard practices that are required for development and construction sites within the City limits.

Response 1

We have made changes in response to this comment. First, we want to point out that the tentative order addressed the State Water Board's General Construction Permit for Stormwater. The Fact Sheet (page F-5) indicates that the tentative order would cover such discharges provided construction occurred within the footprint of controlled discharge points. This means construction activities that occurred within areas where stormwater is routed to Chevron's wastewater treatment plant or to earthen basins that provide physical treatment via settling would not require Chevron to obtain separate coverage under *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* Order No. 2009-0009-DWQ, provided Chevron updated its

Stormwater Pollution Prevention Plan to show an equivalent level of protection. However, in areas where stormwater discharges without treatment (via sheet flow), Chevron is required to obtain coverage under Order No. 2009-0009-DWQ should it initiate construction activities.

As the commenter points out, the tentative order did not address C.3 and C.6 requirements of the Municipal Regional Permit (Order No. R2-2009-0074). To ensure that Chevron implements measures required by other industry and to more fully document when it must obtain separate coverage under Order No. 2009-0009-DWQ, we added the following provision to the tentative order.

Provision C.4e Construction and Development Requirements for Stormwater

These requirements apply to development and construction activities that occur in areas where stormwater is not subject to physical treatment. These requirements do not apply to stormwater that drains to Chevron's wastewater treatment plant or stormwater that is treated in earthen basins via physical settling.

In areas where stormwater is not subject to physical treatment, the Discharger shall obtain coverage under NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ.

For potential development in areas within Chevron's refinery that discharge to Discharge Point 020 (City of Richmond's Pump Station), the Discharger must also comply with the City of Richmond's specifications and planning authority so that the City is in compliance with the requirements contained in Provisions C.3 and C.6 of Municipal Regional Storm Water Permit Order No. R2-2009-0074, NPDES No. CAS612008.

VI. Revisions Initiated by Regional Water Board Staff

The revisions below reflect additional changes that add clarity to findings, and that provide consistency among recent NPDES permits with provisions for statewide electronic reporting.

Provision VI.C.2a

Effluent Characterization Study and Report – Discharge Points 001, 003, 008, 009, 018, and 019

~~Special Studies and Additional Monitoring~~ **Effluent Characterization Study and Report—Discharge Points 001, 003, 008, 009, 018, and 019**

a. Study Elements ~~Effluent Characterization Study~~

The Discharger shall continue to characterize ~~monitor~~ and evaluate ~~the~~ discharge from the following discharge points to verify that the “no” or

“cannot determine” reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall collect representative samples of the discharge at the following monitoring stations, as defined in the MRP (Attachment E), at no less than the frequencies specified below:

<u>Discharge Point</u>	<u>Monitoring Station</u>	<u>Frequency</u>
<u>001</u>	<u>E-001</u>	<u>2/year</u>
<u>003</u>	<u>E-003</u>	<u>2/5 years^[1]</u>
<u>008</u>	<u>E-008</u>	<u>2/5 years^[1]</u>
<u>009</u>	<u>E-009</u>	<u>2/5 years^[1]</u>
<u>018</u>	<u>E-018</u>	<u>2/5 years^[1]</u>
<u>019</u>	<u>E-019</u>	<u>2/5 years^[1]</u>

¹ Monitoring is contingent upon the discharge of stormwater at this discharge point. If no discharge occurs, monitoring is not required.

The samples shall be analyzed for the priority pollutants listed in Table C of the Regional Standard Provisions (Attachment G), except for those priority pollutants with effluent limitations where the MRP already requires monitoring. Compliance with this requirement shall be achieved in accordance with the specifications of Regional Standard Provisions (Attachment G) sections III.A.1 and III.A.2.

The Discharger shall evaluate on an annual basis if concentrations of any priority pollutant increase over past performance. The Discharger shall investigate the cause of any increase. The investigation may include, but need not be limited to, an increase in monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. This requirement may be satisfied through identification of the constituent as a “pollutant of concern” in the Discharger’s Pollutant Minimization Program, described in Provision VI.C.3.

b. Reporting Requirements

i. Routine Reporting

The Discharger shall, within 30 days of receipt of analytical results, report in the transmittal letter for the appropriate monthly self-monitoring report the following:

- a. Indication that a sample or samples for this characterization study was or were collected; and
- b. Identity of any and all priority pollutants detected above or within one order of magnitude of their applicable water quality criteria (see Fact Sheet [Attachment F] Table F-19 for the criteria), together with the detected concentrations of those pollutants.

ii. Annual Reporting

The Discharger shall provide a summary of the annual data evaluation and source investigation in the annual self-monitoring report.

iii. Final Report

The Discharger shall submit a final report that presents all these data to the Regional Water Board no later than 180 days prior to the Order expiration date. The final report shall be submitted with the application for permit reissuance.

