California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer

Executive Officer's Report

February 8, 2012

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Part A – San Diego Region Staff Activities

1. Personnel Report

Staff Contact: Lori Costa

The Organizational Chart of the San Diego Water Board can be viewed at http://www.waterboards.ca.gov/sandiego/about_us/org_charts/orgchart.pdf

Recent Hires

Darren Bradford, an Environmental Scientist, began working on January 3, 2012, in the Compliance Assurance Unit. He has a Bachelor's Degree from Sonoma State University in Environmental Studies and Planning. Darren previously worked as an Environmental Scientist with the Dept. of Fish and Game and the State Water Board.

Christina Witte began working as the Executive Assistant on January 9, 2012. She comes to the San Diego Water Board with over 20 years of experience in administrative support. For more than five years she was an Executive Secretary with the Occupational Safety and Health Standards Board in Sacramento.

Vinty Siev, a Staff Information Systems Analyst, began working on January 30, 2012, in the Information Systems Management Unit. He has a Bachelor's Degree from San Diego State University in Computer Engineering. Vinty previously worked as an Associate Information Systems Analyst with the Dept. of Corrections and as a student intern for the San Diego Water Board from March 2006 to December 2008. Vinty serves as our LAN Administrator.

Promotions

Lori Costa was promoted to Associate Governmental Program Analyst in December 2011. Lori began her State career with the State Water Board in November 1984. In 1996 she left her position as Associate Personnel Analyst to move to San Diego. She was the San Diego Water Board's Executive Assistant for 14 years before promotion to Staff Services Analyst in the Business Services Unit in February 2011.

Departures

Staff Services Manager DiAnne Broussard retired from State Service on December 20, 2011 after 10 ½ years with the San Diego Water Board. In May 2001DiAnne was hired as and Administrative Officer and promoted to Staff Services Manager in May of 2009. She was a wealth of knowledge in the Business Services Unit and will surely be missed. DiAnne will remain in San Diego but plans to do some traveling. We thank her for her dedicated service and wish her the best in her future endeavors.

Recruitment
Recruitment is ongoing for a Water Resource Control Engineer and a Staff Services Analyst. We hope to announce appointments for those positions in February or early March.

Follow this link to see the announcements:
http://www.spb.ca.gov/employment/wvpos_index.htm.

Vacant positions for the State and Regional Boards are also posted on the State Board web page at http://www.waterboards.ca.gov/about_us/employment/

Part B – Significant Regional Water Quality Issues

1. Status Report: Kinder Morgan Energy Partners – Mission Valley Terminal Cleanup Project and Associated Dewatering Discharge (*Attachment B1a-d*)

Staff Contacts: Robert Morris, Sean McClain, Ben Neill

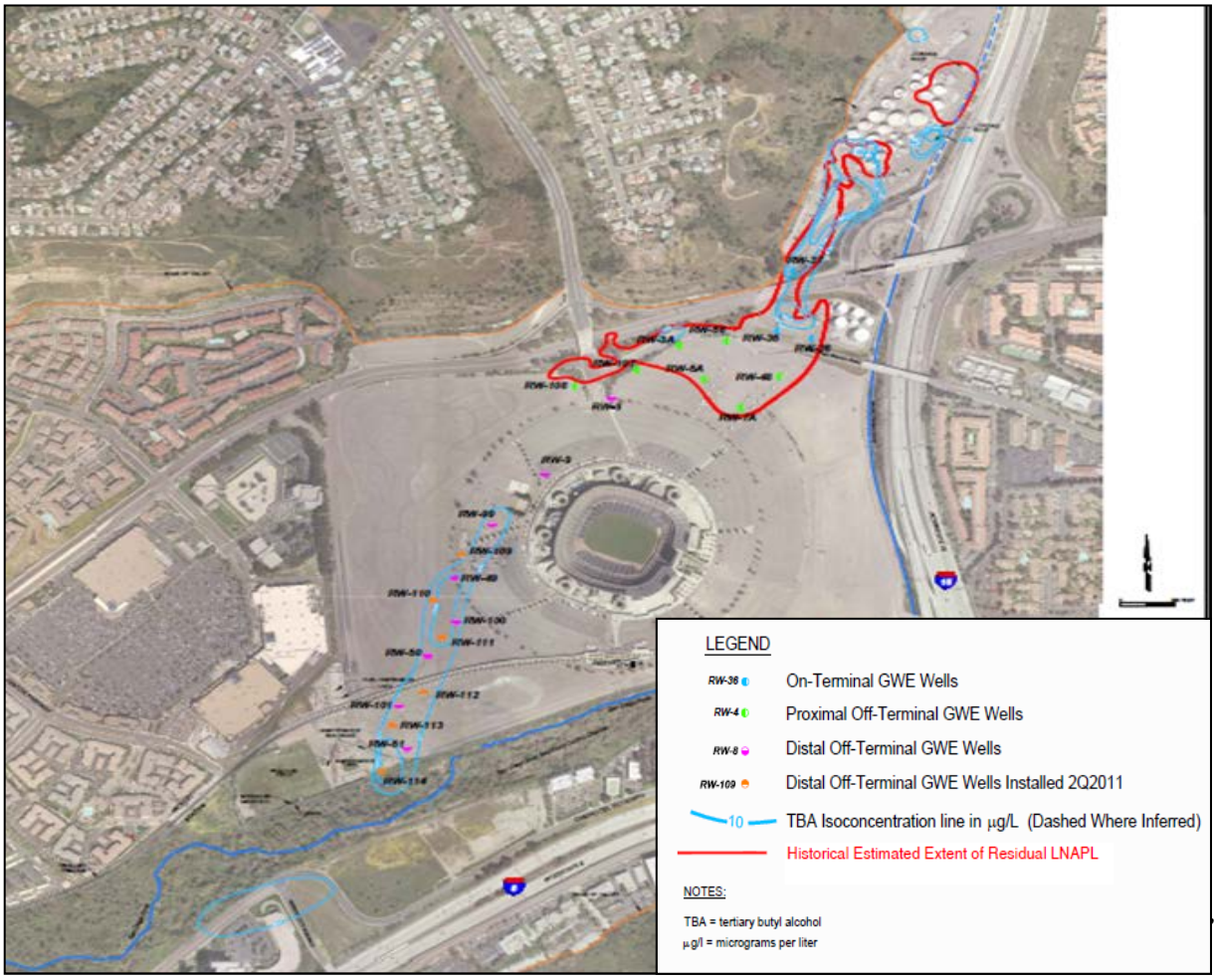
The San Diego Water Board has been evaluating its regulatory options to restore, preserve, and maintain groundwater and surface water quality in the vicinity of Qualcomm Stadium in light of continuous objections from the City of San Diego about the Kinder Morgan Energy Partners' (Kinder-Morgan) cleanup and its associated discharge of treated groundwater. As a result of the City's objections, the San Diego Water Board is precluded from authorizing Kinder-Morgan's requested increase in the discharge flow rate of treated groundwater from the cleanup project to the adjacent Murphy Canyon Creek under Order No. 2008-002, NPDES Permit No. CAG919003, the *General Waste Discharge Requirements for Groundwater Extraction to Surface Waters within the San Diego Region* (the NPDES Permit). Kinder-Morgan is unable to provide proof, required by the NPDES Permit, of the City's authorization to accept increased discharges. Kinder-Morgan requested the flow rate increase to expedite the cleanup operation. For the reasons contained in the Administrative Record for this matter, as more fully set forth below, the San Diego Water Board Executive Officer should deny Kinder-Morgan's request for an increase in the permitted discharge flow rate.

CLEANUP BACKGROUND
The Mission Valley Terminal (MVT) is a 10.5 acre aboveground storage tank (AST) facility located in Murphy Canyon in an area bounded by Interstate 15 and San Diego Mission Road in the City of San Diego (Figure 1). The MVT has been in operation since 1962. Gasoline releases from the terminal resulted in a groundwater contamination plume extending off-Terminal

approximately 2,000 feet to the south and southwest beneath Friars Road and the Qualcomm Stadium parking lot.

The San Diego Water Board issued an amended Cleanup and Abatement Order (CAO)[1] in 2005 requiring Kinder-Morgan to clean up the soil and to meet the following directives by the deadline dates:

- December 31, 2010: "…to the extent technically practicable remove residual light non-aqueous phase petroleum liquid (liquid gasoline referred to as LNAPL) from subsurface soil and groundwater beyond the MVT property."
- December 31, 2013: "…shall reduce concentrations of dissolved phase petroleum hydrocarbon waste constituents in groundwater to attain background water quality conditions beyond the MVT property."



Kinder-Morgan implemented a Corrective Action Plan to satisfy the CAO directives and meet the cleanup deadlines. The remedial strategy selected to clean up the soil and groundwater in the off-terminal area includes:

1. Soil vapor extraction (SVE) coupled with localized lowering of the groundwater table (dewatering) to effectively expose the entire LNAPL zone to the influence of SVE. There are approximately 192 SVE wells and 19 groundwater extraction wells operating in the primary off-terminal LNAPL zone to remove gasoline constituents from the soil and groundwater.

2. Placement of a hydraulic containment barrier at the property boundary to prevent petroleum hydrocarbons in groundwater from migrating of beyond the terminal property (Figure 1).

3. Implementation of a monitoring and reporting program to optimize LNAPL removal and evaluate whether the remediation system is capable of meeting the remedial goals within the required time frame.

The City of San Diego is a key stakeholder in this cleanup because it owns property at Qualcomm Stadium overlying the contaminated soil and groundwater, and because it plans to develop a water supply project in the area impacted by the gasoline spill. Should the City install a drinking water production well in the area of the MVT groundwater pollution, Addendum No. 5 to the CAO requires Kinder-Morgan to submit a Drinking Water Replacement Contingency Plan that includes a provision to provide uninterrupted replacement water service, which may include wellhead treatment, for the public water purveyor or private well owner. Kinder-Morgan reported that it has offered to provide the treated groundwater, which is currently being discharged to the creek, to the City for beneficial re-use, but reports that the City has never responded to its offers.[2] Kinder-Morgan further reports that a water supply well does not exist and that to their knowledge, the City has not provided a plan to develop the aquifer with water supply wells or sought a permit from the California Department of Health Services for such water supply wells.[3]

All San Diego Water Board documents and reports prepared by Kinder-Morgan on this matter have been provided to the City for review and comment. The San Diego Water Board staff meets with the City's representatives periodically to obtain their input and discuss their comments.

[2] Letter dated November 16, 2011 from Kinder-Morgan to the San Diego Water Board.

[3] Ibid.

STATUS OF OFF-TERMINAL CLEANUP

Rebound Study June 2010. Kinder-Morgan performed confirmatory soil sampling and a soil vapor rebound study during April through June 2010. The goal of the evaluation was to provide confirmation of where LNAPL has been removed from the primary off-Terminal LNAPL Zone to the extent technically practicable. Based on this evaluation, Kinder-Morgan determined that large portions of the primary off-terminal LNAPL Zone had been remediated to the extent technically practicable. There are four areas, however, that the San Diego Water Board likely may find did not comply with the December 31, 2010 cleanup deadline. In addition, a new area of LNAPL-affected soil, which was discovered in July 2009 in the northwestern off-terminal LNAPL area, adjacent to the western limits of the previously known extent of the primary LNAPL zone, will not comply with the December 31, 2010 cleanup deadline.

Soil Excavation August through October 2010. Kinder-Morgan excavated four areas within the primary off-Terminal LNAPL zone to achieve further assurance of compliance with the December 31, 2010 deadline. Excavation was performed by large diameter auger pattern drilling. Six- and four-foot diameter augers were advanced to depths below the bottom of LNAPL-affected soil in an overlapping grid pattern. Each borehole was backfilled with Portland cement slurry immediately following excavation. A total of approximately 6,000 cubic yards (10,671 tons) of soil was excavated from the selected areas and transported off-site for treatment and recycling.

Northwestern off-terminal LNAPL Area, August through December 2010. Kinder-Morgan expanded the SVE system into the northwestern off-terminal LNAPL zone to include a network of 51 additional SVE wells and a second SVE system to remediate the LNAPL-affected soil. The new system started in December 2010 and Kinder-Morgan expects cleanup of soil in the northwestern off-terminal area will be complete by December 31, 2013.

Second Rebound Study February through April 2011. Kinder-Morgan performed a 61-day soil vapor rebound test by shutting down all SVE systems from February 23, 2011 through April 24, 2011. Soil vapor monitoring during rebound and subsequent restart was used to evaluate whether significant petroleum hydrocarbons remain in the soil. The results indicated that that by December 31, 2010, the LNAPL-affected soil in the primary off-Terminal zone had reached a condition where continued remedial efforts were providing small incremental benefit (i.e. LNAPL had been removed to the extent technically practicable).

Compliance with December 31, 2010 CAO cleanup deadline. Kinder-Morgan reported that the remediation had met the December 31, 2010 cleanup criteria for the primary off-terminal LNAPL zone. However, the northwestern off-terminal LNAPL area did not meet the 2010 cleanup deadline. Active remediation of the northwestern off-Terminal LNAPL zone commenced in late 2010, and LNAPL removal in this area remains ongoing. Kinder-Morgan expects the northwestern off-Terminal LNAPL zone to be complete prior to December 31, 2013.

Compliance with December 31, 2013 CAO cleanup deadline. Kinder-Morgan plans to continue operating the primary SVE system in a bioventing mode until the December 31, 2013

groundwater cleanup directive is met. The groundwater extraction system continues to operate to maintain the hydraulic barrier at the MVT property boundary and to remove concentrations of dissolved-phase petroleum hydrocarbons in off-Terminal groundwater to comply with the December 31, 2013 cleanup deadline.

CURRENT AND FUTURE ISSUES WITH CLEANUP

Gasoline Constituents in Groundwater. The cleanup currently is focusing on two gasoline constituents in groundwater, methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA). During the fourth quarter 2011 monitoring event, Kinder-Morgan reported that no total petroleum hydrocarbons, benzene, toluene, ethylbenzene, or xylenes were detected in the off-Terminal groundwater monitoring wells, except at two locations. The fuel additive MTBE detected in groundwater remained at relatively low concentrations, below 5 micrograms per liter (ug/L), in portions of the off-terminal area, except for two monitoring wells that detected MTBE at 6.8 and 8.4 ug/L. Concentrations of TBA ranging from non-detect to 250 ug/L were reported (Figure 1). The frequency and magnitude of TBA detections in the off-terminal area have generally decreased over time.

Increase Groundwater Discharge Request. Kinder-Morgan used new data collected in the off-terminal area to update a groundwater flow and contaminant transport model. The groundwater model was used to evaluate well locations, proposed pumping rates, and to simulate future dissolved-phase MTBE and TBA concentration reductions over time in the downgradient off-Terminal area. Based on the modeling, Kinder-Morgan determined that a flow increase to 1.26 MGD is needed to achieve the cleanup goals established by the December 31, 2013 CAO cleanup deadline. Kinder-Morgan has constructed a second groundwater treatment plant and installed six additional groundwater extraction wells southwest of Qualcomm Stadium in anticipation that the San Diego Water Board would approve the groundwater discharge flow rate increase.

REGULATION OF THE DISCHARGE TO MURPHY CANYON CREEK - BACKGROUND

Discharges from groundwater extraction projects to surface waters within the San Diego Region except for San Diego Bay have been regulated by the San Diego Water Board since 1991 pursuant to general waste discharge requirements prescribed in the NPDES Permit. To obtain coverage under the NPDES Permit, a discharger must submit a complete Notice of Intent (NOI), including proof of authorization from the local agency with jurisdiction over the affected MS4 that demonstrates pollutant concentrations in the discharge comply with the applicable discharge specifications contained in the NPDES Permit. Upon receipt of a complete NOI, a Notice of Enrollment (NOE) is provided to the discharger by the San Diego Water Board which prescribes the allowable discharge flow limit and any additional or increased monitoring or other requirements.

In March 1994, the San Diego Water Board issued a NOE for a discharge of up to 220,000 gallons per day (gpd) from the Mission Valley Terminal remediation site to Murphy Canyon Creek. The treatment system for the discharge consisted of an oil/water separator and carbon adsorption unit. The treatment system was subsequently upgraded to address elevated levels of

manganese, and total nitrogen, which violated the NPDES Permit's Discharge Specifications. The treatment system upgrades included a manganese oxidation/filtration removal system, a biological denitrification system, an oxygen generator, a residual sulfite monitor and an auto chlorine titrator.

As required by the NPDES Permit, Kinder-Morgan submitted NOIs in 1996, 2005, 2009, and 2010 for modification of the discharge flow limit prescribed in the NOE and subsequent addenda to the NOE. The San Diego Water Board issued NOEs increasing the allowable discharge flow limit to 300,000 gpd in September 1996, to 505,000 gpd in March 2005, and to 795,000 gpd in December 2009.

The discharge is likely to continue well beyond the December 31, 2013 cleanup deadline as the operation of the groundwater extraction system will be necessary to maintain the hydraulic barrier at the MVT property boundary and to remove concentrations of dissolved-phase petroleum hydrocarbons in on-site Terminal groundwater.

TIME SCHEDULE ORDER NO. R9-2011-0052

In September 2011, the San Diego Water Board issued an enforcement time schedule order to Kinder-Morgan to ensure that the discharge from the dewatering project does not cause, have a reasonable potential to cause, or contribute to an in-stream excursion above the water quality objective for Total Dissolved Solids (TDS). This action was taken in response to a statement in a report[4] that the treated water in the discharge to Murphy Canyon Creek is typically over 2000 milligrams per liter (mg/L). The enforcement order establishes a compliance schedule for Kinder-Morgan to assess the potential for the discharge to cause, or contribute to, an in-stream excursion above the Basin Plan water quality objective of 1500 mg/L and to assess any impact of the discharge on the downstream beneficial uses. The enforcement order further requires the development and implementation of a plan to address compliance with the Basin Plan standards and mitigation to compensate for TDS loading by the effluent discharge in excess of the Basin Plan water quality objective. Kinder-Morgan must document that the discharge does not cause, or contribute to, an in-stream excursion above the water quality objective for TDS by November 30, 2015.

CURRENT REQUEST FOR MODIFICATION TO NOE

[4] Document in Support of August 12, 2009 RWQCB Meeting Agenda Item 11:

Information Item: Mission Valley Terminal Cleanup Status Report, submitted by LFR, Inc. on behalf of Kinder-Morgan, dated August 5, 2009.

On August 24, 2010, Kinder-Morgan requested an increase in the allowable discharge flow limit to 1.26 MGD. Kinder-Morgan reports that the proposed flow limit increase will expedite the removal of contaminated groundwater in the Qualcomm Stadium area and will ensure compliance with the groundwater cleanup deadline of December 31, 2013. The San Diego Water Board delayed taking action on the request until the enforcement time schedule order discussed above was issued. In written comments and at the hearing on the enforcement time schedule order in September 2011, the City raised several objections to not only the time schedule, but also to the proposal for increasing the discharge flow rate limit.

In an effort to address the City's concerns, the San Diego Water Board Executive Officer met with the City and unsuccessfully attempted to schedule a subsequent meeting with all parties. As a result, the Executive Officer requested and received letters outlining the respective positions of the City and Kinder-Morgan. The City and Kinder-Morgan also provided extensive legal analyses supporting their respective positions. (See Attachments 1, 2, 3 and 4).

ISSUES

Murphy Canyon Creek and the lower San Diego River, to which Murphy Canyon Creek flows, are defined as both receiving waters and a municipal separate storm sewer (MS4).[5] The NPDES Permit makes prior approval from the appropriate local agency with jurisdiction over the MS4 (the City of San Diego in this case) a condition of eligibility for a NOE under the NPDES Permit. The NPDES Permit further requires an applicant to include documentation that the local agency has authorized the proposed discharge to its MS4 as part of the NOI.[6] This requirement is based upon provisions contained in San Diego County's MS4 NPDES Storm Water Permit that inform the City (and other copermitees) that they accept responsibility for discharges into an MS4 that the City does not prohibit or control. Previously in March 2009, when Kinder-Morgan submitted an application and obtained a modification of the NOE to increase the flow limit to 505,000 gpd, the City did not object to the discharge, but requested that the discharge be limited to "……only that water which cannot be re-injected into the aquifer." With respect to the issue of re-injection of treated groundwater, Kinder-Morgan contends that the risks posed by such a strategy at the site far outweigh the potential benefits that may be realized.

In light of the disclosure that the discharge contains elevated concentrations of TDS, the City contends that the San Diego Water Board's enforcement time schedule order improperly allows

[5] Order No.2007-0001, NPDES No. CAS0108758, the San Diego County MS4 NPDES Storm Water Permit. Finding D.3.c. provides that urban streams used as conveyances for urban runoff are both an MS4 and receiving water.

[6] Notice of Intent Form, Attachment B1 to Order No. R9-2008-002, NPDES Permit No. CAG91002

Kinder-Morgan to pollute Murphy Canyon Creek and that the TDS concentrations in the discharge must be reduced to a level not exceeding 1500 mg/L. Elevated concentrations of TDS are a widespread problem throughout the lower San Diego River watershed[7] and the City and the other MS4 copermitees have identified TDS as a priority pollutant. No best management practices have been identified to date to specifically address TDS and best management practices designed to address a broad spectrum of pollutants have not been implemented long enough to determine their effectiveness. The studies being conducted by Kinder-Morgan under the enforcement time schedule order would provide an opportunity for the City to assess the TDS issue more fully if the City were able to resolve its differences with Kinder-Morgan.

