



**California Regional Water Quality
San Diego Region**

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Item No. 7
Supporting Document No. 7



Matthew Rodriguez
Secretary for
Environmental Protection

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Edmund G. Brown Jr.
Governor

August 31, 2011

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In reply refer to:
CRU:240988:Neill
WDID: 9 000000506

Dear Mr. McFadden and Ms. Steirer:

SUBJECT: RESPONSE TO COMMENTS ON TENTATIVE ORDER NO. R9-2011-0052, TIME SCHEDULE ORDER FOR KINDER MORGAN ENERGY PARTNERS

Thank-you for submitting comment letters on proposed Time Schedule Order No. R9-2011-0052 (TSO) requiring Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Discharge Project to comply with Discharge Prohibition No. IV.C of Order No. R9-2008-0002, NPDES Permit No. CAG919002 *"General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay (WDR)."*

We share your concern for water quality in the region and we appreciate and agree with your desire to expeditiously remediate the affected aquifer. Your sentiments for water quality protection are encouraging to us and a benefit to the citizens of San Diego and the state of California. We share the City's concern regarding total dissolved solids (TDS) loading into Murphy Canyon Creek which is on the Clean Water Act §303(d) list of TDS impaired water bodies. In regards to the concern of TDS within the receiving water, we look forward to the City's plan to reduce TDS concentrations in stormwater runoff and in nonstormwater discharges, particularly overirrigation discharges of imported water, to achieve surface water quality objectives. We also look forward to the

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City's development and implementation of a salinity management plan to achieve TDS objectives in the groundwater. The TSO can help the City to achieve these objectives through monitoring data, and possible mitigation plans. We look forward to the City's input and cooperation with the required monitoring and studies that are required by the TSO that will maximize the knowledge for all stakeholders within the watershed. TDS is an issue only solvable by involving many participants.

Below, we have provided responses to your written comments received on the draft TSO. We did not receive any other comment letters on the TSO. We have reviewed and carefully considered your comments in the responses. Your comments are summarized and followed by a response. If needed, we can discuss responses in person.

Response to Comments from the City of San Diego's Transportation and Stormwater Department (TSWD):

Comment: *[T]he proposed TSO expressly acknowledges that the proposed discharge to Murphy Canyon Creek "has a reasonable potential to contribute to an in-stream excursion above water quality objectives for TDS as set forth in the Basin Plan" [TSO Finding #4]. The Basin Plan limits TDS for these waters to 1,500 mg/L. But the TSO proposes to allow a significantly higher discharge of TDS levels of up to 2,400 mg/L per day.*

Response: The TSO proposes an interim effluent limit of 2,400 mg/L for TDS. As an enforcement mechanism prescribed by the California Water Code, time schedule orders are not explicitly required to contain interim effluent limits. In this case, the San Diego Water Board staff decided to require compliance with an interim effluent limit to ensure a measureable level of protection for the receiving water while monitoring and treatment systems are investigated. We did consider the City's concern when drafting the TSO and decided that the interim effluent limitation was appropriate due to the existing concentration of TDS in the receiving waters. With the limited receiving water data that is available, existing levels of TDS upstream of the discharge have exceeded 2,400 mg/L on two of the three monitoring events. In addition, the San Diego River Watershed Urban Runoff Management Program Annual Report dated January 2011 states "Elevated TDS results were recorded at nearly all monitoring stations during ambient conditions." and "During dry weather, MS4 results showed that ... TDS ... were identified as high priority constituents in all drainage areas." The interim effluent limit is not expected to alter existing conditions in the receiving waters.

Comment: *[A]lthough the proposed TSO indicates that Order No. R9-2008-0002 does not specify effluent limitations for discharge of TDS, limitations for TDS are in fact found under Section VI., Receiving Water Limitations, at the table on page 36 that breaks*

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down the hydrographic units (HU) of the basin and objective (mg/L TDS) for each HU. The TDS limit for the San Diego River is 1,500 mg/L. [§VI.A, p. 36].

Response: Section VI is titled "Receiving Water Limitations", not effluent limitations. The referenced table on page 36 for the hydrographic unit is for "Mineral Objectives for Inland Surface Waters". The table heading is titled "objective" and not effluent limitations. Therefore, the TSO is correct in saying that effluent limitations are not specified in Order No. R9-2008-0002.