~~Facility (measured at Monitoring Location EFF-001) for the constituents listed in the Regional Standard Provisions (Attachment G) according to the sampling frequency specified in the MRP (Attachment E). Compliance with this requirement shall be achieved in accordance with the Regional Standard Provisions.~~

~~The Discharger shall evaluate on an annual basis if concentrations of any constituent have a significant increase over past performance. The Discharger shall investigate the cause of any such increase. The investigation may include, but need not be limited to, an increase in the effluent monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. This requirement may be satisfied through identification of these constituents as “pollutants of concern” in the Discharger’s Pollutant Minimization Program described in Provision VI.C.3.c., below. A summary of the annual evaluation of data and source investigation activities shall be reported in the annual self-monitoring report.~~

~~A final report that presents all the data shall be submitted to the Regional Water Board no later than 180 days prior to the Order expiration date. This final report shall be submitted with the application for permit reissuance.~~

Monitoring and Reporting Program (Attachment E), Section IV.A

Because we revised the tentative order to require priority pollutant monitoring in Provision VI.C.2a, we are also revising Table E-3 to avoid duplication.

Table E-3. Effluent Monitoring at EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Remaining Priority Pollutants ⁽¹⁰⁾	µg/L	C-24/Grab	2/Year	(2)

⁽¹⁰⁾ Sampling for all priority pollutants is addressed in the Regional Standard Provisions (Attachment G).

**Monitoring and Reporting Program (Attachment E), Section VIII.B
Self Monitoring Reports (SMRs)**

1. The Discharger shall electronically submit SMRs using the State Water Board’s California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS website will provide additional directions for SMR submittal in the event of a service interruption for electronic submittal.
2. **SMR Due Dates and Contents.** The Discharger shall submit SMRs by the due dates specified below:
 - a. **Monthly SMRs** — Monthly SMRs shall be due 30 days after the end of each calendar month, covering that calendar month. The monthly SMR shall contain the applicable items described in sections V.B and V.C of both Attachments D and G of this Order. See Provision C.2 (Effluent Characterization Study and Report) of this Order for information that must also be reported with the monthly SMR.
 - b. **Annual SMR** — Annual SMRs shall be due February 1 each year, covering the previous calendar year. The annual SMR shall contain the items described in section V.C.1.f of the Regional Standard Provisions (Attachment G), and those specified in the Provisions section of this Order. See also Provision C.2c (Effluent and Receiving Water Selenium Characterization Study) of the Order for requirements to submit reports with the annual SMR.
 - c. **Additional Specifications for Submitting SMRs to CIWQS** — If the Discharger submits SMRs to CIWQS, it shall submit analytical results and other information using one of the following methods:

Table E-8. SMR Reporting for CIWQS

Parameter	Method of Reporting	
	<u>EDF/CDF data upload or manual entry</u>	<u>Attached File</u>
<u>All parameters identified in influent, effluent, and receiving water monitoring tables (except Dissolved Oxygen and Temperature)</u>	<u>Required for All Results</u>	
<u>Dissolved Oxygen</u> <u>Temperature</u>	<u>Required for Monthly Maximum and Minimum Results Only</u> ⁽¹⁾	<u>Discharger may use this method for all results or keep records</u>
<u>Cyanide</u> <u>Arsenic</u> <u>Cadmium</u> <u>Chromium</u> <u>Copper</u> <u>Lead</u>	<u>Required for All Results</u> ⁽²⁾	

<u>Mercury</u> <u>Nickel</u> <u>Selenium</u> <u>Silver</u> <u>Zinc</u> <u>Dioxins and Furans (by U.S. EPA Method 1613)</u>		
<u>Antimony</u> <u>Beryllium</u> <u>Thallium</u> <u>Pollutants by U.S. EPA Methods 601, 602, 608, 610, 614, 624, and 625</u>	<u>Not Required (unless identified in influent, effluent, or receiving water monitoring tables), But Encouraged⁽¹⁾</u>	<u>Discharger may use this method and submit results with application for permit reissuance, unless data submitted by CDF/EDF upload</u>
<u>Analytical Method</u>	<u>Not Required (Discharger may select “data unavailable”)⁽¹⁾</u>	
<u>Collection Time</u> <u>Analysis Time</u>	<u>Not Required (Discharger may select “0:00”)⁽¹⁾</u>	

Footnotes for Table E-8:

- (1) The Discharger shall continue to monitor at the minimum frequency specified in the monitoring tables, keep records of the measurements, and make the records available upon request.
- (2) These parameters require EDF/CDF data upload or manual entry regardless of whether monitoring is required by this MRP or other provisions of this Order (except for biosolids, sludge, or ash provisions).