The City has identified the following terms as prerequisites for Kinder-Morgan to obtain and maintain the City's approval to discharge at an increased flow of 1.26 MGD:

1. Kinder-Morgan must pay the City for replacement cost of extracted groundwater.
2. Kinder-Morgan must provide to the City and the San Diego Water Board a comprehensive analysis demonstrating infeasibility of alternatives to discharging extracted groundwater to surface waters.
3. Kinder-Morgan must change the discharge location to a location other than Murphy Canyon Creek, such as the San Diego River.
4. Kinder-Morgan must promptly comply with the Basin Plan Water Quality Objective for TDS. (As noted above, the San Diego Water Board's enforcement order allows Kinder-Morgan until November 30, 2015 to fully assess the issue and to implement appropriate measures to achieve compliance. The City has filed a petition for review of the time schedule order with the State Water Resources Control Board).
5. Kinder-Morgan must monitor and report to the City on the extracted groundwater.
6. Kinder-Morgan must provide the City all data related to wells, pumping test, and water quality for all work conducted on City property.
7. Kinder-Morgan must obtain annual approval from the City for continued discharges to its MS4 system.

CONCLUSION

Kinder-Morgan's projected completion of the dissolved-phase MTBE and TBA cleanup in the downgradient off-Terminal area by the December 31, 2013 CAO compliance date is finally in sight after almost two decades of effort. Kinder-Morgan reports, however, that an increase in the discharge flow rate is necessary to accommodate higher groundwater extraction rates to achieve compliance with the CAO compliance deadline. Kinder-Morgan's proposal to increase the extraction of contaminated groundwater may facilitate and expedite the cleanup. Unfortunately

[7] Final Clean Water Act sections 303(b) and 303(d) 2008 Integrated Report for the San Diego Region, dated Feb. 9, 2010.

the City and Kinder-Morgan have been unable to agree on the conditions that must be satisfied to secure the City's approval under the existing NPDES permit. Until this apparent impasse is resolved and Kinder-Morgan is able to provide the required proof of the City's authorization to increase its discharge flow rate to Murphy Canyon Creek, the San Diego Water Board has determined that it is unable to approve Kinder-Morgan's request to increase its discharge flow rate. For all of these reasons, following the February 8, 2012 Board meeting, the San Diego Water Board Executive Officer plans to issue a letter to Kinder-Morgan denying their request to modify the NOE for an increase in the groundwater discharge flow rate.

Attachments

B1a. City of San Diego Letter dated November 3, 2011, City of San Diego's Comments on Kinder-Morgan Energy Partners Proposed Flow Increase for its Mission Valley Terminal Remediation-Dewatering Discharge to Murphy Canyon Creek.

B1b. Kinder-Morgan Letter dated November 16, 2011, Kinder-Morgan's Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder-Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, Mission Valley Terminal, San Diego, California

B1c. City of San Diego Letter dated November 30. 2011, City of San Diego's Request for Hearing on Matters Subject to Regulatory Oversight, Kinder Morgan Energy Partners, Mission Valley Terminal

B1d. Kinder-Morgan Letter dated December 7, 2011, Kinder-Morgan's Response to City of San Diego Request for Hearing on Matters Subject to Regulatory Oversight, SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, San Diego, California.

2. Post-Fire Study

Staff Contact: Lillian Busse

Severe wildfires burned large portions of San Diego County and San Bernardino County in October 2003 and October 2007. After the 2003 wildfires, the San Diego Water Board funded a project to study the impacts of the wildfires on biological conditions in southern California streams. The study was conducted by the Department of Fish and Game Aquatic Bioassessment Laboratory. The study was designed to answer the following questions: (1) To what extent do wildfires affect biological conditions? (2) How long does it take for biological conditions to recover after a wildfire? (3) Does recovery in developed and undeveloped watersheds differ? and (4) What are the primary mechanisms by which wildfires affect biological conditions?

Between 2004 and 2009, fifty sites in developed and undeveloped watersheds in San Diego and San Bernardino Counties were sampled once per year for benthic macroinvertebrates. Since the San Diego Water Board had already established a biological condition monitoring program before the 2003 wildfires, pre-wildfire data were available. The biological data were supplemented with a suite of physical habitat data. Biological data were analyzed using two

bioassessment scoring tools, the Observed/Expected Index of taxonomic completeness (O/E) and the Southern California Index of Biological Integrity (SoCal IBI).

The results show that the biological condition scores decreased between thirty and fifty percent (i.e., biological conditions deteriorated substantially) for up to two years following the wildfires. In most cases, the biological conditions recovered by the third year. The same three year recovery time frame was found in developed and undeveloped watersheds. Based on the results, it appears that streambed alteration caused by catastrophic erosion was the primary mechanism leading to degraded biological conditions in the year after the fire. In addition, biological conditions were positively correlated with riparian canopy cover. Conclusions of this study are complicated by the fact that several sites were in non-perennial streams (i.e., where there was not year-round stream flow), so biological conditions at those sites may have been influenced by the flow regime as well as wildfire effects.

The study authors offer several management recommendations: (1) Allow three years of recovery time in cases where reference sites are sampled in order to set biological expectations; (2) Protect the riparian canopy cover because it has a positive influence on the recovery of biological conditions after wildfires;(3) Conduct more research on non-perennial streams and their biological conditions; and (4) Develop strong partnerships with other monitoring groups in order to build coordinated and effective monitoring programs for wildfire effects and non-perennial streams.

The results of this study support the preliminary findings from the regional bioassessment monitoring program of the Stormwater Monitoring Coalition ("SMC study") that the alteration of physical habitat is one of the major causes of poor biological conditions. Relative risk analysis of the SMC study data showed that three of the four highest risk stressors for poor biological conditions were related to physical habitat (percent sand and fines, channel alteration, and riparian disturbance). This post-wildfire study demonstrated that channel alteration and the disturbance of the riparian canopy cover have a significant influence on biological conditions.

Together, the two studies support San Diego Water Board efforts to prevent further degradation of physical habitat (e.g. sediment discharge and/or riparian disturbance) and restore streams with disturbed physical habitat.

The results of this study are presented in a technical report and a 6-page management summary, both of which can be found at the San Diego Water Board Surface Water Ambient Monitoring Program (SWAMP) website:
http://www.waterboards.ca.gov/sandiego/water_issues/programs/swamp/.

3. Electronic Content Management (ECM) Post-Implementation Status

Staff Contact: Amy Cooper

Introduction: In May 2007, the San Diego Water Board was one of three Pilot Regions that implemented an enterprise content and records management system (or ECM - Electronic Content Management system) to be the central records management repository for the purpose of

storing and recording permanent and nonpermanent documents in electronic media. The intent was to employ a system universal enough to meet the legal, business, and functional requirements of all State and Regional Water Board organizations (Water Boards) while serving the individual needs of the public, regional offices and headquarters divisions. We now have the ability to rapidly capture, store, retrieve, and synthesize a broad array of information and records in a single records management system. Following the success of the three Pilot Regions, the system is now being deployed in several other offices, including the Los Angeles Water Board and State Water Board Executive Office and Office of Chief Counsel (OCC). Current plans foresee the entire State Board structure including Regional offices implementing the ECM system of records and workflow management within the next 18 months.

Background: Records management is a primary legal obligation of the Water Boards, and it is the Water Boards' policy to provide all members of the public broad and convenient access to records and to promptly make the fullest possible disclosure of its records. The Water Boards also rely on information to meet their statutory responsibilities and have committed to improving transparency. Traditional records management threatened these objectives. With technology-driven increases in paper flow within and through the offices, the processing of paper documents increasingly required significant manual handling, routing, and tracking and demanded exponentially greater amounts of valuable commercial real estate for records storage. In 2005, after a series of failed attempts to integrate a satisfactory solution, the State Water Board's Management Coordinating Committee approved recommendations that the Water Boards develop an enterprise document management and indexing classification structure. The San Diego Water Board welcomed the opportunity to be a pilot region.

The ECM System: The San Diego Water Board's ECM system has several core components and functions including imaging and capture of documents (converting documents into digital form), applying data to digital records (metadata or indexing fields), storing records in a database (library), retrieving content and documents (full text or index searches), securing records (backup and fully system redundancy), and output (view, email, fax, print, form creation, workflow, etc.). The ECM system's flexibility allows for continuous improvement as we encounter unforeseen issues and obstacles and identify new business process opportunities. For instance, staff will soon be able to use the system to create, escalate, and manage electronic work "folders" in conjunction with electronic/digital signatures for the purpose of drafting, reviewing, and finalizing documents.

The current volume of San Diego Water Board ECM records:

- 375 gigabyte of memory
- 7.5 million pages
- 180,000 documents!

Operational and Business Benefits: The primary benefits of the ECM system over paper or conventional file storage are the ability to efficiently and effectively manage millions of documents and to retrieve a specific document in just seconds. Further, the enhanced search capabilities, such as Optical Character Recognition technology that facilitates text-only searches, can save staff extraordinary amounts of time because it provides a method to identify relevant documents across Program areas and Regional boundaries. The cost savings are substantial. Document routing, retrieval, distribution, re-filing, and storage costs have dropped significantly. Storage savings alone are estimated at $75,000 since implementation of the ECM system. Paper

consumption has also been reduced dramatically as electronic copies are replacing paper ones. Several conventional problems and the solutions provided by the ECM system include:

- Slow Response to Public Information Requests: ECM creates streamlined records identification by staff and simplified review by the public with improved ability to protect confidential documents.
- Increasing Document Redundancy: ECM ensures that originals are properly stored and maintained and reduces operational need to make copies of single documents for multiple files. ECM also reduces hard-copy printing for manual work routing and tracking.
- Adhering to Document Retention Policy: ECM provides tracking and accountability for all documents received. ECM eliminates the risk of losing documents during routing, filing, and storage. ECM ensures that information can be recovered after a disaster.
- Document Handling: ECM ensures that records are complete and readily accessible. Automated document routing streamlines processing. ECM allows multi-user and simultaneous access. ECM reduces staff time to find and make copies.

Obstacles: The primary obstacles to recognizing the full benefits of the ECM include the requirement to retain the paper originals and the current lack of adequate resources to maintain the system. Business Services Unit resources have been greatly stressed over the last three years. Filling ECM-related staffing vacancies is a top priority. Continual improvements and overcoming obstacles require staffing the ECM system with skilled and permanent employees.

While the State Water Board finalizes guidance for the destruction/recycling of paper originals, we continue to store documents in analog form after conversion into the electronic format. According to Government Code §14756, when electronically converted documents meet statutory requirements the analog documents may be destroyed and/or recycled. We have met the legal requirements. However, State Water Board guidance is required on how to "certify" that the electronic reproductions are the original public records for all intents and purposes. Further, the Office of the Secretary of State, in consultation with the Department of General Services, has proposed regulations for electronic storage and recording of documents pursuant to California Government Code §12168.7. The regulations are recommendations and best practice guidelines, which state and local agencies would be strongly encouraged to follow.

Information about the proposed rulemaking is on-line at:
http://www.sos.ca.gov/admin/regulations/proposed/tech/electronic-docs/.

Information on how the Water Boards implement the California Public Records Act guidelines is available at:
http://www.waterboards.ca.gov/resources/public_records/public_recordsact_guidelines.pdf.

4. City of Encinitas Sanitary Sewer Overflow (SSO) Success Story

Staff Contact: Chris Means

On December 28, 2011 the City of Encinitas experienced a failure in a 10-inch sewer force main, but avoided a potentially environmentally damaging spill event through early detection of the failure, rapid response and, cooperation from neighboring agencies. The 38-year old sewer main is located near the intersection of Manchester Avenue and Via Pico Road in the City of Encinitas, directly adjacent to San Elijo Lagoon. At 9:30 a.m. City maintenance staff performing daily pump station inspections observed water coming out of an electrical conduit in the station. As the crew searched for the source of the water, a pump station transformer failed and the station lost power. City Wastewater staff responded immediately to the failure, quickly developed a bypass plan, and blocked the storm drain outlets to the lagoon.

The City enlisted the aid of neighboring agencies for help with the spill and began pumping the pooled sewage back into the sanitary sewer system. The volume of the spill was originally reported to be 677,600 gallons, but was later revised to 183,600 gallons due to the fact that the other 484,000 gallons were pumped from the surcharged manhole to prevent further discharge to the environment. Water samples taken by the City from the lagoon confirmed that sewage was prevented from reaching the lagoon. While the spill violated discharge prohibitions contained in the Sanitary Sewer Overflow Waste Discharge Requirements, through their early detection and quick response the City of Encinitas Staff avoided a potentially harmful impact to the beneficial uses of San Elijo Lagoon and the Pacific Ocean.

5. Sanitary Sewer Overflows (SSOs) (*Attachment B5a-f*)

Staff Contact: Chris Means

The following is a summary of the sewage spills occurring during September through December 2011 and reported and certified by December 31, 2011. Sewage Collection Agencies report Sanitary Sewer Overflows (SSOs) on-line at the State Water Board's CIWQS database pursuant to the requirements of State Water Board Order No. 2006-0003-DWQ (*General Statewide Waste Discharge Requirements for Sewage Collection Agencies*). Reports on sewage spills are available on a real-time basis to the public from the State Water Board's webpage at: https://ciwqs.waterboards.ca.gov/.

Because of the characteristics of untreated wastewater, sewer overflows pose a significant threat to several different types of beneficial uses of waters of the state, including habitat and ecosystem beneficial uses. Untreated wastewater typically contains high levels of ammonia. In waters affected by sewer overflows, the levels of ammonia can be toxic to aquatic organisms. Untreated wastewater also typically contains high levels of organic material. In waters affected by sewer overflows, decomposition of this organic material can cause dissolved oxygen levels to drop below levels needed for aquatic organisms to survive.

Untreated wastewater also typically contains high levels of nutrients. In waters affected by sewer overflows, these nutrients, along with nutrients released from the decomposition of organic material in untreated wastewater, can result in increased growth of algae. Though it may not occur until conditions are conducive to algae growth, which may be months after occurrence of a sewer overflow. Decomposition of dead algae can cause oxygen levels to decrease below levels needed for aquatic organisms to survive. This cycle of increased levels of nutrients, algal

blooms, algal decomposition, and decreased levels of dissolved oxygen, which is known as eutrophication, is of particular concern in water bodies where dilution is limited and where the hydraulic residence times are long. Eutrophic conditions can persist in such waters for many years.

To the extent that aquatic organisms in a water body are unable to survive because of high levels of ammonia and/or low levels of dissolved oxygen, the habitat and ecosystem related functions and beneficial uses of that water body are diminished. For example, reduced abundance of benthic invertebrates in a coastal lagoon resulting from a sewer overflow can reduce the availability of food for shore birds that feed on such organisms.

Public Spills: During September 2011, there were 15 SSOs from public systems in the San Diego Region reported in the on-line State Water Board CIWQS database. These SSOs included 4 spills of 1,000 gallons or more and 7 spills reaching surface waters, including storm drains. The combined total volume of reported sewage spilled from all publicly-owned collection systems for the month of September 2011 was 2,629,885 gallons.

The majority of the sewage spilled during September 2011 was a result of the region-wide power outage that occurred on September 8, 2011. As a result of the power outage two City of San Diego pump stations failed and discharged 2,431,550 gallons to Los Penasquitos Creek, Los Penasquitos Lagoon and ultimately Torrey Pines State Beach. Additionally, the City discharged 193,120 gallons of untreated sewage into Sweetwater River and ultimately San Diego Bay. The San Diego Water board has issued an investigative order regarding these two large spills, and the investigation is ongoing.

During October 2011, there were 15 SSOs from public systems in the San Diego Region reported in the on-line State Water Board's CIWQS database. These SSOs included 5 spills of 1,000 gallons or more and 6 spills that reached surface waters including storm drains. The combined total volume of sewage spills reported from all publicly-owned collection systems for the month of October 2011 was 59,495 gallons.

During November 2011, there were 10 SSOs from public systems in the San Diego Region reported in the on-line State Water Board's CIWQS database. These SSOs included 1 spill of 1,000 gallons or more and 4 spills that reached surface waters including storm drains. The combined total volume of sewage spills reported from all publicly-owned collection systems for the month of November 2011 was 14,495 gallons.

During December 2011, there were 8 SSOs from public systems in the San Diego Region reported in the on-line State Water Board's CIWQS database. These SSOs included 3 spills of 1,000 gallons or more and 4 spills that reached surface waters including storm drains. The combined total volume of sewage spills reported from all publicly-owned collection systems for the month of December 2011 was 9,935 gallons.

Reported Private Spills: Forty five discharges of untreated sewage from private laterals were reported during September through December 2011 by the collection agencies pursuant to San

Diego Water Board Order No. R9-2007-0005 (*Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*). These private lateral spills included no spills of 1,000 gallons or more and 13 spills that reached surface waters, including storm drains. The combined total volume of reported sewage discharges from private lateral systems for the months of September through December 2011 was 5,285 gallons.

September - December 2010 and 2011Comparison:

Month	Rainfall Total (In.)	Public SSOs	Private SSOs
September 2010	0.03	14	16
September 2011	0.13	15	15
October 2010	2.18	13	11
October 2011	0.46	15	29
November 2010	0.88	11	13
November 2011	3.12	10	10
December 2010	5.00	34	15
December 2011	0.86	8	14

Attached are Six tables titled:

B5a. "September 2011 Summary of Public Sanitary Sewer Overflows in Region 9"
B5b. "October 2011 Summary of Public Sanitary Sewer Overflows in Region 9"
B5c. "November 2011 Summary of Public Sanitary Sewer Overflows in Region 9"
B5d. "December 2011 Summary of Public Sanitary Sewer Overflows in Region 9"
B5e. "Sep - Oct 2011 Summary of Private Lateral Sewage Discharges in Region 9"
B5f. "Nov - Dec 2011 Summary of Private Lateral Sewage Discharges in Region 9"

Additional information about the San Diego Water Board SSO regulatory program is available at: http://www.waterboards.ca.gov/sandiego/programs/sso.html.

6. Expedited Payment Program for Mandatory Minimum Penalties

Staff Contact: Rebecca Stewart

Sweetwater Authority, Richard A. Reynolds Desalination Facility, San Diego.

On December 5, 2011, Sweetwater Authority accepted a conditional resolution and waived its right to a hearing (Acceptance and Waiver) regarding five mandatory penalties of $3,000 each for reported violations of effluent limitations prescribed in San Diego Water Board Order No. R9-2010-0012, *Waste Discharge Requirements and NPDES Permit for the Sweetwater Authority, Richard A. Reynolds Desalination Facility, Discharge to the Lower Sweetwater Basin*.

The effluent limitations for copper, nickel and phosphorus were reportedly exceeded between July 2010 and January 2011. Sweetwater Authority has agreed to pay the $15,000 mandatory minimum penalty required by Water Code section 13385, rather than contest the alleged violations. Notice of the proposed settlement agreement was posted on our web page on December 16, 2011 for a 30 day public comment period that ended on January 16, 2012. No comments were received. The San Diego Water Board's Executive Officer intends to execute the Acceptance and Waiver as a stipulated order assessing the uncontested penalty amount pursuant to Water Code section 13385. Funds will be deposited into the statewide Cleanup and Abatement Account. More information regarding the proposed settlement is available at http://www.waterboards.ca.gov/sandiego/water_issues/programs/compliance/acl_complaints.shtml.

7. Enforcement Actions

Staff Contact: Jeremy Haas

During the month of December 2011, the San Diego Water Board initiated the following enforcement actions:

December 2011 Enforcement Actions	Number
Cleanup and Abatement Order Addenda	3
Notices of Noncompliance with Storm Water Enforcement Act of 1998	2
Notice of Violation	1
Staff Enforcement Letters	4
Total	10

A summary of recent regional enforcement actions is provided below. Additional information on violations, enforcement actions, and mandatory minimum penalties is available to the public from the following on-line sources:

State Water Board Office of Enforcement webpage at:
http://www.waterboards.ca.gov/water_issues/programs/enforcement/

California Integrated Water Quality System (CIWQS)
http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml

State Water Board GeoTracker database:
https://geotracker.waterboards.ca.gov/

Cleanup and Abatement Orders (CAO)
Kinder Morgan Energy Partners, Mission Valley Terminal, San Diego
Addendum No. 7 to CAO No. 92-01 was issued to Kinder Morgan Energy Partners on December 20, 2011. The CAO was issued in 1992 in response to the unauthorized discharge of petroleum hydrocarbons to soil and groundwater at facilities collectively referred to as the Mission Valley Terminal. The addendum adapts the Monitoring and Reporting program to reflect results that demonstrate remediation monitoring is no longer necessary in the primary off-terminal LNAPL

zone. Additional information on the cleanup activities to date and the purpose of the revised monitoring requirements are provided in Part B of this month's EO report.

Chevron Environmental Management Company, Service Station No. 9-8719, San Juan Capistrano
Addendum No. 1 to CAO No. R9-2010-0019 was issued on December 6, 2011 to the Chevron Environmental Management Company to reduce the frequency and analyses required for the groundwater monitoring program. The revisions are appropriate to evaluate remedial performance objectives, natural attenuation, and plume delineation.

Chevron Environmental Management Company, Service Station No. 9-3417, San Juan Capistrano
Addendum No. 2 to CAO No. R9-2009-0124 was issued on December 6, 2011 to the Chevron Environmental Management Company to reduce the frequency and analyses required for the groundwater monitoring program. The revisions are appropriate to evaluate remedial performance objectives, natural attenuation, and plume delineation.