Comment: *In addition, under its MS4 Permit, Order No. R9-2007-0001 ("MS4 Permit"), the City "cannot passively receive and discharge pollutants from third parties." If it does, it may be responsible for the discharge. (§D. 3.d, p.8). Under the City's MS4 Permit: "Discharges into and from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 130S0), in waters of the state are prohibited."(A1, p. 11). Under the MS4 permit, "Discharges from MS4s containing pollutants which have not been reduced to the maximum extent practicable (MEP) are prohibited. (A2, p. 11). Under the MS4 permit, "Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited. (A3, p. 12). Therefore, the proposed discharge would result in violations of the City's MS4 permit.*

Response: This discharge is regulated through a separate NPDES permit, Order No. R9-2008-0002 and is therefore not subject to the prohibition of non-storm water discharges contained in the City's MS4 permit, Order No. R9-2007-0001. Section B.1, pg. 13, of Order No. R9-2007-0001 specifically states, "Each Copermittee shall effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit; or not prohibited in accordance with sections B.2 and B.3 below." Therefore, the discharge to the creek does not violate the City's MS4 permit.

Comment: *As examples of prohibited discharges in the San Diego River watershed, the City has previously been issued Notices of Violation R9-2010-0015 (Vulcan Materials quarry incident) and R9- 2007-0110 (Mission Valley Library decorative pool incident). It is difficult to reconcile those previous NOV's with this proposed TSO action. Reducing pollutants to Maximum Extent Practical entails prevention of discharges and/or reducing pollutant loads to levels not inconsistent with the Basin Plan.*

Response: Unlike the Kinder Morgan discharge, which is regulated by a separate NPDES permit, the discharge from the Mission Valley Library was a prohibited non-stormwater discharge of decorative pond water, subject to all requirements prescribed under the City's MS4 permit. The NOV issued to the City for Vulcan Materials was for the City's failure to take enforcement action requiring Vulcan Materials to implement best management practices to reduce sediment in stormwater runoff.

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NPDES Order No. R9-2008-0002 which regulates the Kinder Morgan discharge is not subject to the MEP standard. Nevertheless, the level of treatment that this groundwater discharge receives is far greater than other sources of TDS in the City's MS4 system, for example irrigation over watering or rising groundwater. In any enforcement case, the San Diego Water Board has the discretion of choosing which enforcement mechanism is most appropriate given the circumstances surrounding the alleged violation. For the Kinder Morgan discharge, the Time Schedule Order is the appropriate mechanism to seek compliance with the Basin Plan water quality objectives.

Comment: *Additionally, the biological effects of the increased TDS loads to the ecosystem from the proposed TSO have not been identified or mitigated.*

Response: The San Diego Water Board staff shares the City's concern regarding the biological effects of increased TDS and when drafting the Time Schedule Order included biological monitoring to identify any potential impacts. In addition, the Time Schedule Order requires a mitigation plan. We encourage the City to assist and coordinate with both the monitoring and the mitigation plan.

Comment: *Further, the proposed TSO does not appear to have adequately analyzed the increased sedimentation effects of the substantially increased discharge... Thus, increasing groundwater discharges from 795,000 gpd to 1.26 mgd raises grave concerns about the increased rate of sediment load and vegetation growth in a channel and potential mitigation responsibilities that the City would have to undertake to reduce impacts to biological resources and water quality. Increasing the sediment and vegetation loads may also increase the frequency of the need for maintenance of the channel to reduce flooding risks.*

Response: Approval for the increased discharge has been removed from the TSO and will be addressed in a separate letter modifying the discharger's Notice of Enrollment. Increased sedimentation is not expected to occur. The discharge itself has Turbidity concentrations less than 1.0 NTU, Total Suspended Solids concentration less than 10 mg/L, and Settleable Solids concentrations less than 0.10 mg/L. Because Murphy Canyon Creek at the discharge point is a hardened concrete trapezoidal channel, the potential for erosion and sedimentation resulting from increased flow rates within the channel is negligible. In the threat of imminent flooding, Kinder Morgan has an interest to protect their facility and treatment process. The facility has the capability to turn off pumps to dramatically decrease the discharge flow rate.

The San Diego Water Board shares the City's concern about the potential environmental impacts, including enhanced opportunities for growth of vegetation caused by non-storm water discharges to inland surface waters from anthropogenic sources. The potential increased rate of vegetation growth due to the increased discharge flow is unknown and other factors are also necessary for vegetation growth;

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e.g. adequate nutrients, sunlight, substrate. The downstream channel is already heavily vegetated and unmaintained.

In the case of the discharge from Mission Valley Terminals, the source of the discharge is shallow groundwater in close vicinity of the San Diego River that would otherwise contribute to the base flow of the River. As part of the base flow, the ground water would be available for uptake by vegetation along the River. Consequently and based upon available information, significant increased vegetation resulting from the higher flow is not likely.

As noted above, the requirement for the higher flow limit will be prescribed in a letter issued by the Executive Officer modifying the Notice of Enrollment. In this manner, authorization for the higher limit can be revisited by the Executive Officer upon receipt of documentation that the higher discharge rate will, in fact, contribute to environmental problems.