3. Monitoring Periods. Monitoring periods ~~and reporting~~ for all required monitoring shall be completed according to the following schedule:

Table E-79. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Day after permit effective date	All
1/Hour	Day after permit effective date	Hourly
1/Day	Day after permit effective date	Midnight through 11:59 PM or any 24-hour period that reasonably represents a calendar day for purposes of sampling.
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday
1/Month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month
1/Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
2/Year	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31
1/Year	January 1 following (or on) permit effective date	January 1 through December 31

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
<u>2/5 Years or “twice per permit term”</u>	<u>Day after permit effective date</u>	<u>Once within the first 12 months, and once within 12 months prior to applying for permit reissuance.</u>
1/Discharge Event	Anytime during the discharge event or as soon as possible after aware of the event	At a time when sampling can characterize the discharge event

Description of Stormwater Outfalls, Fact Sheet Pages F-5 to F-8

Discharge Point No. 003 (North Yard Impoundment Basin). This controlled discharge from an earthen basin consists mainly of stormwater, but other potential non-stormwater sources include incidental quantities of no greater than about 5,000 gallons of steam condensate, non-contact bay water, groundwater seepage, hydrotest water, and water from fire protection systems that remains in the basin and mixes with stormwater during the controlled discharges. Hydrotest water is routed to the basin prior to being sent to the ABTU. Stormwater runoff originates from an area of approximately 407 acres from areas within the: Poleyard and Alkane Tankfields and adjacent hill sides; LPG and Ammonia Storage Facilities; Former Oxidation Ponds 2-5, Cracking and Hydroprocessing facilities and processing areas; and Hydropits Cap. The North Yard Impound Basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and this discharges stormwater from this basin by gravity to San Pablo Bay. Discharge may also include water from Discharge ~~Point~~-008.

Discharge Point No. 008 (Tank Field 100’ Channel). This controlled discharge from an earthen basin consists mainly of stormwater, but other residual sources may include steam condensate, groundwater seepage, hydrotest water, and water from the fire protection system. Hydrotest water is routed to the basin prior to being sent to the ABTU. Runoff originates from an area of approximately 496 acres in and around the Main Tankfield, Distillation and Reforming facilities, Main and South Yard areas, rail car loading areas, former Asphalt Plant area, and Cogeneration Facility. This earthen basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and discharges stormwater from this basin by gravity to~~Discharge Point No. 008 discharges into~~ San Pablo Bay. This discharge and/or may also be discharged as part of Discharge Point 003.

Discharge Point No. 009 (8-Basin). This controlled discharge from an earthen basin consists mainly of stormwater, but other residual sources may include steam condensate, groundwater seepage, hydrotest water, and water from the fire protection system. Hydrotest water is routed to the basin prior to being sent to the ABTU. Runoff originates from an area of approximately 26 acres within the Quarry Tankfield. During unusual circumstances (i.e., emergency based events,

special conditions), non-stormwater may be stored in the basin. This non-stormwater will be dealt with in a manner acceptable to the Regional Water Board. This earthen basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and discharges stormwater from this basin by gravity to Discharge Point No. 009 ~~discharges into~~ San Francisco Bay.

Discharge Point No. 017 (3-Basin). This controlled discharge (including 3A Basin discharge) from an earthen basin consists of stormwater runoff from an area of approximately 7 acres in a former tankfield area of the Office Hill Tankfield. Additional non-stormwater wastewaters include water from the fire protection system. This earthen basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and discharges stormwater from this basin by gravity to Discharge Point No. 017 ~~discharges into~~ San Francisco Bay.

Discharge Point No. 018 (9-Basin). This controlled discharge from an earthen basin consists mainly of stormwater, but other residual sources may include steam condensate, hydrotest water, and water from the fire protection system. Hydrotest water is routed to the basin prior to being sent to the ABTU. Runoff originates from an area of approximately 29 acres in the Quarry Tankfield. This earthen basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and discharges stormwater from this basin by gravity to Discharge Point No. 018 ~~discharges to~~ San Francisco Bay.

Discharge Point No. 019 (7-Basin). This controlled discharge from an earthen basin consists mainly of stormwater, but other residual sources may include steam condensate, hydrotest water, and water from the fire protection system. Hydrotest water is routed to the basin prior to being sent to the ABTU. Runoff originates from an area of approximately 20 acres in the SP Hill Tankfield. This earthen basin provides treatment of stormwater via physical settling. Before discharging, Chevron analyzes stormwater samples for compliance with its effluent limits. Once compliance is assured, Chevron opens a valve and discharges stormwater from this basin by gravity to Discharge Point No. 019 ~~discharges into~~ San Francisco Bay.