Notices of Noncompliance with Storm Water Enforcement Act of 1998
Our Planet Recycling, Escondido
A second Notice of Noncompliance was sent on December 20, 2011 to Our Planet Recycling for failure to enroll in the statewide General Industrial Storm Water Permit Order No. 97-03-DWQ. The Notice is the second to inform the discharger that, pursuant to Water Code section 13399.30, failure to enroll will subject it to mandatory penalties. If a Notice of Intent to enroll is not submitted within 30 days of the second Notice, the violation will be subject to a mandatory penalty of not less than $5,000 per year of noncompliance plus staff costs pursuant to Water Code section 13399.33.

American Cab Company, San Diego
A second Notice of Noncompliance was sent on December 20, 2011 to American Cab Company for failure to enroll in the statewide General Industrial Storm Water Permit Order No. 97-03-DWQ. The Notice is the second to inform the discharger that, pursuant to Water Code section 13399.30, failure to enroll will subject it to mandatory penalties. If a Notice of Intent to enroll is not submitted within 30 days of the second Notice, the violation will be subject to a mandatory penalty of not less than $5,000 per year of noncompliance plus staff costs pursuant to Water Code section 13399.33.

Notice of Violation (NOV)
Padre Dam Municipal Water District, Padre Dam Water Reclamation Facility, Santee
An NOV was issued to Padre Dam Water Reclamation Facility on December 7, 2011 for reporting and effluent violations of Order No. R9-2009-0037. Reporting violations include seven instances of failure to monitor and report pH, specific conductivity, turbidity, coliforms, biochemical oxygen demand, and odor. The NOV also cites three violations of effluent limitations for total recoverable manganese, turbidity, and dissolved oxygen. In addition, the daily average effluent limitation for flow rate was exceeded three times. The violations occurred in 2009 and 2010.

Staff Enforcement Letters (SEL)

US Navy Public Work Graving Dock, San Diego

An SEL was issued to the US Navy on December 28, 2011 for violations of Order No. R9-2003-0265 pertaining to the Public Work Graving Dock. Numerous reporting, and sampling violations are cited covering the period May 2007 through September 2011.

Eastern Municipal Water District, Temecula Valley Regional Water Reclamation Facility

An SEL was issued to the Eastern Municipal Water District on December 30, 2011 for three violations of the daily maximum effluent limitation for coliform in Order No. 2000-165 that occurred between March 31 and July 2, 2011.

San Diego Zoo Safari Park, Escondido

An SEL was issued to the San Diego Zoo Safari Park on December 30, 2011 for five violations of the coliform maximum effluent limitations established in Addendum No. 1 to Order No. 99-04 that occurred in October 2011.

Carlsbad Municipal Water District, Carlsbad Water Recycling Facility,

An SEL was issued to the Carlsbad Municipal Water District on December 12, 2011 for 35 violations of Order No. R9-2001-0352. The daily average turbidity effluent concentration and the daily maximum iron effluent limitation were exceeded one time each. The daily maximum manganese effluent limitation was exceeded 32 times. The violations occurred from April through September 2011.

8. Financial Assistance Grant and Loans Programs

Staff Contact: Laurie Walsh

Clean Water Act (CWA) 319(h) Nonpoint Source (NPS) 2012 Grant Program

The State Water Resources Control Board (State Water Board), Division of Financial Assistance is accepting applications for Nonpoint Source (NPS) Grant Program (Grant Program) funds totalling $4.5 million. The Grant Program supports planning, assessment, and implementation activities to improve water quality and restore beneficial uses in watersheds identified by the NPS Program that are subject to Total Maximum Daily Load (TMDL) mandated pollutant load reductions. Funds for the Grant Program are appropriated by Congress under Section 319(h) of the Clean Water Act (CWA 319[h]) to restore waters impaired by NPS pollution. Grant funding is available on a per project basis in amounts between $75,000 to $125,000 for TMDL planning and assessment projects and $250,000 to $750,000 for TMDL implementation projects. A minimum match of 25% of the total project cost is required, but may be waived or reduced for projects that directly benefit a disadvantaged community. Eligible applicants include public agencies, non-profit organizations and Indian Tribes. Eligible applicants requesting funds from the Grant Program were required to submit initial proposals by January 12, 2012 using the State Water Board's online Financial Assistance Application Submittal Tool (FAAST) system at https://faast.waterboards.ca.gov.

Applicants for two projects located in the San Diego Region were subsequently invited to submit full grant proposals. The County of San Diego plans to submit a full TMDL implementation project proposal titled, *Nutrient Source Reduction Program in the Rainbow Creek Watershed*. If grants funds are awarded, the County of San Diego's project will implement the Rainbow Creek Nutrient TMDL. The Los Penasquitos Lagoon Foundation (Foundation) plans to submit a full planning project proposal titled, *Los Penasquitos Lagoon Sediment and Fresh Water Management Plan*. If grants funds are awarded, the Foundation's planning project will contribute to development of the Los Penasquitos Lagoon sediment TMDL.

For detailed information on the NPS Grant Program eligibility requirements, visit the State Water Board's CWA 319(h) NPS Program Solicitation webpage at: http://www.waterboards.ca.gov/water_issues/programs/nps/solicitation_notice.shtml

Integrated Regional Water Management (IRWM) Planning

Proposition 84 - IRWM

The Department of Water Resources (DWR) is accepting applications for the second and final round of Integrated Regional Water Management Grant Program (Grant Program) funding that will provide approximately $9 million in grant funds. The Grant Program is aimed at encouraging water management agencies to work cooperatively towards improving the quality, quantity, and reliability of local and imported supplies through integrated water resources planning and implementation projects. Funds for the grant program were appropriated under Proposition 84, *The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006* (Proposition 84), which was approved by California voters in 2006. Proposition 84 provides grant funding for projects that support integrated water resources management planning and implementation consistent with an IRWM Plan. There are currently three designated IRWM planning areas in the San Diego Region:

- San Diego IRWM Region:
- South Orange County IRWM Group
- Upper Santa Margarita IRWM Group

Eligible applicants are the local water management agencies that submit an application on behalf of a designated IRWM planning region and certain non-profit organizations. The second round of funding is limited to applicants seeking planning grant funding for the development or revision of an IRWM Plan through individual IRWM or interregional planning efforts. An interregional proposal is a proposal that involves more than one IRWM Region. Applicants must demonstrate that a minimum of 25% of the total project costs will be paid for with non-State funds.

DWR released the IRWM Planning Grant Proposal Solicitation Package (PSP) for the second round of planning grant funding in December 2011. DWR will hold application workshops in January and February 2012 to answer questions about the second round solicitation. For information on the upcoming workshops, prospective applicants should visit the DWR website at http://www.water.ca.gov/irwm/integregio_planning.cfm

A complete application and all supporting documentation must be received at DWR by 5:00 p.m. on March 9, 2012.

In May 2011 the DWR posted a listing of the final awards for Round 1 Proposition 84 IRWM Implementation Grants. The San Diego County Water Authority received $7,900,000, the County of Orange received $2,316,780, and the Rancho California Water District received $2,167,000. This grant funding will be used to fund projects throughout the San Diego region for sustainable landscaping, regional recycled water use, invasive species removal, nutrient management, water conservation, and water data management. Additional information can be found on the following IRWM Regional Management Group websites.

San Diego IRWM Region - www.sdirwmp.org.
South Orange County IRWM Group - http://www.ocwatersheds.com/wma_IRWM.aspx
Upper Santa Margarita IRWM Group - https://www.ranchowater.com/irwmp.aspx

Proposition 1E- Storm Water Flood Management
In August 2010 the DWR solicited applications for the first round of IRWM Storm Water Management funding from a $300 million grant fund authorized by Proposition 1E, *The Disaster Preparedness and Flood Prevention Bond Act of 2006*. This part of the DWR's IRWM Grant Program is aimed at funding projects that manage storm water runoff to reduce flooding and are consistent with IRWM Plans. The projects must also be consistent with applicable Regional Water Board Basin Plans, not be part of the State Plan of Flood Control, and yield multiple benefits which may include groundwater recharge, water quality improvements, ecosystem restoration benefits, and reduction of stream erosion and sedimentation. Eligible applicants include local water and flood management agencies engaged in the IRWM planning process. Applicants are required to demonstrate a 50% funding match.

In December 2011 DWR awarded a total of $177.6 million in grant funds to 21 projects located throughout California. Two of these projects summarized below are located in the San Diego Region:

- The City of Escondido's Lake Wohlford Dam Replacement Project received $14.9 million in grant funding.

- The Santa Margarita Water District's Gobernadora Creek Project to construct a multipurpose basin to intercept creek flows and provide storm detention, treatment of urban runoff and a source of recycled water supply received $5 million in grant funding.

For additional information go to the DWR website at:
http://www.water.ca.gov/irwm/integregio_stormwaterflood.cfm

Proposition 84 Storm Water Grants Program
The State Water Board, Division of Financial Assistance has recently solicited applications for the Proposition 84 Storm Water Grant Program (Grant Program) funds totaling $90 million. The Grant Program supports planning, monitoring, and implementation activities for the reduction

and prevention of storm water contamination of rivers, lakes, and streams. Approximately $8 million is available to finance storm water planning and monitoring projects. Approximately $42 million is available in the first round of funding for storm water projects implementing 1) Low impact development (LID) and other practices to infiltrate, filter, store, evaporate, or retain runoff in close proximity to its source, and 2) TMDL related projects in water bodies subject to TMDL mandated pollutant load reductions. Grant funding is available on a per project basis in amounts between $100,000 to $1 million for planning and monitoring projects and $250,000 to $3 million for implementation projects. A minimum match of 10% for planning and monitoring projects and 20% for implementation projects is required but may be waived for state agencies or reduced for projects that benefit a disadvantaged community. Eligible applicants are restricted to local public agencies including any city, county, city and county, district, or joint powers authority comprised entirely of local public agencies.

The State Water Board released the Storm Water Grants Concept Proposal Solicitation Package in November, 2011. Concept proposals for both the planning and monitoring project solicitation and the Round 1 implementation project solicitation were due by 5:00 pm on January 31, 2012 using the State Water Board's online FAAST system at: https://faast.waterboards.ca.gov

For detailed information on eligibility requirements visit the State Water Board's Proposition 84 Strom Water Grant Program webpage at:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/prop84/index.shtml

Clean Water State Revolving Fund Program (CWSRF)

The State Water Board, Division of Financial Assistance accepts applications for Clean Water State Revolving Fund (CWSRF) financing of eligible water quality projects on a continuous basis. The CWSRF program, established under the Clean Water Act, offers low interest financing agreements for eligible projects. Annually, the program disburses between $200 million and $300 million to eligible projects including, but not limited to, construction of publicly-owned facilities for wastewater treatment, water reclamation, and storm water treatment. Eligible projects also include expanded water body use projects including implementation of NPS projects or programs, and development and implementation of estuary conservation and management plans.

An eligible applicant can include any city, town, district, or other public body created under state law, a Native American tribal government or an authorized Native American tribal organization having jurisdiction over disposal of sewage, industrial wastes or other waste; and any designated and approved management agency under Section 208 of the Clean Water Act. Financing terms include, interest rates equal to ½ of the most recent General Obligation (GO) Bond Rate at the time of preliminary funding commitment, financing terms of 20 years and up to 30 years for small disadvantaged communities, financing amounts of up to a maximum $50 million per agency/per year (may be waived under certain circumstances), and a repayment schedule which begins 1 year after completion of construction.

For detailed information on eligibility requirements visit the State Water Board's CWSRF webpage at: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml

9. GAMA Program Report Identifies Natural and Human Factors Affecting Groundwater Quality in the San Diego Region

Staff Contact: John Anderson

The Groundwater Ambient Monitoring and Assessment Program (GAMA) recently released the latest report in a series on the *status* and *understanding* of groundwater quality in study units of the Priority Basin Project. The report, titled *Groundwater Quality in the San Diego Drainages Hydrogeologic Province, California*, was prepared by the U.S. Geological Survey (USGS) under contract with GAMA. Of note are the report's findings that concentrations of arsenic, boron, vanadium, isotopes of uranium and thorium, trihalomethanes (THMs), and the anthropogenic chemical MtBE have been detected in public water supply wells above federal and California benchmarks for protecting human health. These chemicals were detected above thresholds in about 14 percent of the aquifer systems in the San Diego Basin study area.

The Report has two components: the *status assessment* and the *understanding assessment*. The *status assessment* characterized the quality of groundwater resources based on data from groundwater samples analyzed for over 350 chemical and microbial constituents, and water-quality indicators. Using statistical comparisons, the *understanding assessment* identified the natural and human factors that affect groundwater quality. Results from these evaluations were used to help explain the occurrence and distribution of selected constituents in the study unit.

Vanadium, arsenic, and radioactive constituent concentrations did not significantly correlate to urban or agricultural land uses. Thus, the concentrations of these constituents are not likely affected by anthropogenic activities and are naturally occurring. Boron and THMs concentrations significantly correlated with urban land uses indicating that anthropogenic activities contribute these constituents to groundwater. Total dissolved solids (TDS) significantly correlated to agricultural land uses pointing to agricultural practices as a contributing factor to TDS in groundwater. Concentrations of MtBE, a former gasoline additive, negatively correlated to the distance to the nearest leaking underground storage tank, indicating that these point sources are the significant contributing factor for MtBE concentrations. Interestingly, MtBE was not detected in any sample collected greater than 500 meters from a leaking tank. Perchlorate concentrations correlated to agricultural land use at the 90 percent confidence level indicating that the use of nitrate fertilizers, use of Colorado River water, or both are contributing sources of perchlorate to groundwater.

The USGS Fact Sheet (#2011-3111) describing the groundwater results, including a map of the area, can be found at the following link: http://pubs.usgs.gov/fs/2011/3111/
The report can be viewed by going to the following link:
http://www.waterboards.ca.gov/gama/docs/san_diego_sir.pdf.

The purpose of the GAMA Program is to provide a comprehensive groundwater-quality baseline for the State of California. Other goals of the GAMA Program are to comprehensively assess statewide groundwater quality, to improve ambient groundwater-quality monitoring, and to increase the availability of information about groundwater quality to the public.

10. Clean Water Act Section 401 Water Quality Certification Actions Taken From October to December 2011 (*Attachment B-10*)

Staff Contact: Chiara Clemente

Section 401 of the Clean Water Act (CWA) requires that any person applying for a federal permit which may result in a discharge of pollutants into waters of the United States obtain a water quality certification that the specific activity complies with all applicable state water quality standards, limitations, requirements, and restrictions. The most common federal permit that requires a 401 Certification is a CWA Section 404 permit, most often issued by the Army Corps of Engineers, for the placing of fill (sediment, rip rap, concrete, pipes, etc.) in waters of the U.S. (i.e. Ocean, bays, lagoons, rivers and streams).

Upon receipt of a complete 401 Certification application, the San Diego Water Board may either certify the project or deny certification, with or without prejudice. In cases where there are impacts to waters of the U.S., the San Diego Water Board may issue a conditional certification. The certification can be either in the form of a conditional certification document approved by the Executive Officer, or Waste Discharge Requirements (WDRs) adopted by the San Diego Water Board. In the case where a federal permit is not required because impacts have been determined to be only to waters of the State, the San Diego Water Board may adopt WDRs. Table B-10 (attached) contains a list of actions taken during the months of October, November, and December 2011.

Starting in July 2011, some revisions have been made to the reporting tables. In an attempt to measure Tier 4 (Environmental) outcomes related to this program, the report will now include a table titled, "Summary of Total Impacts and Mitigation" for each reporting quarter. This table reports the total impacts to jurisdictional waters authorized by this program, along with the associated mitigation. The resulting information, however, remains an imprecise measure of the actual conditions. For example, the data can be skewed depending on what is considered "self-mitigating" and how mitigation is categorized (i.e. establishment, restoration, or enhancement). More importantly, the data relies on the assumption that all the mitigation required is implemented and successful, and does not take into consideration any additional impacts resulting from illegal fill activities. The San Diego Water Board will continue to evaluate more precise methods of reporting actual Tier 4 outcomes, in this and other programs.

Public notification of pending 401 Water Quality Certification applications can be found on the San Diego Water Board's web site at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/publicnotices/. Certifications issued since January 2008 can also be found on our web site at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/401projects.shtml.

For a complete list of State-issued general orders, please refer to http://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders.shtml.

Part C – Statewide Issues of Importance to the San Diego Region

1. Toxicity Policy Update

Staff Contact: Kristin Schwall

The State Water Board has prepared a draft *Policy for Toxicity Assessment and Control (Policy)* for adoption consideration in late spring or early summer 2012. The Policy is being developed to address the lack of a statewide consistent approach among the regional water boards to toxicity controls and monitoring, which compromises protection of aquatic life beneficial uses in water bodies throughout California and creates inequities in the toxicity requirements for permitted dischargers. Regional Water Board Basin Plan narrative toxicity objectives are the primary basis currently used to establish toxicity requirements in NPDES permits, Waste Discharge Requirements (WDRs), and conditional waivers for discharges to inland surface waters, enclosed bays, and estuaries. A statewide methodology has not been established to derive numeric toxicity effluent limitations and regional water board approaches to implementing the narrative toxicity objectives in discharge permits, interpreting toxicity data, and enforcement measures all vary both within and across regional water boards. The Policy addresses these issues through the establishment of new numeric water quality objectives for chronic and acute toxicity, a standardized method of toxicity data analysis, uniform monitoring and reporting requirements, and provisions for consistent and transparent compliance determinations.

Next Steps

Currently, the Policy's technical merits are undergoing expert review. Upon completion of this peer review, the Policy will be modified if necessary, and then released for public review. The State Water Board expects to consider adoption of the policy in late spring or early summer 2012. The Policy will apply statewide to discharges typically regulated under NPDES permits, WDRs, and conditional waivers for discharges to inland surface waters, enclosed bays, and estuaries, excluding ocean waters of California, which are addressed in the California Ocean Plan.

Policy Overview

Toxicity occurs when undefined pollutants or the aggregate effects of known toxicants in waste discharges adversely affect beneficial uses. When originating from an effluent, this aggregate effect is typically referred to as "whole effluent toxicity" (WET). Toxicity tests estimate the potential effects of discharges on the survival, growth and reproduction of test species, and are used to determine compliance with the narrative objectives for toxicity established in Regional Water Board Basin Plans. The proposed new Policy is designed to standardize toxicity provisions for dischargers and facilities subject to NPDES Permits, WDRs and conditional waivers to provide regulatory consistency and enhanced water quality protection in a number of key areas including:

- Establishment of clear and transparent numeric objectives for chronic and acute toxicity;
- Adoption of U.S. EPA's Test of Significant Toxicity (TST) as statewide protocol for determining compliance;
- Establishment of a statewide effluent limitation derivation methodology;
- Use of a new reasonable potential analyses to determine applicability of policy elements;
- Establishment of uniform toxicity monitoring requirements for wastewater, storm water and some nonpoint source dischargers; and
- Specialized requirements for storm water discharge permits and channelized dischargers.

A complete discussion of the Policy and alternatives considered can be found in the Policy document and supporting staff report at the State Water Board website at:

http://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/tx_ass_cntrl.shtml

The website contains a document with a summary of prevailing comments on the draft Policy and staff responses from the workshop held on August 22, 2011. Two of the chief issues of contention are summarized below:

U.S. EPA's Test of Significant Toxicity (TST)
Commenters on the Policy claim that establishing the U.S. EPA's TST statistical methodology as statewide protocol for determining discharge compliance will result in unsubstantiated determinations of toxicity. The TST is a new statistical methodology developed by U.S. EPA to assess the whole effluent toxicity (WET) measurements of wastewater effects on specific test organisms' abilities to survive, grow, and reproduce. It does not alter existing biological toxicity testing methods, but establishes a statistical method of analyzing the data to determine if the sample is toxic. U.S. EPA has approved the TST statistical approach for analyzing WET test data for NPDES permit compliance. The State Water Board has taken the position in the Policy that the TST has been adequately peer reviewed, is superior to other methodologies used in the past, and that the false positive error rate of the method (the error rate at which a sample is declared toxic but in fact is truly non-toxic) is no greater than five percent overall. San Diego Water Board staff anticipates that the TST method for determining discharge compliance with the toxicity objective will be retained in the Policy when it is adopted by the State Water Board.

Numeric Effluent Limitations for Toxicity in Permits
Under the Policy the Regional Water Boards must implement numeric effluent limitations for chronic toxicity for NPDES-permitted wastewater discharges or point source WDR dischargers found to have reasonable potential to cause or contribute to toxicity in receiving waters. The policy does not require the establishment of numeric effluent limitations for toxicity in permits for Phase I and Phase II municipal storm water dischargers and individual industrial storm water dischargers. The Regional Water Boards, however, will have the discretion to apply numeric effluent limitations for toxicity in permits for these dischargers as well as the construction and industrial storm water dischargers regulated pursuant to general

NPDES permits. Many commenters on the Policy believe numeric objectives and effluent limitations are inappropriate for toxicity, claiming that the test methods are subject to significant variability and are ultimately poor indicators of toxicity affects in receiving water. State Water Board staff maintains that the Policy requirements for numeric objectives and effluent limitations are appropriate for controlling chronic and acute toxicity and are fully consistent with federal and state water quality law. The San Diego Water Board anticipates that the provisions for numerical effluent limitations will be retained in the Policy when it is adopted by the State Water Board.