Response to Comments from the City of San Diego's Public Utilities Department (PUD):

Comment: *The City still believes that the RWQCB could condition the approval of KMEP's [Kinder Morgan Energy Partners] discharge by allowing the "live stream discharge" of only that water which cannot be re-injected. This would effectively alleviate the TDS load on the local water body, and reduce the waste of this resource, as now allowed.*

Response: The TDS water quality objective for groundwater are identical to the surface water quality TDS objective. As a result, Kinder Morgan would be subject to a similar time schedule order or other enforcement order for such a discharge. As cited in the San Diego Water Board's July 16, 2009 letter and as discussed at the August 12, 2009 San Diego Water Board hearing on this matter, there are several reasons why re-injection of extracted groundwater into the aquifer is not feasible during active remediation of the site.

Comment: *Although SFPP and, subsequently, KMEP has been monitoring its effluent for years while operating its remedial system, it has apparently made no note of any impacts related to the high TDS to date, and now the RWQCB proposes to give KMEP an additional two years to "evaluate the potential" that its discharge, admittedly high in TDS, is causing a water body already overloaded with TDS to have an "excursion". We have the following questions: (1) Why is this necessary? (2) Why can't the discharger immediately prepare and submit an action plan?*

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Response: The additional time is necessary to develop sufficient data on total dissolved solids concentrations in the receiving water under various seasonal flow conditions. In accordance with the requirements prescribed in Order No. R9-2008-0002, Kinder Morgan has neither conducted bioassessment monitoring nor monitored the receiving water for total dissolved solids. This information will not only be valuable in determining appropriate measures to address elevated concentrations in the groundwater discharge, but also the extent and options for mitigation. The information will also be valuable for prioritizing efforts for addressing the overall water quality problem, which resulted in the 303(d) listing of the River as being impaired for total dissolved solids in 2002.

Comment: *[A] mitigation plan must be submitted by June 30, 2014. This is over six months after KMEP is supposed to have completed remediation, according to the RWQCB's Order. Moreover, installation of any construction for a "treatment system" is not required for another six months (January 30, 2015) which would make it a system for treatment of an effluent that is supposed to have ceased over 12 months previously, i.e., by the final cleanup deadline of December 31, 2013!*

Response: The time schedule is reasonable and appropriate in light of all the factors related to this specific case. These factors include, but are not limited to, the need to expeditiously remediate the groundwater contamination plume, the ambient TDS concentrations in ground and surface water, the current beneficial uses of the lower San Diego River, the need to conduct further salinity studies in the watershed as the water quality data is limited. Therefore, immediate treatment for TDS is outweighed by the need for sufficient monitoring data collected over a sufficient time period to develop and implement a meaningful action and mitigation plan. As stated the action plans and mitigation plans are required following the final cleanup deadline. The discharge, however, may not cease following that deadline and mitigation measures could be extended beyond termination of the discharge.

Comment: *There is no explicit discussion in the TSO about whether the proposed increased production of groundwater, which is to be treated and discharged to waste, will in fact result in reaching the final cleanup deadline of December 31, 2013.*

Response: The TSO does not address nor amend the groundwater Cleanup and Abatement Order (CAO) No. 92-01. If the discharger is unable to meet the cleanup deadlines prescribed in the CAO, then the San Diego Water Board will consider appropriate actions at that time. The TSO requires a schedule for the discharge of the treated groundwater to be in compliance with the surface water quality objectives.

Comment: *There is absolutely no data provided to justify Finding No. 4d, i.e., "the various treatment processes do not result in significant changes in the overall TDS of the treated groundwater." Such a finding requires chemical analyses of flow rates*

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and chemical concentrations of both influent and effluent waste streams to the Groundwater Extraction Treatment System.

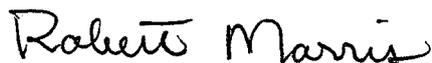
Response: As stated in the finding, "*Kinder Morgan further reported that the various treatment processes do not result in significant changes in the overall TDS of the treated groundwater.*" Based on our professional knowledge, experience and judgment of the treatment processes, we agree with Kinder Morgan's assessment that the effluent TDS concentration will not appreciably change from the concentration found in the groundwater. We welcome any information that the commenter can share with us regarding their knowledge of the treatment system that would result in a significantly different TDS concentration in the effluent from the groundwater.

In conclusion, the San Diego Water Board appreciates your comments and your concern for water quality in the region. We look forward to partnering with you in addressing TDS throughout the watershed. We also encourage you to work with Kinder Morgan by sharing your knowledge, data and expertise of water quality in the watershed as they develop their action plan and mitigation plans.

The heading portion of this letter includes a San Diego Water Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject portion of all correspondence and reports to the San Diego Water Board pertaining to this matter.

If you have any questions or require further information, please contact Mr. Ben Neill of my staff at (858) 467-2983 or via email at bneill@waterboards.ca.gov.

Sincerely,



Robert Morris
Senior Water Resource Control Engineer
Core Regulatory Unit
San Diego Regional Water Quality Control Board

Cc via email:
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