Implications for San Diego Region Dischargers

The San Diego Water Board has been an early leader in implementing numeric acute and chronic toxicity effluent limitations for NPDES –permitted discharges of certain major industrial wastewater and storm water discharges since the early 1990s. These discharges include the SeaWorld San Diego discharge to Mission Bay and discharges to San Diego Bay from boatyards, shipyards, and military installations. The current NPDES Permit toxicity requirements for these dischargers are consistent with the direction of the Policy but will require some revision to be fully consistent with all of the requirements of the Policy. Some of the NPDES permit proceedings setting numeric toxicity effluent limitations for these discharges have been highly contentious and subject to discharger petitions and litigation, partially due to the previous lack of a statewide approach on toxicity controls. This has placed a significant permitting burden on the San Diego Water Board during a time of increasingly severe resource constraints. The statewide Policy will provide clarity, consistency, and predictability to the toxicity requirements and is expected to markedly reduce the resources needed for permitting dischargers. Later in 2012 the San Diego Water Board will be considering reissuance of the Naval Base San Diego NPDES permit and a general boatyard NPDES permit for discharges to San Diego Bay which will be subject to the Policy upon its adoption. Preliminary drafts of these NPDES permits contain numeric effluent limitations for toxicity based on the TST statistical methodology used in the draft toxicity Policy.

2. California Native Plant Society Conference

Staff Contact: Chiara Clemente/Jeremy Haas

On January 10, 2012, Jeremy Haas and Chiara Clemente moderated a water quality workshop at the annual conference of the California Native Plant Society (CNPS). CNPS is an organization dedicated to the preservation of California native flora. Workshop attendees included federal and local government, private consultants, land managers, non-governmental organizations, and interested citizens. Presenters from public, private, academic, and non-governmental organizations described the benefits and obstacles to using native plants, rather than exotic vegetation and/or hardscape, throughout the watershed to protect, enhance, and restore water quality and beneficial uses.

Presentations highlighted projects using native plants for erosion control, storm water treatment, low-impact development, habitat restoration, and to improve in-stream water quality. Many presenters provided data demonstrating water quality improvements. Benefits of using native

plants as alternatives to exotic vegetation or engineered hardscape included lower long-term maintenance costs, enhanced wildlife habitat, improved community beautification and pride, and improved water quality in and downstream of such projects.

The primary obstacles identified by speakers and attendees included lack of education and awareness by local governments, architects, landscape professionals, and the public of the benefits and uses of native plants and the long-term problems with alternatives. In addition, the entrenched culture of using concrete and exotic vegetation in new and redevelopment is a disincentive affecting the supply of native plants. Speakers described ways they have responded to, and in many cases, overcome such obstacles.

Speakers and attendees recommended the water boards strongly encourage and incentivize the use of native plants throughout all their programs. Currently, native plants are generally only required by the San Diego Water Board in compensatory habitat mitigation projects, grant-funded projects, and supplemental environmental projects. Other regulations and permit requirements, such as for landfill cover, low-impact development, and storm water best management practices, recognize the benefits of native plants, but do not require their use by dischargers. Workshop participants identified these programs, as well as phytoremediation situations, as ones in which water board policy, regulation, or statutes applicable to site-level projects could provide broader benefits to water resources within the watershed.

The San Diego Water Board wishes to thank the presenters from the Southern California Coastal Water Research Project, City of Laguna Niguel, RBF Consulting, Caltrans, University of California-Santa Barbara, and the Council for Watershed Health.

Additional information regarding California native plants is available on-line from the CNPS web site **http://www.cnps.org/** and the Calflora database **http://www.calflora.org/**.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

Significant NPDES Permits, WDRs, and Actions of the San Diego Water Board

February 8, 2012

APPENDED TO EXECUTIVE OFFICER'S REPORT

DATE OF REPORT
Februrary 3, 2012

TENTATIVE SCHEDULE
SIGNIFICANT NPDES PERMITS, WDRS, AND ACTIONS
OF THE SAN DIEGO WATER BOARD

Action Agenda Item	Action Type	Draft Complete	Written Comments Due	Consent Item
March 14, 2012 ***San Diego Water Board Office***				
Update on Development of Biological Objectives *(Busse)*	Information Item	NA	NA	NA
San Clemente Water Reclamation Facility *(Osibodu)*	Master Reclamation Permit update	100%	12-Jan-12	Yes
Fallbrook Public Utility District, Plant 1 *(Neill)*	NPDES Permit Reissuance	10%	Jan. 9, 2012	No
Waste Discharge Requirements, Jonas Salk Elementary School *(Monji)*	New WDRs	75%	TBD	Maybe
Shipyard Sediment Cleanup: Non-evidentiary Meeting to Deliberate, and Certify, or Deny FEIR. *(Melbourn)*	EIR Adoption	100%	TBD, if necessary	No
Shipyard Sediment Cleanup: Non-evidentiary Meeting to Deliberate, and adopt, modify, or reject TCAO/DTR *(Melbourn)*	TCAO Adoption	95%	TBD, if necessary	No
April 11, 2012 ***Orange County***				
Update from the Three Integrated Regional Water Management (IRWM) Groups *(Walsh)*	Information Item	NA	NA	NA
NPDES Permit Reissuance with the South Orange County Waste Authority - San Juan Creek Ocean Outfall *(Joann)*	NPDES Permit Reissuance	80%	March 19, 2012	No
NPDES Permit Reissuance with the South Orange County Waste Authority - Aliso Creek Ocean Outfall *(Joann)*	NPDES Permit Reissuance	80%	March 19, 2012	No
Nomimation of Santa Ysabel Chevron to State Emergency, Abandoned and Recalcitrant Site List (*Pease*)	Resolution	0%	NA	no
May 9, 2012 ***San Diego Water Board Office***				
Responding to Comments *(Barker, Chan and Carlisle)*	Information Item	NA	NA	NA
Rescission of Six WDRs for sand and gravel/asphalt batch concrete grinding facilities *(Tobler*)	WDR Rescissions	0%	Mar. 14,2012	Yes
US Navy--Naval Base San Diego (including Graving Dock) - San Diego Bay *(Schwall)*	NPDES Permit Reissuance	80%	Mar. 19, 2012	No
Total Maximum Daily Load for Sediment to Los Penasquitos Lagoon (Henning)	Hearing: Basin Plan Amendment	90%	29-Mar-12	No
Reissuance of General Permit for Closed, Abandoned, Inactive Landfills *(Grove)*	Updated Waste Discharge Requirements	95%	Mar. 14, 2012	No
New General Permit for Closed, Abandoned, Inactive Burn Sites *(Grove)*	New Waste Discharge Requirements	95%	Mar. 14, 2012	No

THE CITY OF SAN DIEGO

November 3, 2011

Via Email to dgibson@waterboards.ca.gov and
bneill@waterboards.ca.gov and Hand Delivery

Mr. David W. Gibson, Executive Officer
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Mr. Ben Neill, P.E.
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Re: City of San Diego's Comments on Kinder Morgan Energy Partners Proposed Flow Increase for its Mission Valley Terminal Remediation Dewatering Discharge to Murphy Canyon Creek; CRU: 240988:bneil; WDID No: 9 000000506

Dear Gentlemen:

Thank you for the opportunity to comment on the request by Kinder Morgan Energy Partners ("Kinder Morgan") for an increase in the average daily discharge of treated groundwater to Murphy Canyon Creek ("Creek") from 795,000[1] gallons per day to 1.26 million gallons per day. These comments are submitted jointly by the City of San Diego ("City") Transportation & Storm Water Department ("TSWD") and Public Utilities Department.

The City prefaces these comments with the caveat that it has appealed the Regional Water Quality Control Board's ("RWQCB") adoption of the related Time Schedule Order No. R9-2011-0052 ("TSO"), which improperly allows Kinder Morgan to pollute Murphy Canyon Creek with Total Dissolved Solids ("TDS") in concentrations which significantly exceed the Creek's receiving water limits for TDS as established in the Basin Plan. That appeal is pending and, although your letter discouraged comments related to the TSO, the City is compelled to point out that a significant issue raised on appeal is the impropriety of separating the decision setting TDS effluent limits from the decision on increasing the flow of treated groundwater to the Creek.

[1] According to the City's records, the City was not provided an opportunity to comment on the increase of the flow rate from 505,000 gallons per day to 795,000 gallons per day; but was only informed of the RWQCB's approval of this increase after the fact.

These two decisions are intricately interrelated because, if the flow increases, the mass loading will increase based on the interim effluent limits of the TSO. These two factors cannot logically be separated. Amongst other relief, the City has requested remand of that issue to the RWQCB and requested that the TDS effluent limits and flow increase request be rejoined for rehearing and action by the RWQCB itself. Thus, the City believes that any decision by the Executive Officer that would allow any increase in the discharge flow rate is premature.

Moreover, these comments are offered under a full reservation of rights with respect to the issues on appeal and any other issues related to this matter. That said, the City offers the following comments and proposal in response to Kinder Morgan's pending request for a flow rate increase. First, discharges to the City's storm water conveyance system, including the Creek, are prohibited in the absence of the City's prior approval of the discharge. The permit under which the RWQCB has allowed these discharges for many years expressly prohibits the discharge of extracted ground water waste into the City's municipal separate storm sewer system ("MS4") *without the prior approval of the MS4 operator*. [Order No. R9-2008-0002 NPDES No. CAG919002 ("Order") §II.D].[2] The City has never approved any discharge by Kinder Morgan of extracted groundwater to the Creek, and the RWQCB has not enforced this requirement of Kinder Morgan's permit. That permit violation must be rectified. The City's proposal in that regard is set forth later in this letter.

Second, that same permit expressly requires the discharger to demonstrate alternatives to discharging extracted groundwater waste into the MS4 and to demonstrate why it is technically or economically infeasible to implement these alternatives before any such discharge is permissible. [Order §II.D]. This demonstration is a prerequisite to obtaining the MS4 operator's consent to the discharge in the first place. Kinder Morgan must demonstrate infeasibility to the City's satisfaction as well as to the satisfaction of the RWQCB. But this requirement has not been met. The discharger has simply been allowed to implement and continue this practice in complete disregard of this permit condition.

In contrast, the City has repeatedly argued for and submitted scientific analyses suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume. Re-injection via recharge basins or injection wells is being used successfully in other jurisdictions in California under similar circumstances, i.e., the recharging of treated groundwater recovered under pump and treat remediation. Other alternatives for beneficial re-use of this water also may be available. But those alternatives have not been studied and demonstrated to the City's satisfaction because Kinder Morgan has ignored this requirement, and the RWQCB has not enforced it. The City would expect the RWQCB, as the agency responsible for enforcing Kinder Morgan's permit, to require Kinder Morgan to perform a comprehensive evaluation of alternatives to the current waste of this water and demonstrate to the City's satisfaction that it is technically or economically infeasible to implement alternatives, e.g., re-injecting it into the aquifer (now that

[2] The prior permit under which the RWQCB allowed these discharges also contained the same prohibition. [Order No. 2001-96 NPDES No. CAG919002 §A.11]

the manganese treatment system is apparently functioning properly)[3] or recycling treated groundwater On-Terminal through a recharge basin.

Third, the RWQCB has the power to order Kinder Morgan to compensate the City for the cost of replacing the water Kinder Morgan extracts from the City's aquifer to clean-up the contamination Kinder Morgan created. California Water Code section 13304(a) provides broad authority to the Regional Boards to include the costs of replacement water as part of clean-up and abatement orders. Specifically, Regional Boards "may require the provision of, or payment for, uninterrupted replacement water service . . . to each affected public water supplier . . . ." Cal. Water Code § 13304(a).

The City is a public water supplier and has Pueblo rights to the use of the groundwater of the Mission Valley Aquifer. These are the oldest and highest priority water rights in California. The use of the City's ground water is an *essential* component of the remediation system unilaterally selected by Kinder Morgan and accepted by the RWQCB. The City had no choice in the selection of this remedial technology and indeed advocated early on for the use of different remedial technology which would have minimized the use of the City's water. Those pleas were ignored, and the City has been subjected for over a decade to the taking of its water without any compensation. The sole reason for this use of the City's water is the remedial methodology chosen by Kinder Morgan to fulfill its obligations to clean up its mess at the lowest possible cost. Why should taxpayers continue to bear the burden of Kinder Morgan's failures? The City urges the RWQCB to remedy this inequity and exercise its discretion to order Kinder Morgan to pay the City for the cost to replace the water Kinder Morgan extracts.

Fourth, just how the proposed increased flow rate will aid in expediting remediation as claimed in the TSO has yet to be explained. Kinder Morgan's application included only cursory statements in this regard. The City understands that staff reviewed some documentation provided by Kinder Morgan, but no technical analysis has been made available to the City or the public. The City is perplexed that such a request would even be entertained without the technical backup materials.

Finally, with respect to obtaining the City's approval of the discharge of extracted groundwater from Kinder Morgan's remediation system to the City's MS4 system, we would recommend the City consider such approval, for a period of one year, under the following conditions:

1. Kinder Morgan pays the City, on a monthly basis, for the replacement cost of groundwater Kinder Morgan extracts from the City's Mission Valley Aquifer to clean-up the contamination; and
2. Kinder Morgan completes and submits within 2 months a <u>comprehensive</u> analysis demonstrating alternatives to discharging extracted groundwater waste into the MS4 and demonstrating why it is technically or economically infeasible to implement these alternatives for some or all of the discharge; and
3. If the analysis is thorough and shows to the City's satisfaction that it is technically or economically infeasible to implement any of the alternatives other than a live stream discharge to the City's MS4 system, then:

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[3] Arcadis 3Q 2011 GW Monitoring & Remediation Progress Report, p. 46.

a. To avoid maintenance impacts to the Creek, Kinder Morgan must be required to discharge to a location other than the Creek, such as directly to the San Diego River; and
b. Kinder Morgan must bring TDS levels in the discharge promptly into compliance with the Basin Plan standard of 1500 mg/L; and
c. Kinder Morgan must be required to conduct monthly monitoring (and quarterly reporting to the City) of the extracted groundwater treatment system; and
d. Kinder Morgan must be required to produce to the City on a quarterly basis all data related to wells, pumping tests, and water quality for all work performed by Kinder Morgan, its consultants or contractors on City property; and
e. Kinder Morgan must obtain annual approval from the City for continued discharges to its MS4 system.

Thank you again for the opportunity to comment on this very important issue. Please contact us if you have any questions. We look forward to working with you to reach a mutually acceptable resolution to this matter.

Sincerely,

Alex Ruiz
Assistant Director
Public Utilities Department

Kris McFadden
Deputy Director
Transportation & Storm Water Department

cc: Julie Chan, RWQCB
John Anderson, RWQCB
Craig Carlisle, RWQCB
Robert Morris, RWQCB
Sea McClain, RWQCB
Dr. Paul Johnson
Dr. Margaret Eggers
Scott Martin, Kinder Morgan
Rick Ahlers, Arcadis
Roger Bailey, City of San Diego
Kip Sturdevan, City of San Diego
Marsi Steirer, City of San Diego
Almis Udrys, City of San Diego
Ruth Kolb, City of San Diego
Greg Cross, City of San Diego
Dr. Richard Jackson, Geofirma
Rob Sengebush, INTERA
Richard Opper, Counsel for City of San Diego
Fritz Ortleib, Deputy City Attorney
Grace Lowenberg, Deputy City Attorney

SFPP, LP
Operating Partnership

Attachment B1b, EO Report
Kinder Morgan, Mission Valley Terminal

November 16, 2011

Mr. Ben Neill
Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, Mission Valley Terminal, San Diego, California (TSMC:40 0054)

Dear Mr. Neill:

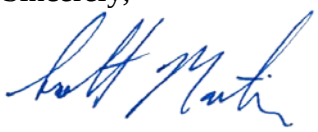
SFPP, L.P. operating partnership of Kinder Morgan Energy Partners, L.P. ("Kinder Morgan") provides the attached responses to written comments submitted in response to the Proposed Flow Increases at the Mission Valley Terminal Remediation Dewatering Project under Waste Discharge Requirements ("WDRs") Order No. R9-2008-0002, NPDES No. CAG919002.

Kinder Morgan has reviewed the comments and offers the following submittals in response. First, we enclose a letter from the Principal and Senior Civil Engineers from ARCADIS, U.S., Inc., in charge of the ongoing remediation efforts. The ARCADIS letter addresses the technical issues raised by the comments received and helps match the technical data in the record with those comments that are unsubstantiated. Second, we enclose a letter from Katharine Wagner, from Downey Brand LLP, addressing legal arguments raised by the City of San Diego. Third, please find enclosed a report summarizing portions of the analytical groundwater model assessing the need to increase discharges from the remediation site. (Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011, ARCADIS, U.S.)

Kinder Morgan provides this detailed response with the aim of thoroughly addressing each concern raised in the comments submitted. However, since many of the comments did not provide new or revised technical information, we note that much of our response relates back to information already before the Regional Water Quality Control Board.

Please address any questions in this matter to me at scott_martin@kindermorgan.com.

Sincerely,



Scott Martin, P.G
Manager, Remediation

Enclosures

cc: Nancy Van Burgel, KMEP
Rick Ahlers, Arcadis
Marcelo Garbiero, Arcadis
Katharine Wagner, Downey Brand LLP
David Gibson, RWQCB
Bob Morris, RWQCB
Julie Chan, RWQCB
Craig Carlisle, RWQCB
Sean McClain, RWQCB
Grace Lowenberg, City of San Diego

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ENVIRONMENT

Mr. Ben Neill
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject:
Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project,
Mission Valley Terminal, San Diego, California (TSMC:40-0054)

Date:
November 16, 2011

Contact:
Marcelo Garbiero, P.E.

Phone:
562.496.3000

Email:
marcelo.garbiero@arcadis-us.com

Our ref:
CM010143.0078

Dear Mr. Neill:

ARCADIS U.S., Inc. (ARCADIS) has prepared the following letter on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan) providing responses to matters raised by the City of San Diego (City) with regard to the proposed increase to the daily average discharge flow rate permitted under the existing enrollment under Order No. R9-2008-0002, NPDES Permit No. CAG919002 (General Permit). The City of San Diego (City) Public Utilities Department and Transportation & Storm Water Department jointly submitted written comments to the Regional Water Quality Control Board, San Diego Region (RWQCB) on November 3, 2011. These comments were submitted in response to the RWQCB's October 21, 2011 Notice of Opportunity to Submit Written Comments Regarding Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project.

Kinder Morgan appreciates the opportunity to respond and comment on these matters. At the core of this issue is the intention to accelerate the cleanup of groundwater to comply with the compliance criteria set forth in Directive No. 3 of Addendum No. 5 to Cleanup and Abatement Order (CAO) No. 92-01. As stated in the original request for enrollment modification,[1] the objective of accelerating the

[1] ARCADIS U.S., Inc. Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 24 August 2010.

groundwater remediation activities is to "comply with the criteria ahead of the specified deadline" of December 31, 2013, which is in the interest of all stakeholders.

ARCADIS has performed groundwater modeling to assess the necessity for increasing discharge beyond the currently permitted 550 gallons per minute (gpm) and to assess the sufficiency of the requested 850 gpm discharge limit.[2] A summary of this analysis is being submitted to the RWQCB with this package, and confirms the necessity of the requested increase.

Kinder Morgan continues to take aggressive steps to meet its obligations regarding the cleanup of the City's groundwater in accordance with the requirements set forth by the RWQCB. Kinder Morgan has undertaken a decisive and adaptive remedial strategy using robust technologies known to be effective in many subsurface conditions. All known alternatives for disposal of the treated groundwater have been thoroughly evaluated and presented to the RWQCB most recently in the application for re-enrollment under the General Permit. Technical and economic feasibility evaluation has shown that discharge to surface waters under the existing General Permit is the only feasible option considering technical, regulatory, and economic factors.

Kinder Morgan remains focused on taking steps that are protective of beneficial uses of groundwater and that provide the maximum benefit to the people of the State. ARCADIS is unaware of any viable beneficial re-use options currently available for the treated groundwater. However, as the RWQCB knows, Kinder Morgan has in the past offered to provide the City with water treated by the remediation system, and Kinder Morgan remains committed to discussing options for beneficial re-use of treated groundwater as the City proposes in their written comments.

The existing cleanup of the Mission Valley alluvial groundwater and the protection of that groundwater through the maintenance of a hydraulic containment barrier remain dependent on a continuous and reliable option for discharge of treated groundwater, as has been the case for many years. The City objects to this discharge to Murphy Canyon Creek in its comments despite its importance to the timely cleanup of the

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[2] ARCADIS U.S., Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011.

groundwater. Delays in approval of the increased rate of discharge will jeopardize the successful completion of these objectives, and further delay is not justified.

Detailed Response to City Comments

In keeping with the RWQCB's attempt to convene a technical meeting between the RWQCB, the City and Kinder Morgan, we understood the October 21, 2011 request for comments to seek technical information regarding the proposed increase in flow and Murphy Canyon Creek channel maintenance. The City's letter provides no technical information in this regard and only refers to a prior City submittal of "scientific analysis suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume."

Although there is no new technical support in the City's comments, for the RWQCB's ease of reference, ARCADIS provides specific technical responses to issues referred to by the City. The City provided comments under five categories:

1. Alleged non-compliance with NPDES General Permit requirements;

2. Alleged availability and feasibility of alternate discharge or re-use options;

3. Alleged right to compensation for "use of the City's water;"

4. Request for a technical analysis demonstrating the effects of flow increase on the pace of cleanup; and

5. City demands for conditional approval of discharge to MS4.

The City's comments do not discuss any potential impacts on the channel, including any "impacts on vegetation management, scour and build-up of sedimentation and erosion in the channel" referred to in minutes from their recent meeting with the RWQCB.[3] The City also does not provide any technical support for its prior assertions that the proposed *flow increase* would affect these conditions within

[3] Meeting between the RWQCB staff and the City of San Diego. Meeting Notes October 4, 2011, 10 – 11 a.m.

Murphy Canyon Creek. As ARCADIS and Kinder Morgan have previously explained, the existing discharge and proposed increased discharge do not add sedimentation to the Creek. In the treated groundwater, sediments and suspended and settleable solids are reduced by the treatment process to extremely low concentrations, well below those found in Murphy Canyon Creek and in urban runoff. The presence of the discharge flow could possibly mobilize minor amounts of sediments already present in the half-mile section of Murphy Canyon Creek between the discharge point and the San Diego River, but only to a very limited and localized extent since the overwhelming majority of sediment redistribution is associated with larger flows typically occurring with precipitation events. Any maintenance associated with the presence of sediments in the receiving water would not be the result of Kinder Morgan's discharges permitted under Order No. R9-2008-0002, which do not contribute sediments to the system.

Issue #1: Alleged Non-Compliance with NPDES General Permit Requirements

The City claims that "discharges to the City's storm water conveyance system, including the [Murphy Canyon] Creek, are prohibited in the absence of the City's prior approval of the discharge." Additionally, the City states that the General Permit "expressly prohibits the discharge of extracted groundwater waste into the City's municipal separate storm sewer system (MS4) *without the prior approval of the MS4 operator."*

- Kinder Morgan does not need the City's consent for continuing its discharge or amending its enrollment. Separate legal comments submitted by Kinder Morgan simultaneously with this letter explain the City's apparent misunderstanding of the General Permit and the discharge. The RWQCB has regulated the discharges to Murphy Canyon Creek under its NPDES program, at least as far back as 1996. The City's claim that it must approve the discharge has not previously been raised. Review of the permit indicates that the provision on MS4 approval is part of the background permit information regarding the *initiation* of discharges to an MS4. We find no "prohibition" of discharges without MS4 approval, or a requirement for MS4 operator satisfaction with details of the discharge. Section II.D itself cites its purpose as to "encourage communication" "in an effort to avoid misunderstandings and concerns over the types of discharges covered by this WDR."

The City comments that the General Permit "expressly requires the discharger to demonstrate alternatives to discharging extracted groundwater waste into the MS4 and to demonstrate why it is technically or economically infeasible to implement these alternatives before any such discharge is permissible." The City states that "This demonstration is a prerequisite to obtaining the MS4 operator's consent to the discharge in the first place. Kinder Morgan must demonstrate infeasibility to the City's satisfaction as well as to the satisfaction of the RWQCB." Additionally, the City states that "Other alternatives for beneficial re-use of this water also may be available. But those alternatives have not been studied and demonstrated to the City's satisfaction … ."

- The General Permit Notice of Intent (NOI) requires the applicant to "Identify and discuss technical and economic feasibility of alternative disposal options" under "Items Required for Determining Eligibility." This is a requirement imposed by the RWQCB for its own use in the application process. It is not clear why the City presumes that this allows their satisfaction in the matter to dictate whether the RWQCB can approve a General Permit application for amendment of enrollment.

- The technical and economic feasibility of alternate disposal options were presented to the RWQCB in the NOI.[4] This requirement to the RWQCB has been fulfilled. The evaluation submitted assessed aquifer re-injection, discharge to a Publicly Owned Treatment Works (POTW), and discharge to a water reclamation facility.

- With respect to alternatives for "beneficial re-use", Kinder Morgan has always been open to such options, if they exist, and in meetings and correspondence has expressed willingness to provide the treated groundwater to the City, unconditionally. The City has never responded to these offers with any proposal for use of the treated groundwater. Kinder Morgan remains, as always, willing to evaluate and discuss the feasibility of such options if the City or any other interested party has any to suggest. However, the remediation project should not be delayed in the meantime.

[4] LFR an ARCADIS Company. Re-Enrollment for Coverage under NPDES General Permit No. CAG919002 (WDR). 11 March 2009.

Given the current lack of feasible alternatives, amendment of the project's enrollment under the General Permit should proceed.

Issue #2: Alleged Availability and Feasibility of Alternate Discharge or Re-Use Options

The City claims to have presented "scientific analyses suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume." Further, the City states that "re-injection via recharge basins or injection wells is being used successfully in other jurisdictions in California under similar circumstances… ."

- Kinder Morgan is unaware of any "scientific analyses" provided by the City that addresses all of the pertinent issues necessary to support the claim that re-injection is not only beneficial but technically and economically feasible.

The City calls for "comprehensive evaluation of alternatives to the current waste of [groundwater] and demonstrate to the City's satisfaction that it is technically or economically infeasible to implement alternatives, e.g., re-injecting [treated groundwater] into the aquifer (now that the manganese treatment system is apparently functioning properly) or recycling treated groundwater On-Terminal through a recharge basin."

- With respect to the City's claim the current discharge of treated groundwater is a "waste" of the resource; the issue has been discussed at length by the RWQCB, the City, and Kinder Morgan. The City continues to mischaracterize this issue and fails to provide any legal or technical basis for its claims. As stated in the RWQCB letter to the City dated July 16, 2009 entitled "Response to City of San Diego's Letter, Dated June 25, 2009, Mission Valley Terminal, Cleanup and Abatement Order No. 92-01 and Addenda Thereto":

  > *"No evidence has been submitted [by the City] that demonstrates that the remedial activities are diminishing the quantity of this resource. The aquifer is in hydrologic contact with the San Diego River and is recharged in part by the San Diego River. Groundwater elevation data from the site does not show that Kinder Morgan's groundwater extraction is creating a condition of near or long term overdraft of the aquifer. Furthermore, the City's statement that the*

aquifer cannot be developed in its present contaminated state is simply untrue. Addendum No. 5 to the CAO requires Kinder Morgan to submit a Drinking Water Replacement Contingency Plan that includes a provision for Kinder Morgan to provide uninterrupted replacement water service, which may include wellhead treatment, if the City were to develop a water supply project before the cleanup is complete. In fact, Kinder Morgan has stated numerous times that they would provide wellhead treatment to any off-terminal area that could be impacted by petroleum releases from the Mission Valley Terminal."

- A plan to develop this aquifer has not been provided to any concerned party to date. The aquifer is not a contained reservoir that is being drawn from and emptied. The area of groundwater extraction is continually under recharge from upstream areas. This is evidenced by the ongoing levels of groundwater extraction that are necessary to maintain a dewatered state in the LNAPL remediation area. Any suggestion that there is a fixed amount of water that is being wasted ignores basic hydrogeologic concepts and mischaracterizes available information on local hydrology.

- With respect to the issue of re-injection of treated groundwater, Kinder Morgan and ARCADIS remain of the opinion that the risks posed by such a strategy at this site far outweigh the potential remedial benefits that may be realized. The City continues to press the claim that mineral fouling is not a concern since the current groundwater treatment plant is successfully removing manganese. To reiterate comments provided previously:

    - The groundwater is very high in naturally occurring minerals. There are on average over 2,000 milligrams of naturally occurring total dissolved solids in every liter of groundwater. That is over two grams of salts in every liter of groundwater. That high mineral content is essentially supersaturated in the water, and there is a strong tendency for those minerals to come out of solution and produce scale.

    - Dissolved manganese and iron constitute less than 1 percent of the total *natural* mineral content of the groundwater in the Mission Valley aquifer. Calcium and magnesium are the more significant components of the total mineral load, comprising nearly half of the

total mineral content. Total calcium and magnesium concentrations, termed "hardness", are not significantly affected by the presence of petroleum constituents in groundwater. The treated discharge has a total hardness of 900 to 1000 mg/L, which is classified as "Very Hard" by the United States Geologic Survey (USGS). Harder waters have a greater tendency to precipitate and scale. Further, as noted by the US Army Corp of Engineers (USACE), "Indicators of Incrusting Water" include "total carbonate hardness in excess of 300 ppm"[5].

Issue #3: Alleged Right to Compensation for "use of the City's Water"

The City indicates that "the RWQCB has the power to order Kinder Morgan to compensate the City for the cost of replacing the water Kinder Morgan extracts from the City's aquifer to clean-up the contamination…" on the basis of California Water Code (CWC) section 13304(a) and the existence of "Pueblo rights to the use of the groundwater of the Mission Valley Aquifer."

- Since the issuance of Addendum No. 5 on April 13, 2005, Kinder Morgan is obligated by Directive No. 9 of Addendum No. 5 to provide a plan for monitoring, remediation, and replacement water service in the event that a public or private water supply well is installed downgradient of contamination. Such a water supply well does not exist and further, to our knowledge, the City has not provided a plan to develop this aquifer with water supply wells or sought a permit from the California Department of Health Services for such water supply wells.

- Kinder Morgan has repeatedly, and prior to issuance of Addendum No. 5 to CAO 92-01, offered to provide the treated groundwater generated to the City for beneficial re-use. The City has never responded to these offers with any proposals for beneficial use of the groundwater.

- Comments submitted by Kinder Morgan legal counsel further address the requirements of Water Code Section 13304 and the City's assertion that the

[5] USACE. "Design, Construction, and Maintenance of Relief Wells": pg 3-6 Table 3-1. 29 May 1992.

Regional Board should require that Kinder Morgan pay the City for extracted groundwater.

Issue #4: Request for a Technical Analysis Demonstrating the Effects of Flow Increase on the Pace of Cleanup

The City questions "how the proposed increased flow rate will aid in expediting remediation as claimed in the TSO".

- ARCADIS has previously explained the benefits of the flow increase on the remediation project. Groundwater modeling has confirmed the necessity for increasing discharge beyond the currently permitted 550 gpm.[6] Both the necessity and sufficiency of the requested increase are discussed in the ARCADIS Technical Memo dated November 17, 2011, submitted to the RWQCB as part of this package.

Issue #5: City Demands for Conditional Approval of Discharge to MS4

The City describes a series of conditions under which they propose to consider providing approval of the discharge of treated groundwater for a period of one year. Increasing the discharge for one year will not meet the needs of the remediation project or the requirements of the CAO. The comments submitted by Kinder Morgan's legal counsel discuss whether the City has authority to set conditions. However, ARCADIS offers the following technical responses to the City's proposed conditions, as follows:

Condition 1: "Kinder Morgan pays the City, on a monthly basis, for the replacement cost of groundwater Kinder Morgan extracts from the City's Mission Valley Aquifer to clean-up the contamination"

- The issue of replacement water is discussed under Issue #3 above.

[6] ARCADIS U.S., Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011.

Condition 2: “Kinder Morgan completes and submits within 2 months a comprehensive analysis demonstrating alternatives to discharging extracted groundwater waste into the MS4 and demonstrating why it is technically or economically infeasible to implement these alternatives for some or all of the discharge”

- This is discussed under Issues #1 and 2 above.

Condition 3: “If the analysis is thorough and shows to the City's satisfaction that it is technically or economically infeasible to implement any of the alternatives other than a live stream discharge to the City's MS4 system, then:

Condition 3a: “To avoid maintenance impacts to the Creek, Kinder Morgan must be required to discharge to a location other than the Creek, such as directly to the San Diego River; and”

- The City provides no technical support to the claim that the proposed flow increase would have an adverse impact on the conditions within the Creek. Moving the discharge to the San Diego River would be extremely costly, and the benefits have not been justified in the City’s comments.

Condition 3b: “Kinder Morgan must bring TDS levels in the discharge promptly into compliance with the Basin Plan standard of 1500 mg/L; and”

- The Regional Board’s October 21, 2011 request for comments expressly excludes TDS issues from its scope. The TSO establishes the mechanism by which the RWQCB will address TDS levels in the discharge.

Condition 3c: “Kinder Morgan must be required to conduct monthly monitoring (and quarterly reporting to the City) of the extracted groundwater treatment system; and”

- Monitoring of the treated groundwater discharge is submitted to the RWQCB on a monthly basis as part of the Self Monitoring Report program. These documents are in the public domain and available to the City and any other interested parties.

Condition 3d: “Kinder Morgan must be required to produce to the City on a quarterly basis all data related to wells, pumping tests, and water quality for all work performed by Kinder Morgan, its consultants or contractors on City property; and”

- Monitoring and well installation information is provided to the RWQCB as required under the CAO and General Permit. These documents are in the public domain and available to the City and any other interested parties.

Condition 3e: "Kinder Morgan must obtain annual approval from the City for continued discharges to its MS4 system."

- We find no requirement for annual approvals in the General Permit. Kinder Morgan's legal counsel will address the basis for any specific demands by the City for conditions on the RWQCB's approval of the discharge.

If you have questions regarding the material presented in this report, please contact either of the undersigned.

Sincerely,

ARCADIS

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Principal Civil Engineer

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November 16, 2011

Mr. Ben Neill
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to City of San Diego Public Utilities Department's and Transportation & Storm Water Department's Comments on Tentative Order No. R9-2011-0052 to Provide a Time Schedule Order for Kinder Morgan Energy Partners to Comply with a Discharge Prohibition in its NPDES Permit No. CAG919002 for its Mission Valley Terminal Dewatering Discharge to Murphy Canyon Creek, Mission Valley Terminal, San Diego, California (TSMC:40-0054)

Dear Mr. Neill:

The City of San Diego (City) Public Utilities Department and Transportation & Storm Water Department jointly submitted written comments to the Regional Water Quality Control Board, San Diego Region (RWQCB) on November 3, 2011 in response to the RWQCB's October 21, 2011 Notice of Opportunity to Submit Written Comments Regarding Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project. On behalf of our client, SFPP, L.P., operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan), we appreciate the opportunity to address the City's legal arguments and provide the following response to the City's comments.

It is important to note that the City provided no new information in their comments to the RWQCB, opposing the proposed increased flows. Rather, the City only offered a detailed list of conditions and impediments it wishes to have imposed on Kinder Morgan to encumber the remediation efforts which have been long underway and are nearing completion. The City did not substantiate their proposed conditions with technical data, nor did the City provide a proper legal basis for their arguments.

I. There is no Legal Basis for the City's Allegations that the NPDES General Permit Requires City Approval and Satisfaction of City Conditions

Over a decade after discharges from the remediation system to Murphy Creek commenced, the City has suddenly asserted that the discharge enters the City's MS4, and that the City's prior approval is required for the continuation of Kinder Morgan's discharge under NPDES Permit No. CAG919002 (General Permit). The City cites Provision II.D, which is one of the conditions to enrollment described in the General Permit. Many projects are discharging extracted or pumped groundwater throughout the area, including projects operated by the City itself. This appears to be the first time the City has asserted the right to impose drastic conditions, such as payment for extracted water, as a condition to the RWQCB's General Permit enrollment, much less as a condition to continued enrollment of existing projects. We have no choice but to conclude that the City is attempting to place hurdles in the path of progress in the remediation project, simply in order to further its agenda in litigation it has filed against Kinder Morgan in court. The RWQCB should not jeopardize its efforts to achieve effective remediation of the site, by allowing the City to enmesh the RWQCB into the separate dispute between the parties.

While the City's comments appear a transparent effort to achieve other ends, we provide the RWQCB specific observations on some of the City's specific assertions.

A. Provision II.D is Irrelevant because Murphy Canyon Creek is not an Municipal Separate Storm Sewer System (MS4)

Provision II.D is inapplicable to this discharge, because Murphy Canyon Creek is a receiving water, identified in the enrollment as a water of the United States, and is not the City's MS4. We note that the MS4 NPDES permit covering the City's MS4 defines MS4 as follows:

> "A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, . . .; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26."

(*See* Order No. R9-2007-0001 section C-6.) The definition does not encompass waters of the U.S. identified as receiving waters. Thus, Murphy Canyon Creek is not an MS4.

B. Provision II.D does not Provide Authority to Stop or Impose Conditions on the Discharge

Even if the RWQCB were to find this is a discharge into an MS4, Provision II.D would not create authority on the part of the City to prohibit or prescribe specific conditions on the discharge. Provision II.D is not a discharge prohibition. It appears in a background information section of the General Permit, directing that permittees contact an MS4 operator before initiating discharges to its MS4. The provision appears intended simply to convey information to the

RWQCB and the discharger about the existence of an MS4 that may also have separate considerations. (*See* NPDES No. CAG919002 II.D ("This requirement encourages communications between the Dischargers enrolled under this WDR and local agencies responsible for MS4s in an effort to reduce misunderstandings and concerns over the types of discharges covered by this WDR").) The provision makes no mention of MS4 approvals being required for amendments to existing enrollments.

In any event, arguments concerning prerequisites to commencement of the discharge are moot, and the City should not be permitted to raise this hurdle at this juncture in the project. The Mission Valley Terminal's discharge is an existing project that has been enrolled under three successive versions of the same NPDES permit, Permit No. CAG919002, since at least 1996. (Order Nos. 96-41, 2001-0096, and 2008-0002). This discharge commenced at least fifteen years ago, and a costly and complex remediation system has been designed and installed under RWQCB oversight, in reliance on its continuation, and with the City's knowledge. The City has participated extensively in RWQCB proceedings, admits that language similar to Provision II.D existed in prior Order No. 2001-96, has been copied on multiple amendments increasing the discharge rate, and has never before raised this issue.

The City's letter suggests it may never have heard about the project's enrollment or the amendment to the enrollment that allowed increased flow in late 2009. To the contrary, the enrollment amendment letter dated December 31, 2009, shows copies to Kris McFadden, Deputy Director, City of San Diego Storm Water Pollution Prevention Division, and Marsi Steirer, Deputy Director, City of San Diego Water Department. The original enrollment under Order No. 2008-0002, dated June 23, 2009, was also copied to Mr. McFadden and Ms. Steirer.

While the City's knowledge of the discharge undoubtedly existed much earlier, we easily identified written correspondence to the City dating back to 1999, discussing the fact that the system discharges under an NPDES permit to Murphy Canyon Creek. A letter dated April 20, 1999 from Mark J. Sandon, Kinder Morgan Energy Partners L.P. to Joan Bennett, City of San Diego, Metropolitan Wastewater Department, applying for temporary discharge of treated groundwater to the City's sewer system for a maximum allowed term of two years, describes that the discharge was covered under NPDES Order No. 96-41 for discharge to Murphy Canyon Creek.

Over the years, Kinder Morgan designed and installed a costly and complex remediation system, under RWQCB oversight. It did so in reliance on its continued ability to discharge extracted groundwater, unaware that the City intended to block the discharge by requiring a prior approval and extracting money and detailed conditions as a prerequisite to continuing the discharge. Kinder Morgan would be seriously injured by delays in its ability to meet deadlines in the CAO.[1]

[1] Legally, any action by the City to terminate or seek termination of the discharge would also be barred by the doctrine of estoppel. Estoppel may be asserted against the government where justice and right require it. *City of Los Angeles v. Cohn* (1894) 101 Cal. 373, 377. The government will be bound by an equitable estoppel in the same

In sum, Provision II.D does not prevent the RWQCB from approving an amendment to the existing enrollment of this discharge under the General Permit. Nor should the City be allowed to raise this issue at this juncture, more than a decade after commencement of the discharge.

C. The RWQCB Lacks Authority to Impose the City's Proposed Conditions

The City claims that Provision II.D gives it ongoing veto power over the discharge, and the right to invent conditions to its satisfaction. It is legally impossible for an NPDES permit to grant the City new authority over a discharger. If the RWQCB had found a condition to enrollment under the General Permit lacking, the RWQCB's "remedy" would have been not to enroll the discharge, and thus to terminate it. This would have stopped the remediation project in its tracks, compromising hydraulic containment and causing migration of the plume. Reasonably, the RWQCB did enroll the discharge and, also reasonably, the City did not appeal the RWQCB's decision. The RWQCB should not entertain newly devised City conditions which condition continuation of the discharge on the extraction of steep payments from Kinder Morgan and which would delay critical groundwater remediation, on the strength of unsupported and vague technical arguments.

The City's list of demands cannot legally be imposed by the RWQCB under its authority to issue waste discharge requirements. Under Water Code Section 13263, the RWQCB is authorized to prescribe specific types of requirements, namely requirements "as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge ... in relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made, or proposed." Other than its request concerning TDS, which the RWQCB expressly omitted from the scope of the comments it would accept, the conditions urged by the City do not pertain to the nature of the discharge.

II. Water Code Section 13304 does not Support Requiring Kinder Morgan to Pay for Groundwater it Extracts

The City cites Water Code Section 13304(a) as support for its assertion that the RWQCB should require Kinder Morgan to compensate the City for water removed from the aquifer during remediation efforts. This is clearly an effort to enmesh the RWQCB in the City's attempt to seek damages from Kinder Morgan, which the City is pursuing in litigation in another forum. The RWQCB has no authority to award damages. (*People of California v. Kinder Morgan Energy Partners, L.P.*, (S.D. Cal., 2008) 569 F.Supp.2d 1073, 1081 ("the Water Boards have neither authority nor jurisdiction to award damages to injured parties").)

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manner as a private party when the elements requisite to such an estoppel against the private party are present and, the injustice that would result from the failure to uphold an estoppel is of sufficient dimension to justify any effect upon public interest or policy that would result from the raising of an estoppel. *Lentz v. McMahon* (1989) 49 Cal.3d 393, 400.

An NPDES permitting proceeding obviously provides no basis for asserting rights to payment for water. The City's request under Section 13304 would require amendment of the CAO, which is outside the scope of the current proceeding.

In addition, as noted in the ARCADIS Technical Letter responding to the City's comments, the CAO already addresses replacement water service, calling for action only if water were already being pumped by the City to produce water service. Section 13304 provides no basis to go further than the CAO's existing conditions. Under California Water Code section 13304(a), the RWQCB "may require the provision of, or payment for, *uninterrupted replacement water service*, which may include wellhead treatment, to each affected public water supplier or private well owner." (Emphasis added.) This language was added to Section 13304 in order to clarify the authority of Regional Boards to require alternative water supplies pursuant to a cleanup. *(See In The Matter of the Petitions of Olin Corporation and Standard Fusee, Incorporated,* (May 19, 2005) 2005 WL 5166379, at 1 (*"Olin"*).) If replacement water is ordered by the RWQCB it "shall have comparable quality *to that pumped by the public water system ... prior to the discharge of waste*." (*See* Wat. Code §13304(f), see also *Olin*, supra, 2005 WL 5166379 at 5 (ordering discharger to supply interim uninterrupted replacement water service (i.e., bottled water or equivalent), in accordance with California Water Code Section 13304 until long term uninterrupted water service is restored).) There has been no City water service from the aquifer, and thus no interruption and no basis for replacement of water service. Thus, Section 13304 provides no basis for ordering compensation to the City.

The RWQCB is not the forum to adjudicate water rights. However, for the RWQCB's general information, we provide a brief response to the City's assertion that the remediation project is somehow taking water in the Mission Valley Aquifer owned by the City. It is clear under California law that the City does not own the groundwater; its reference to groundwater as "its water" is inappropriate. Water rights in California are property rights allowing the *use* of water, not awarding ownership of the water. (*See* California Water Code §100, §102.)[2] The City is statutorily prohibited from preventing the use of water by others. (*See* California Water Code §106.5 (no municipality shall "prevent the appropriation and application of water in excess of its reasonable and existing needs to useful purposes by others").) Regardless, the RWQCB need not, and cannot, adjudicate water rights disputes in either an NPDES or CAO proceeding.

There is simply no basis for the RWQCB to act on the City's request for payment by Kinder Morgan for water. The RWQCB should promptly proceed to approve Kinder Morgan's request for amendment of its General Permit enrollment, in order to avoid delays that will jeopardize the Mission Valley Terminal's remediation project and the public interest.

[2] The City asserts Pueblo rights to use the groundwater. Pueblo rights are also fundamentally use-base rights. "No one has the right to more water than is reasonably necessary for the beneficial use to be served." *City of Los Angeles v. City of Glendale* (1943) 23 Cal.2d 68, 74-75. Pueblo rights are measured by the present need of the City "leaving the water accessible to others until such time as the city needs it." *Id.*

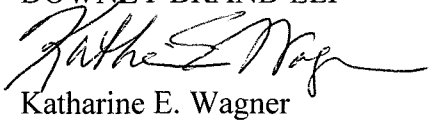
III. Conclusion

Overall the City's comments offer no new technical information. The City asserts a right to condition the proposed flow increases to Murphy Canyon Creek without any legal basis, and without providing any technical justifications for the conditions. The City argues that Kinder Morgan has insufficiently supported its request to the RWQCB, but nowhere does the City cite to specific deficiencies in the data already before the RWQCB. Instead, the City generally complains that existing data has not satisfied their concerns. As addressed in the ARCADIS letter accompanying these comments, Kinder Morgan has provided ample support for the proposed increases which will allow for the advancement of the remediation efforts.

Thank you for the opportunity to provide these comments. If you have any questions on these issues, we will be glad to discuss them further.

Very Truly Yours,

DOWNEY BRAND LLP



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California Regional Water Quality Control Board
San Diego Region
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San Diego, California 92123

ENVIRONMENT

Subject:
Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California (TSMC: 40-0054)

Date:
November 16, 2011

Contact:
Rick Ahlers

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Email:
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Our ref:
CM010143.0078

Dear Mr. Neill:

ARCADIS U.S. Inc. (ARCADIS) has prepared this technical memorandum for the Mission Valley Terminal, located at 9950 and 9966 San Diego Mission Road, San Diego, California, on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. This memorandum summarizes groundwater modeling performed in support of the proposed increase in the daily average discharge rate from the remedial extraction system currently operating in the on- and off-Terminal areas for the Mission Valley Terminal in San Diego, California (the Site). This increase in the average daily discharge rate is requested to allow for additional groundwater extraction that will accelerate cleanup of groundwater to meet the compliance criteria set forth in Directive No. 3 of Addendum No. 5 to Cleanup and Abatement Order 92-01, issued by the California Regional Water Quality Control Board, San Diego Region (RWQCB) ahead of the December 31, 2013 cleanup deadline. It is anticipated that this increased discharge rate will only be necessary until December 31, 2013, after which the average discharge is expected to decline.

The groundwater flow and transport model was originally developed using the finite element DYN groundwater flow and transport simulation code (CDM 1999; LFR 2004a, 2004b). The original model, created by Camp Dresser & McKee (CDM), was updated and re-calibrated twice by LFR Levine Fricke (LFR; now ARCADIS) Details regarding the earlier model construction, development, calibration, remedial design development, and future predictions can be found in the above-referenced modeling documentation reports.

The model was used to evaluate locations and proposed pumping rates for existing and more recently installed groundwater extraction wells, and to predict dissolved-phase concentrations of MTBE and TBA over time in the downgradient off-Terminal areas. The relevant groundwater cleanup goals were established for the Site by the Off-Terminal Corrective Action plan (LFR 2005), in compliance with Addendum No. 5, to meet both primary and secondary maximum contaminant levels as well as the DHS health-based advisory level for tertiary butyl alcohol (TBA).

A report describing the revisions, calibration and application of the groundwater model will be submitted to the RWQCB no later than December 15, 2011. The recent updates to the groundwater model included incorporation of additional data (soil boring logs, groundwater elevation measurements, hydraulic testing, and additional contaminant concentrations obtained since the last model update in 2004) into the existing geologic model, updates to model hydraulic properties, and model boundary conditions. Additionally, in order to distribute the model as broadly as necessary in a format that allows for detailed external review and evaluation, the original DYN model was converted to the public-domain flow and transport simulation codes MODFLOW-2000 (McDonald and Harbaugh 1988; Harbaugh et al. 2000) and MT3DMS (Zheng and Wang 1998). The updated and converted model was re-calibrated with groundwater elevation and contaminant concentration data up through May 2010. Details regarding the conversion to MODFLOW, additional modifications to the model boundary conditions and hydraulic properties, flow and transport model calibration, model validation and sensitivity analysis, and results of future predictions of the attainment of cleanup goals will be found in the groundwater model update report.

This memo gives a brief description of how the model was used to evaluate and predict the effectiveness of the current extraction well configuration and allocation of pumping to meet the off-Terminal, distal plume cleanup goals for groundwater by the 2013 deadline. It also explains how results of that evaluation led to additional extraction scenarios (additional wells and a greater volume of total pumping), and provides the rationale for the proposed increase in the current extraction system capacity, which is necessary to provide an acceptable degree of confidence in meeting the cleanup goals and objectives.

Representation of Future Hydrologic Conditions

The calibrated model was extended approximately 3.5 years into the future (from May 2010 to December 31, 2013) to evaluate future predictions of recovery well

capture and future predictions of the attainment of groundwater cleanup goals. To represent the potential range in future hydrologic and climatic conditions in the prediction of future plume migration and remedial system operation/effectiveness, three future hydrologic scenarios were considered:

- Average Conditions – each year includes a dry season based on an assumed average dry-season condition and a wet season based on average precipitation and streamflow conditions.

- Maximum Wet Conditions – each year includes the assumed average dry condition and a wet season based on a prediction of the most wet, or "wettest wet season" precipitation and streamflow conditions.

- Minimum Wet Conditions – each year includes the assumed average dry condition and a wet season based on a prediction of the least wet, or "driest wet season" precipitation and streamflow conditions.

Details regarding how boundary conditions were established to simulate the three hydrologic scenarios will be provided in the groundwater model update report.

Representation of the Dissolved-Phase Distal Plume for Future Predictions

Figure 1 shows the initial plume conditions at the start of the future prediction simulations. These initial future conditions were used in each of the future hydrologic scenarios and represent the distal dissolved phase plume simulated as a "lumped', or surrogate constituent "MTBE plus TBA" plume. The surrogate represents the combined masses of MTBE and TBA on a molar-equivalent basis. The molar-equivalent concentration of TBA is 0.84 percent of the MTBE concentration. In other words, 1 kilogram (kg) of MTBE has the same number of molecules as 0.84 kg of TBA, or equivalently, 100 µg/L of MTBE may transform (degrade) into 84 µg/L of TBA.

The surrogate approach was chosen based on observations of significant spatial and temporal variations in TBA degradation, and on the observations of a more uniform total bulk attenuation of MTBE plus TBA plume mass presented in the quarterly reports. This approach reduces the degrees of freedom in the uncertainty associated with the complex biogeochemical conditions observed within the plume footprint and provides a simplistic, yet conservative simulation of a plume undergoing average bulk attenuation mechanisms. This approach has been used in many fate and

transport models for chlorinated solvents and other organic chemical mixtures that undergo similar attenuation mechanisms (Heermann and Powers 1998; U.S. Environmental Protection Agency [USEPA] 1996). Recently, the USEPA conducted a study to evaluate using lumped or grouped chemicals for modeling the fate and transport of organic mixtures (USEPA Grant number R829355) . Results of that study indicate this approach is desirable for similar constituents because it simplifies the numerical modeling by reducing the number of calibration parameters without a significant loss of accuracy. The rationale for and approach to using a surrogate plume will be described in greater detail in the groundwater model update report.

Continuous monitoring of groundwater elevations and continued analysis of the effectiveness of the LNAPL dewatering system and hydraulic capture evaluations indicate the distal plume has been effectively cut-off (detached) from its former off-Terminal LNAPL zone source. Therefore, for the purposes of evaluating the attainment of cleanup goals in the off-Terminal area by the December 31, 2013 deadline, the model simulates only the transport of the dissolved-phase distal plume downgradient of the LNAPL area dewatering wells (RW-3A, RW-5A, and RW-7A) within the vicinity of the stadium parking lot. This is also reflected in Figure 1.

The concentrations and concentration distributions for the observed plume from the quarterly monitoring event conducted in May 2010 (second quarter 2010) were used to define the initial concentrations for the predictive simulations. In addition, based on the more recent observations of TBA concentrations in the recovery wells located within the plume core, and to be conservative in the predictions of plume cleanup, the future simulations assume that no further degradation of MTBE or TBA occurs.

The objective of the predictive transport simulations was to evaluate whether the current configuration of the distal extraction system and the additional extraction that would be obtained with the proposed system expansion would achieve the proposed cleanup goals by the end of 2013. The proposed cleanup goals for MTBE and TBA are 5 micrograms per liter (µg/L) and 12 µg/L, respectively. Since November 2009, most of the MTBE present in the distal plume has converted to TBA and is present only at relatively low concentrations, as regularly documented in the quarterly Groundwater Monitoring and Remedial Progress Reports for the Site. Because the transport model uses a combined MTBE plus TBA surrogate, the goal against which the model results are evaluated is the more stringent MTBE goal of 5 µg/L, equivalent to reaching surrogate concentrations of less than 4.2 µg/L by the end of 2013.

Simulated Extraction System Pumping

Groundwater extraction rates for the future predictions were assigned based on the assumption that the planned expansion of the groundwater extraction system will be implemented in November 2011. The locations of additional wells and the assumed total system extraction capacity of approximately 850 gpm are consistent with the information provided in the National Pollution Discharge Elimination System (NPDES) expansion proposal (ARCADIS 2010) and well installation work plan (ARCADIS 2011). Figure 2 shows the locations of the extraction wells currently in operation, as well as the more recently installed wells that are directly related to the discharge permit increase request.

To assign individual extraction well future pumping rates, observations of existing individual extraction well capacities and well and system duty cycles were considered, with the resulting assumption that a long-term average extraction rate of approximately 90 percent of the total expanded system capacity could be achieved. Rates for individual wells were allocated between containment wells at the mouth of Murphy Canyon (RW-35 through RW-37), the off-Terminal LNAPL dewatering area (RW-3/3A through RW-7/7A, RW-48, and RW-56), the expanded off-Terminal dewatering area (recovery wells RW-107 and RW-108), and what would be required for distal well extraction (RW-49 through RW-51, and RW-99 through RW-101) to maximize extraction at the downgradient edge of the distal plume in support of meeting the cleanup goals and objectives. Additionally, the remedial system expansion includes the addition of six new recovery wells (RW-109 through RW-114) installed at locations in between the current distal wells (as discussed below and as shown in Figure 2) (ARCADIS 2011).

Table 1 presents the total recovery well extraction rates for the end of the calibration period (May 2010) and future projections of flow based on assumptions regarding remedial system expansions outlined above. As shown in the table, the actual system extraction was specified from May 2010 to May 2011, and then projected from May 2011 through November 2011, based on plans at that time to re-allocate pumping from specific areas to enhance remediation at the distal end of the plume. At the time the simulations were conducted in May 2011, it was assumed that the proposed system discharge permit would be approved in November 2011.

Table 1 also includes the projected rates based on the recently submitted discharge permit increase. Under this scenario, the future simulations assume a total of 763 gpm will be the long-term average total pumping that can be obtained, with 437 gpm

allocated to the 12 most distal recovery wells (RW-49 through RW-51, RW-99 through RW-101, and RW-109 through RW-114). Results of these pumping allocations are discussed in the following section.

Prior to submittal of the recent discharge increase proposal, the total extraction assigned to the remaining time period in the future simulations (November 2011 through December 31, 2013) was approximately 550 gpm. Given the assumption that 90 percent of that total system flow could be achieved as a long term system average, the total predicted rate was approximately 495 gpm. Under this scenario, all of the difference in total extraction rate comes from the distal wells, including newly installed wells (RW-109 through RW-114), i.e., without the proposed permitted discharge, extraction from the distal plume would be reduced by more than 50 percent.

Results of the Predictive Simulations

As indicated above, prior to the recently proposed discharge permit expansion, a total projected extraction system pumping rate of approximately 495 gpm was allocated among existing extraction wells, with a focus on allocating as much pumping as possible to the distal wells in order to provide the most optimized projected cleanup. However, results of these preliminary simulations indicated the potential that a few localized areas of the simulated plume that may not reach the cleanup goals by the December 31, 2013 deadline. Given these results, additional simulations were performed using the increased pumping total of 763 gpm to assess the number of wells, well locations, and rates that would provide a high degree of confidence in meeting the remedial goals ahead of schedule to account for uncertainty in model predictions.

Figure 3 shows the simulated plume in the deep alluvium at the time that both remedial goals are met (i.e., 12 ug/L and 4.2 ug/L surrogate plume concentrations). As shown in the figure, the TBA goal of 12 ug/L is achieved approximately 14 months after the projected increase to a total system extraction of 763 gpm (January 2013). Likewise, the figure also shows the simulated plume in the deep alluvium when the effective MTBE goal of 4.2 ug/L is achieved, which occurs approximately 19 months after the projected increase to a total system extraction of 763 gpm (June 2013). Given that the model predicts attainment of these cleanup goals approximately 6 months before the CAO required date, we are confident that the proposed system expansion will achieve the remedial goals prior to December 31, 2013. Even though the model is well calibrated and conservatively assumes no future degradation of the

surrogate plume, some degree of uncertainty still exists, as with any predictive model. Therefore, given the inherent uncertainties, it is important that the system flow expansion be implemented as soon as possible.

If you have any questions about this submittal, please contact me.

Sincerely,

ARCADIS

C. Fredrik Ahlers, P.E.
Principal Civil Engineer
Project Technical Director
California Professional Engineer # C-66471

Attachments

Copies:
Scott Martin, KMEP
Nancy Van Burgel, KMEP

References

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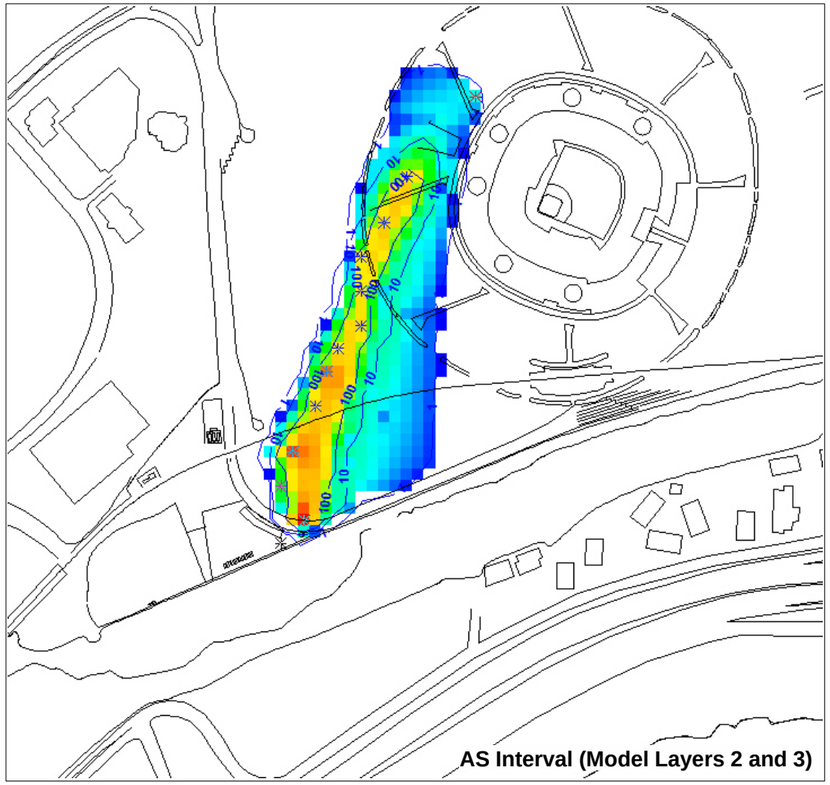
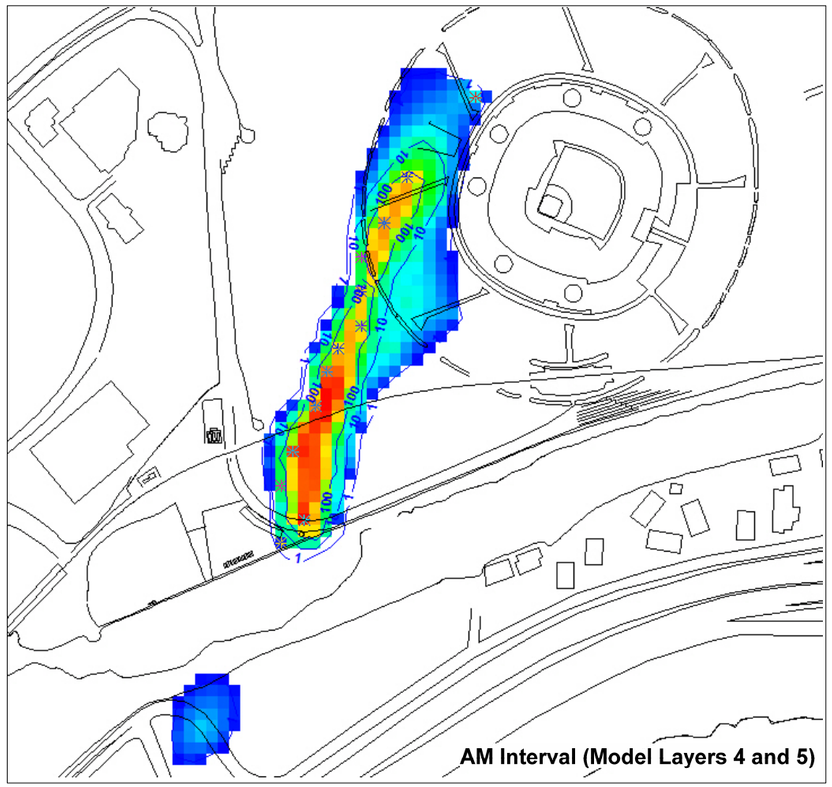
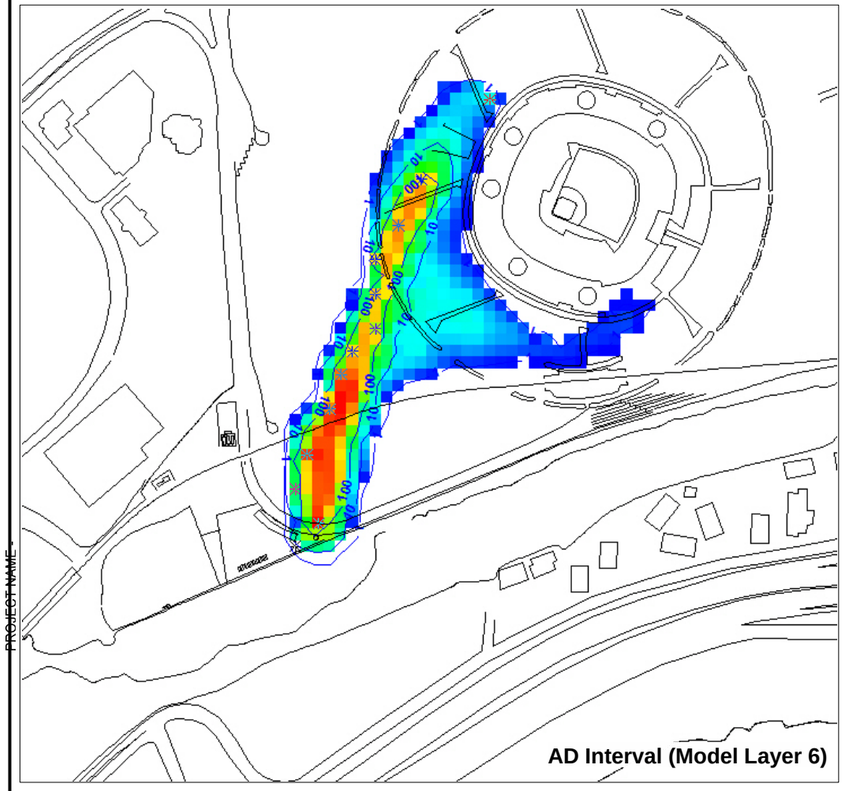
Table 1. Recovery Well System Extraction Rates Assigned for Future Predictions
Memorandum re: Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate
Mission Valley Terminal, San Diego, California

Well Groups	Recent Rate - to May 2011 (gpm) [1]	Projected Rate - May 2011 to November 2011 (gpm) [2]	Original Projected Rate - November 2011 to December 2013 (gpm) [3]	Final Projected Rate - November 2011 to December 2013 (gpm) [4]
Hydraulic Containment (RW-35 through RW-37)	99	92	92	92
Off-Terminal Dewatering (RW-5A, -7A, -48, and -56)	128	113	113	113
Off-Terminal Northwest Dewatering (RW-3A, RW-107, and RW-10	94	85	126	126
Distal Well Extraction (RW-8, RW-9, RW-49 through RW-51, RW-99 through RW-101, RW-109 through RW-114)	45	54	165	433
Total Extraction (gpm) [5]:	**367**	**344**	**495**	**763**

Notes:
[1] Recent extraction rates refer to those in effect during model calibration; rates are based on Site operations information.
[2] Future projected extraction rates assumed at the time the model calibration was completed.
[3] Future projected extraction rates based on permitted total system discharge at time predictions were developed.
[4] Future projected extraction rates based on the currently proposed increase in the total system discharge permit.
[5] Both future projected extraction rate scenarios are based on an assumed duty cycle of approximately 90 percent.
gpm = gallons per minute







Legend

>900 ug/L

Surrogate Concentration Color Flood Scale

1 ug/L

10 — Surrogate Concentration Contour, micrograms per liter (ug/L)

Recovery Well (RW)

Notes:

1. Initial surrogate concentrations are based on the observed TBA and MTBE concentrations in May 2010 (as presented in the 2Q2010 Quarterly Report).

2. The surrogate plume core concentrations were assigned values greater than the observed concentrations in recovery wells (located within the plume core) to account for the effects of wellhead dilution.

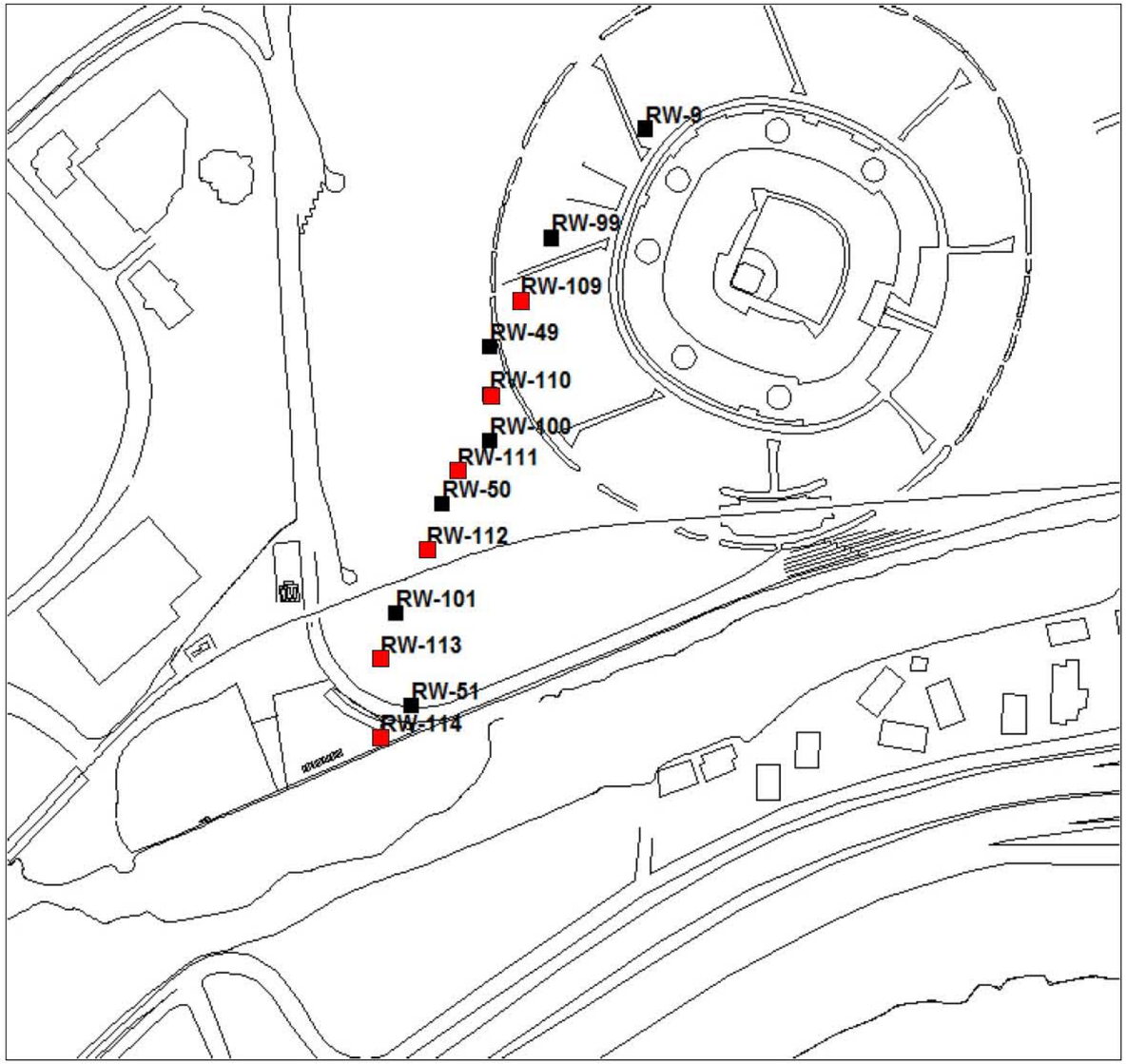
PROJECT NAME -

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
GROUNDWATER MODELING IN SUPPORT OF
SYSTEM DISCHARGE PERMIT INCREASE

SURROGATE PLUME
INITIAL CONCENTRATIONS

ARCADIS

FIGURE
1



Legend

RW-99
Existing Distal Recovery Well

RW-114
New (Proposed) Distal Recovery Well

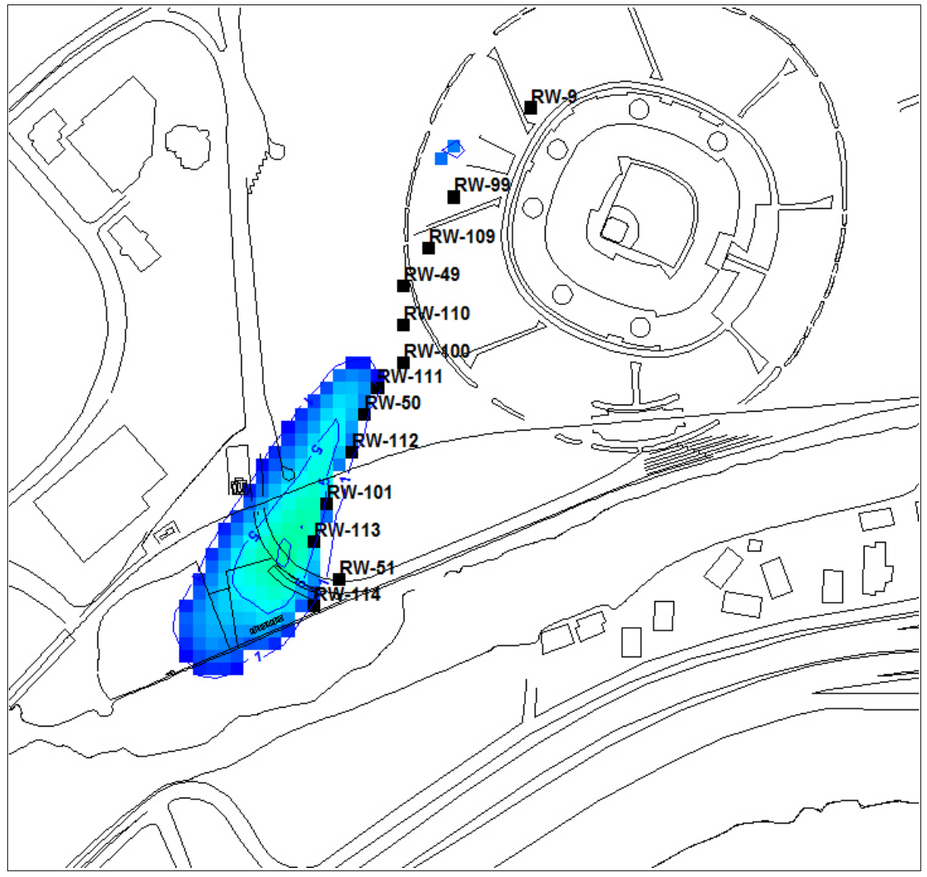
PROJECT NAME

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
GROUNDWATER MODELING IN SUPPORT OF
SYSTEM DISCHARGE PERMIT INCREASE

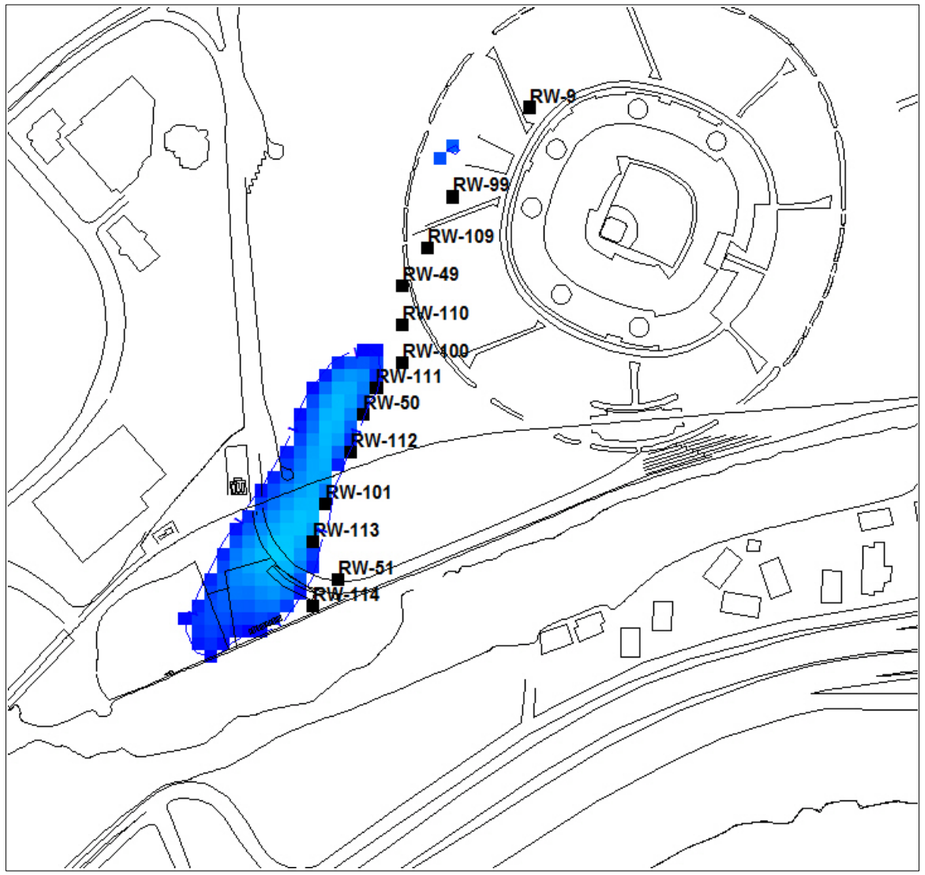
DISTAL RECOVERY WELLS

ARCADIS

FIGURE
2



January 2013 (14 Months After System Expansion)
Surrogate Concentrations <12 ug/L



June 2013 (19 Months After System Expansion)
Surrogate Concentrations < 4.2 ug/L

Legend

>900 ug/L

Surrogate Concentration Color Flood Scale

1 ug/L

5 Surrogate Concentration Contour, micrograms per liter (ug/L)

RW-99 Recovery Well (RW)

PROJECT NAME

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
GROUNDWATER MODELING IN SUPPORT OF
SYSTEM DISCHARGE PERMIT INCREASE

PREDICTED RESULTS - TIME AT WHICH CLEANUP GOALS ARE ATTAINED

ARCADIS

FIGURE
3

THE CITY OF SAN DIEGO

November 30, 2011

Via Email to dgibson@waterboards.ca.gov and
Hand Delivery

Mr. Grant Destache,
Chairperson

Mr. Dave Gibson
Executive Officer,

San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr.'s Destache and Gibson,

Subject: Request for Hearing on Matters Subject to Regulatory Oversight
Kinder Morgan Energy Partners, Mission Valley Terminal;
SL607392800:smcclain and CRU: 240988:bneil; WDID No: 9 000000506

As you know, the City of San Diego ("City") has taken an appeal to the State Water Resources Control Board ("SWRCB") on Decision R9-2011-0052 which set Total Dissolved Solids interim effluent limits for discharges to Murphy Canyon Creek. That appeal discusses the related and ripening issue of whether an Executive Officer can unilaterally permit the discharge of ever increasing amounts of water into the City's storm water discharge system, for which the City is a co-permittee, as a result of the treatment technology a discharger selected to remediate its historic release of petroleum products from the Mission Valley Terminal. The City recently presented a compromise proposal to allow for increased flows by way of letter to Mr. Gibson. Last week the City was copied on Kinder Morgan's response to the City's suggestions, a response which included legal briefs and technical support strongly rejecting the City's suggested approach. It is obvious from a comparison of the points raised by the City and the responses received from Kinder Morgan, its counsel at Downey Brand, and Arcadis, the consulting firm acting on their behalf, that there are significant variances in both fact and conclusion presented to the Water Board on these issues.

It is not appropriate to allow the record to stand so burdened with contradictory assertions. Some clarity needs to be applied to the charges and counter charges that are being made. The City is not merely a simple "land owner" in this dispute, but the representative of its many residents, who have direct financial and environmental interest in the discharger's activities. In light of the disparity between the factual, technical and legal assertions being made by Kinder Morgan and its representatives, the City believes it has both the legal right and obligation to request that a hearing be held before the Water Board so that these matters can be settled and resolved with finality, and the tedious and frustrating process of innuendo and half-truths, which have often clouded this significant cleanup effort, can be ended.

The City is keenly aware that the Water Board is in the last stages of a significant hearing concerning matters related to a cleanup of the sediments of the San Diego Bay, and that the matter has come to encompass a very large amount of the Water Board's resources over time. The hearing that is required as a result of the present disagreement between the City and Kinder Morgan would not be anything similar in terms of the investment of time and resources. The Water Board would not have to field a team to make scientific proposals for challenge by multiple stakeholders. In this instance, the Water Board would merely provide a forum for the interested parties to present their arguments and differing views, and then make administrative findings that can be used to guide the remaining years of remedial activity expected as a result of the Mission Valley Terminal release. If organized to focus on the areas of disagreement, the hearing could be concluded in one day.

The City understood the comments from Mr. Gibson at the hearing preceding R9-2011-0052 to mean that he intends to issue a decision on Kinder Morgan's flow increase request, but that he wished to first confer with the City. Mr. Gibson did have a preliminary meeting with City representatives on October 4, 2011; however, a follow up meeting was cancelled by Water Board staff in lieu of submission of written comments which, as stated above, are in conflict. As a precursor to a hearing, and toward possible settlement of contested issues and/or the delineation of those issues which cannot be settled, the City is still willing to meet with Mr. Gibson and Kinder Morgan. If after such a meeting the parties still had areas of disagreement, the City would continue to contend that the Water Board should hear those issues and render its own decision.

The City has often voiced the belief that there has never been (and still is not) a clear and thoughtful review of the facts and science behind the role that re-injection could play both in helping the discharger meet its regulatory requirements and avoid wasting San Diego's water. With Kinder Morgan's recent response to the Water Board, the list of issues over which neither the facts nor their interpretation is agreed upon has grown. On issues including Kinder Morgan's assertion that the Water Board has no authority to require them to supply "replacement water" for that which they are using, to issues related to the linkage between the discharge of the treated water and impacts on both the creek and adjacent developed property, there is a disconnect between the facts and that which is presented in writing. These are but several of the issues that now seem

appropriately poised for a thoughtful reexamination in a fair and deliberate hearing. This may be the only forum in which the stakeholders can have adequate opportunities to examine the assertions of each other for their factual basis and scientific strength.

The cleanup of the release from the Mission Valley Terminal is far from over, and will likely continue throughout the decade, even after the current CAO regarding the "off terminal" properties has run its course. No entity or institution benefits from avoiding a direct and thoughtful review of the present factual disputes. Whatever short term costs there are in such a hearing, they will be far overmatched in long term implications for the region and its residents.

Please advise us when you are prepared to call the stakeholders together to outline a date and process for an administrative hearing on these critically important issues.

Sincerely,

Marsi A. Steirer
Deputy Director
Public Utilities Department

Kris McFadden
Deputy Director
Transportation & Storm Water Department

cc: (via email)
Julie Chan, RWQCB
John Anderson, RWQCB
Craig Carlisle, RWQCB
Sean McClain, RWQCB
Dr. Paul Johnson
Dr. Margaret Eggers
Laura Drabandt, Esq., RWQCB
Scott Martin, Kinder Morgan
Rick Ahlers, Arcadis
Roger S. Bailey, City of San Diego
Alex Ruiz, City of San Diego
Almis Udrys, City of San Diego
Greg Cross, City of San Diego
Dr. Richard Jackson, Geofirma
Rob Sengebush, INTERA
Richard Opper, Counsel for City of San Diego
Fritz Ortlieb, Deputy City Attorney
Grace Lowenberg, Deputy City Attorney

Attachment B1d, EO Report
Kinder Morgan, Mission Valley Terminal

KINDER MORGAN
ENERGY PARTNERS, L.P.

December 7, 2011

Mr. David Gibson
Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to City of San Diego Request for Hearing on Matters Subject to Regulatory Oversight, SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. ("Kinder Morgan"), Mission Valley Terminal Remediation Dewatering Project, San Diego, California (TSMC:40 0054)

Dear Mr. Gibson:

We have reviewed the letter dated November 30, 2011, from Marsi Steirer and Kris McFadden of the City of San Diego, which requests a hearing in connection with the Mission Valley Terminal Remediation Dewatering Project (the "City Letter"). I am writing to express our concerns over any further unjustified delay in this important remediation project.

The decision before you is Kinder Morgan's August 2010 request for amendment of its enrollment under NPDES Permit No. CAG919002 ("General Permit"), to increase the rate of groundwater extraction in support of groundwater remediation. Given the looming December 2013 deadline under the Cleanup and Abatement Order for the project, Kinder Morgan has proceeded in good faith to construct the necessary facilities to implement the increased rate of extraction. Delays in this approval continue to jeopardize Kinder Morgan's ability to comply with the December 2013 deadline in the Cleanup and Abatement Order, and to jeopardize timely cleanup.

The City Letter seeks to derail the procedure you established for concluding your consideration of Kinder Morgan's request, and seeks to assume control of Regional Board proceedings for the City's own purposes. Like the City's earlier submission, the City Letter provides no additional useful information demonstrating negative impacts of the requested increase. It disregards the Board's endorsement of your decision to act on the request for amendment in your capacity as Executive Officer. And it disregards the opportunities for input you provided the City and Kinder Morgan in your efforts to schedule a meeting of all parties, and your subsequent decision to use detailed written submissions for such input.

As you requested in your letter of October 21, 2011, Kinder Morgan provided additional, detailed information to assist your decision. In contrast, the City, having failed to respond to your request

with useful information, and fully *sixteen months* after Kinder Morgan's application was filed,[1] now asks you to delay the remediation project and expend more valuable and limited Regional Board resources in a hearing designed to air "disagreements between the City and Kinder Morgan." Having attempted to confuse a relatively simple decision, the City now complains that "the list of issues over which neither the facts nor their interpretation is agreed upon has grown." This includes the obscure and groundless new legal claims raised for the first time by the City in July, including an assertion that the Regional Board should force Kinder Morgan to pay the City unspecified (but undoubtedly large) sums of money.

The Regional Board has already entertained numerous City submissions on Kinder Morgan's request for amendment of enrollment, for over more than a year. No hearing is required for you to act on our application. We ask that you bring this decision to an immediate conclusion.[2]

The only factual issue mentioned in the City Letter is one the City has raised repeatedly over several years, regarding the potential for re-injection of extracted groundwater.[3] This issue has already been reviewed many times by the Regional Board. For example, the letter dated July 19, 2009 from Mr. Robertus to Marsi Steirer noted,

> "Specifically, a thorough and exhaustive evaluation of the re-injection of treated groundwater has been done by Board staff. To continue re-evaluation with the same set of data would seem pointless."

In any event, the question of re-injection is tangential to your current decision. The only aspect of re-injection relevant to the current Regional Board decision is whether alternatives to disposal of the increased flows are addressed in Kinder Morgan's application for amendment to enrollment. We are all aware that re-injection was addressed in the application as well as numerous other times, as stated above. Certainly, this requires no new hearing.

The City's own consultants, Richard Jackson and Rob Sengebush, have already acknowledged the importance of the requested increase in groundwater extraction, stating the following in an April 1, 2011 report the City submitted to the Regional Board:

> "Groundwater extraction wells are progressively removing dissolved gasoline components from the MVA and are likely to achieve cleanup by December 2013, provided they implement their

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[1] Letter dated August 24, 2010 from Marcelo Garbiero, Arcadis, to Whitney Gorham, Regional Board, "Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002 NPDES Permit No. CAG919002."

[2] *See, e.g.*, letter dated September 28, 2010, from Marsi Steirer to Brian Kelley regarding Kinder Morgan's request to increase daily average discharge rate; letter dated April 28, 2011 from Marsi Steirer to Sean McClain regarding Mission Valley Terminal remediation; letter dated July 26, 2011 from Marsi Steirer to Ben Neill regarding Tentative Order No. R9-2011-0052 to provide a Time Schedule Order; letter dated July 27, 2011 from Kris McFadden to Ben Neill regarding Tentative Order No. R9-2011-0052 to provide a Time Schedule Order; letter dated November 3, 2011 regarding Kinder Morgan Energy Partners proposed flow increase for its Mission Valley Terminal Remediation Dewatering Discharge.

[3] *See, e.g.*, the City's Petition for Review filed with the State Water Resources Control Board ("State Board") on October 9, 2009 over claimed inaction by the Regional Board in "failing to require Kinder Morgan to re-inject treated groundwater back into the aquifer." This petition was rejected by the State Board on October 1, 2009.

plans to increase groundwater extraction, after which time these wells will become available for the City's use."[4]

"It appears from this analysis that the planned increase in groundwater extraction from the TBA plume will allow KMEP to meet the December 2013 deadline for cleanup."[5]

Indeed, the City's efforts appear designed to interfere with Kinder Morgan's ability to meet its Cleanup and Abatement Order deadline for groundwater remediation, in order to further the City's interests in its separate court action against Kinder Morgan. In the litigation, the City pursues damages for over $300 million. Snarling the remediation in endless complication and delay appears designed to bolster the City's claim in court that Kinder Morgan's cleanup is inadequate. The Regional Board should not misdirect its valuable, limited resources by allowing itself to be drawn into the City's separate, high-stakes litigation against Kinder Morgan.

The information needed for the Regional Board's pending decision has been adequately addressed in existing correspondence, and a hearing would serve no purpose other than delay. We urge you to promptly act on the request for amendment to the enrollment under the General Permit.

Thank you for your attention and courtesy in the careful review of our application. Please address any questions in this matter to me at (303) 914-4634, at the address below, or by email at Nancy_VanBurgel@kindermorgan.com.

Sincerely,

Nancy Van Burgel
Assistant General Counsel

cc: Grant Destache, Chair, RWQCB
Ben Neill, RWQCB
Julie Chan, RWQCB
Scott Martin, KMEP
Rick Ahlers, ARCADIS
Marcelo Garbiero, ARCADIS
Steven Goldberg, Downey Brand LLP
Katharine Wagner, Downey Brand LLP
Grace Lowenberg, City of San Diego

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[4] *Remediation of the Mission Valley Aquifer,* Geofirma Engineering Ltd. & Intera Inc. at p. iii (April 1, 2011). This report was submitted to the Regional Board as an enclosure to the letter dated April 28, 2011 from Marsi Steirer to Sean McClain.

[5] *Id.* at p. 87. Mr. Jackson made similar statements in his September 23, 2011 letter to Grace Lowenberg, enclosed with a letter dated November 10, 2011 from Marsi Stierer letter to David Gibson. *Status Report: Quarterly Report on Groundwater Remediation, Mission Valley Terminal, 2Q 2011,* Geofirma Engineering Ltd & Intera Inc., at 6, 8.

Attachment B5a

September 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
Del Mar City	City Of Del Mar CS	1	975	0	975	0	100	1.8	29	0
Eastern Municipal Water District	Temecula Valley RCS	1	2000	2000	0	100	0	27	557	0
La Mesa City	City Of La Mesa CS	1	200	200	0	100	0	0	155	0
Oceanside PWD	La Salina WWTP, Oceanside CS	1	225	200	0	88	0	35.6	439.7	0
San Diego City	San Diego City CS	2	2624670	931550	2624670	35	100	145	3002	2000
Santa Margarita Water Dist	Santa Margarita Water District CS	1	1050	1050	1050	100	100	12	600	165
Category 2 SSO										
Eastern Municipal Water District	Temecula Valley RCS	1	200	0	0	0	0	27	557	0
La Mesa City	City Of La Mesa CS	1	25	0	0	0	0	27	557	0
Laguna Beach City	City Of Laguna Beach CS	1	150	0	0	0	0	4.5	95	0
Oceanside PWD	La Salina WWTP, Oceanside Otfl CS	1	245	200	0	81	0	35.6	439.7	0
Padre Dam Municipal Water District	Padre Dam CS	2	105	105	0	100	0	5	165	0
Ramona MWD	Santa Maria CS	1	20	0	0	0	0	4	45	23
San Diego City	San Diego City CS	1	20	20	0	100	0	145	3002	2000
	TOTALS	**15**	**2629885**	**935325**	**2626695**			**469.5**	**9643.4**	**4188**

CS = Collection System

Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface wat
or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer system.

Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system

Attachment B5b

October 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
La Mesa City	City Of La Mesa CS	1	750	200	0	26	0	0	155	0
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	12000	0	12000	0	100	48.4	104	80
San Clemente City	City Of San Clemente CS	1	2350	1000	0	42	0	4	180	0
San Diego City	San Diego City CS	2	36000	20000	0	55	0	145	3002	2000
Santa Margarita Water Dist	Santa Margarita Water District CS	1	6600	0	0	0	0	12	600	165
Category 2 SSO										
El Cajon City	City Of El Cajon CS	1	60	0	0	0	0	0	195	0
Escondido City	Harrf Disch To San Elijo CS	1	114	114	0	100	0	10.7	370	0
Leucadia Wastewater District	Leucadia Wastewater District CS	1	120	20	0	16	0	16.67	200	0
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	25	0	0	0	0	48.4	104	80
San Diego City	San Diego City CS	1	175	175	0	100	0	145	3002	2000
San Diego Cnty DPW	County Of San Diego CS	1	900	0	0	0	0	4	371	64
San Juan Capistrano City	City Of San Juan Capistrano CS	1	120	120	0	100	0	0.2	123	0
Santa Margarita Water Dist	Santa Margarita Water District CS	1	23	22	0	95	0	12	600	165
Vallecitos Water District	Meadowlark CS	1	258	258	0	100	0	7.6	247.8	0
	TOTALS	**15**	**59495**	**21909**	**12000**			**453.97**	**9253.8**	**4554**

CS = Collection System

Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface v
or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer system.

Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system

Attachment B5c

November 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
Coronado City	City of Coronado CS	2	205	150	55	73	26	6.6	39.3	1
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	11,700	3,900	7,800	33	66	48.4	104	80
San Diego City	San Diego City CS	1	655	110	0	16	0.00	145	3002	2000
Category 2 SSO										
Ca Dept of Parks & Rec Winterhaven	San Clemente State Beach CS	1	60	0	0	0	0	0	2.1	0.9
Laguna Beach City	City Of Laguna Beach CS	1	300	0	0	0	0	4.5	95	0
Poway City	City Of Poway CS	1	700	100	0	14	0	10	178	34
San Diego City	San Diego City CS	1	600	600	0	100	0	145	3002	2000
San Diego Cnty DPW	County Of San Diego CS	1	200	0	0	0	0	4	371	64
UC San Diego	University Of California, San Diego CS	1	75	75	0	100	0	2	25	3
	TOTALS	**10**	**14495**	**4935**	**7855**			**365.5**	**6818.4**	**4182.9**

CS = Collection System

Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface water, or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer system.

Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system

Attachment B5d

December 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
San Diego City	San Diego City CS (Wastewater Collection System)	2	5697	4997	700	87	12	145	3002	2000
Santa Margarita Water Dist	Santa Margarita Water District CS	1	2350	2350	2350	100	100	12	600	165
South Coast Water District	South Coast Water District CS	1	1200	0	0	0	0	3.2	138	0
Category 2 SSO										
Coronado City	City Of Coronado CS	2	35	35	0	100	0	6.6	39.3	1
Eastern Municipal Water District	Temecula Valley RCS	1	53	53	0	100	0	27	557	0
San Diego City	San Diego City CS	1	600	0	0	0	0	145	3002	2000
	TOTALS	**8**	**9935**	**7435**	**3050**			**338.8**	**7338.3**	**4166**
CS = Collection System										
Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface v										
or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer system.										
Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system										

Attachment B5e

September and October 2011 - Summary of Private Lateral Sewage Discharges in Region 9								
Reporting Agency	Collection System	Total Number of PLSD locations	Total Vol of PLSDs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Private Lateral
Category 1 PLSD								
Carlsbad MWD	Carlsbad MWD CS	1	50	50	1	100	2	NA.0
El Cajon City	City Of El Cajon CS	2	100	35	40	35	40	189
Laguna Beach City	City Of Laguna Beach CS	1	30	26	4	86	13	102
San Diego City	San Diego City CS	2	1305	1050	0	80	0	4049
Vallecitos Water District	Meadowlark CS	2	140	90	0	64	0	312
Category 2 PLSD								
Carlsbad MWD	Carlsbad MWD CS	3	15	10	0	66	0	0
Chula Vista City	City Of Chula Vista CS	3	90	40	0	44	0	0
El Cajon City	City Of El Cajon CS	1	650	650	0	100	0	189
Imperial Beach City	City Of Imperial Beach CS	1	1	0	0	0	0	103
Laguna Beach City	City Of Laguna Beach CS	1	15	0	0	0	0	102
Ramona MWD	Santa Maria CS	1	300	300	0	100	0	62
San Diego City	San Diego City CS	3	945	945	0	100	0	4049
	TOTAL	**21**	**3641**	**3196**	**45**			**9157**

PLSD = Private Lateral Sewage Discharge

Category 1 PLSD = All discharges of sewage from a private sewer lateral that exceed 1000 gallons, or result in a or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer s

Category 2 PLSD= All other discharges of sewage resulting from a failure of a private sewer lateral

Attachment B5f

November and December 2011 - Summary of Private Lateral Sewage Discharges in Region 9								
Reporting Agency	Collection System	Total Number of PLSD locations	Total Vol of PLSDs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Private Lateral
Category 1 PLSD								
Carlsbad MWD	Carlsbad MWD CS	1	30	30	30	100	100	0
Carlsbad MWD	Carlsbad MWD CS	3	45	20	0	44	0	0
San Diego City	San Diego City CS	2	207	100	0	48	0	4049
South Coast Water District	South Coast Water District CS	1	300	100	200	33	66	150
Category 2 PLSD								
Coronado City	City Of Coronado CS	1	3	3	0	100	0	50
Chula Vista City	City Of Chula Vista CS	3	90	40	0	44	0	0
El Cajon City	City Of El Cajon CS	1	15	15	0	100	0	189
Escondido City	Harrf Disch To San Elijo CS	1	50	50	0	100	0	83.2
Fallbrook Public Utility Dist	Fallbrook Plant 1, Oceanside of CS	1	10	0	0	0	0	18
La Mesa City	City Of La Mesa CS	1	15	0	0	0	0	73
Laguna Beach City	City Of Laguna Beach CS	1	20	19	0	95	0	102
Moulton Niguel Water District	Moulton Niguel Water District CS	1	100	100	0	100	0	500
Poway City	City Of Poway CS	2	60	50	0	83	0	68
San Clemente City	City Of San Clemente CS	1	9	4	0	44	0	0
San Diego City	San Diego City CS	1	30	30	0	100	0	4049
Solana Beach City	City Of Solana Beach CS	2	575	125	0	21	0	28
South Coast Water District	South Coast Water District CS	2	70	70	0	100	0	150
Vallecitos Water District	Meadowlark CS	1	5	5	0	100	0	312
	TOTAL	**26**	**1634**	**761**	**230**			**9821.2**

PLSD = Private Lateral Sewage Discharge

Category 1 PLSD = All discharges of sewage from a private sewer lateral that exceed 1000 gallons, or result in a d
or discharge to a storm drainpipe that was not fully captured abs returned to the sanitary sewer sy

Category 2 PLSD= All other discharges of sewage resulting from a failure of a private sewer lateral

Attachment B10

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011

Reporting Period	Certification Applications Received	Certifications Issued[1]	Enrollment In State Certifications[2]	Certifications Time Expired[3]	Certification Amendments[4]	Certification Withdrawals[5]	Certification Denials Issued[6]
October 2011	6	2	1	0	1	0	0
November 2011	12	2	0	1	1	1	1
December 2011	6	1	0	1	3	0	0
QUARTERLY TOTAL	**24**	**5**	**1**	**2**	**5**	**1**	**1**
YTD TOTALS	**122**	**53**	**27**	**16**	**22**	**17**	**2**

Reporting Period	Permanent Impacts[7] (Acres)	Temporary Impacts[7] (Acres)	Establishment Mitigation[8] (Acres)	Restoration Mitigation[9] (Acres)	Enhancement Mitigation[10] (Acres)	Preservation Mitigation[11] (Acres)
October 2011	0.21	0.54	0.07	0.57	1.14	0.00
November 2011	0.04	0.00	0.00	0.13	0.02	0.00
December 2011	4.44	0.00	1.00	0.50	8.62	0.00
QUARTERLY TOTAL	**4.69**	**0.54**	**1.07**	**1.20**	**9.78**	**0.00**

1. Certifications can be low impact, conditional, or programmatic. Low impact certifications are issued to projects that have minimal potential to adversely impact water quality. Conditional certifications are issued to projects that have the potential to adversely impact water quality, but by complying with technical conditions, will have minimal impacts. Programmatic certifications are conditional certifications issued to projects with like, recurring, or long-term impacts, thereby requiring continuous oversight.
2. In cases where the State Water Resources Control Board has issued a programmatic certification (State Certification), the Regional Water Boards are responsible for reviewing projects in their area to confirm whether they qualify for enrollment in the programmatic certifications.
3. Time Expired refers to projects that may proceed due to the lack of an action by the San Diego Water Board within specified regulatory timelines.
4. Amendments are revisions to certifications that have been issued.
5. Withdrawn refers to projects that the applicant or San Diego Water Board have withdrawn due to procedural issues not corrected within one year.
6. Denials are issued when a project will adversely impact water quality and suitable mitigation measures are not proposed or possible.
7. Permanent impacts (P) result in a permanent fill or loss of wetland function and value. Temporary impacts (T) are expected to return to their original condition within one year.
8. Establishment is defined as the creation of vegetated or unvegetated waters of the United States and/or State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh).
9. Restoration is divided into two activities, re-establishment and rehabilitation. Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the United States and/or State previously existed (e.g., removal of fill material to restore a drainage). Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the United States and/or State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species).
10. Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the United States and/or State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species).
11. Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the United States and/or State (e.g., conservation easement).

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION[1]
10/03/2011	City of Murrieta	Line D and Line D-1 Flood Control Realignment	Amendment to allow for select long term maintenance activities.	Murrieta Creek Murrieta HSA (902.32)	No additional impacts.	No additional mitigation required.	11C-030 Amendment
10/10/2011	Sweetwater Authority	36-inch Raw Water Pipeline Replacement Project	The project proposes to repair a break in the 36-inch raw water pipeline below the Sweetwater Dam. The 122 year-old pipeline conveys water stored in the Sweetwater Reservoir to the water treatment plant.	Sweetwater River Telegraph HSA (909.11)	(P) 0.14-acre (400 linear feet) of wetlands. (T) 0.36-acre (630 linear feet) of wetlands.	On-site: Restoration of 0.36-acre of riparian. Off-site: Enhancement of 1.14-acres of wetlands.	11C-035 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
10/17/2011	San Elijo Lagoon Conservancy	San Elijo Lagoon Restoration	The project includes conducting up to 31 soil borings on the San Elijo Lagoon Ecological Reserve. The borings are part of a data collection effort that is underway to implement a wetland restoration program at San Elijo Lagoon.	San Elijo Lagoon San Elijo HSA (904.61)	(T) 3,100 square feet (0.10-acre) of waters of the U.S.	No significant impacts to water are anticipated therefore no mitigation is required.	11C-085 State Pre-certified Nationwide Permit #6
10/28/2011	County of San Diego	Woodside Avenue Drainage Improvement Project	The proposed project is the replacement of approximately 1,800-feet of an existing, partially underground storm drainage system parallel to Woodside Avenue with an upgraded underground drainage system and construction of two 14-foot by 5-foot box culverts that would transport water under State Route 67 for a distance of approximately 340-feet. Dewatering may be required if	Unnamed tributary to the San Diego River Lakeside HSA (907.12)	(P) 0.07 acre of wetlands (T) 0.08 acre of wetland.	Onsite: Establishment of 0.07-acre (35 linear feet) of freshwater marsh Offsite: Restoration and enhancement of 0.21-acre (75 linear feet) of Southern Willow Scrub	10C-114 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION[1]
			groundwater is encountered during construction.				
11/01/2011	City of Escondido	Benton Burn Site Remediation	The project would consist of consolidating waste and capping the surface in areas of flow and scour. The primary objectives of the project are to implement remedial action in order to meet the Minimum Standards for former landfill sites to comply with CCR Title 27 and to reduce the potential for human exposure and health risks to burn ash-containing waste.	Tributary to San Marcos Creek	Not Applicable.	Not Applicable.	11C-070 Denied Coverage with State Pre-certified Nationwide Permit #38
11/01/2011	Bernard L. Traux II	Murrieta 18 Project	Construction of a medical center in association with construction of Jackson Avenue Bridge and connection for through traffic to the City of Temecula	San Diego Bay Ramona HSA (905.41)	Not Applicable	Not Applicable	10C-098 Withdrawn
11/01/2011	Orange County Parks	Aliso Creek Outlet Maintenance Program	Amendment to a combination of previously permitted bi-annual major maintenance work on the Aliso creek outlet and biweekly minor grading to notch the sand berm that plugs the outlet.	Aliso Creek Laruna HSA (901.1)	No additional impacts.	No additional mitigation required.	05C-009 Amendment
11/3/2011	Escondido Union High School District	Citracado High School	The project proposes the development of a new career technology high school on a District owned 36.35 acre site. The project is limited to the construction of the high school within a 23 acre footprint within installation of landscaping elsewhere on the project site.	Escondido Creek Escondido HSA (904.62)	(P) 0.01 acre (110 linear feet) of streambed	On-Site Restoration of 0.1 acre (220 linear feet) of riparian Enhancement of 0.02 acre (100 linear feet) of streambed	11C-005 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION[1]
11/14/2011	Trabuco Canyon WD	Rose Canyon Transmission Line Creek Crossing	The applicant proposes to repair an existing 8-inch diameter water pipeline that was damaged by severe winter storms and associated flooding. The project will entail the removal and replacement of a 20 ft. linear section of the pipeline, which will be cut with both sides of the existing bank grade than replaced with a new section of 8-inch diameter, ductile iron pipeline.	Trabuco Creek Upper Trabuco HSA (901.22)	(T) 0.001 acre (20 linear feet) of streambed	No significant impacts to water are anticipated therefore no mitigation is required.	11C-081 Time Expired
11/21/2011	Riverside County Transportation Department	Interstate 15 and Clinton Keith Road Interchange Improvement	The proposed project is located in the City of Murrieta and consists of the redevelopment of the Interstate 15 and Clinton Keith Road Interchange to improve traffic flow and safety.	Unnamed drainage channel to Murrieta Creek Widomar HSA (902.31)	(P) 0.03 acre (131 linear feet) of streambed	Off-site: Establishment of 0.03 acre *or* restoration of 0.25 acre (either no less than 131 linear feet) of waters of the U.S.	10C-103 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
12/6/2011	Orange County Parks	Aliso Creek Bike Trail Repair Project	The proposed project consists of reopening the County bike trail across Aliso Creek by replacing the failed structure with a pre-fabricated bridge on a new substructure. Project proposes to install a simple pre-fabricated bike and pedestrian span bridge over Aliso Creek, and install approximately 78 cubic yards of rip-rap to stabilize the banks of the creek from erosion. In addition, existing debris (i.e. concrete, rip-rap, culverts) will be removed from the creek. The new span bridge will replace a low-water crossing bridge that was recently washed out from recent above average rainfall.	Aliso Creek Aliso HSA (901.13)	(P) 0.004-acre (20 linear feet) of streambed.	No significant impacts to water are anticipated therefore no mitigation is required.	11C-079 Time Expired

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION[1]
12/12/2011	County of Riverside Office of Education	Murrieta Regional Learning Center	The proposed project consists of the construction of a regional educational facility comprised of classrooms, hard courts and associated facilities and improvements.	Unnamed tributary to Murrieta Creek Murrieta HSA (902.32)	(P) 0.13 acre (1,054 linear feet) of streambed.	Creation of 1.0-acre (906 linear feet) of mixed riparian scrub and streambed Restoration of 0.5-acre (288 linear feet) of riparian	10C-110 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
12/20/2011	California Department of Transportation (CALTRANS)	Transfer of Responsibility for 125 South Toll Road	Amendment to transfer certification responsibilities from South Bay Expressway to Sandag for an eight-lane highway from Otay Mesa Road (Route 905) to Spring Valley Road (Route 54)	Sweetwater and Otay Rivers, San Miguel and Spring Valley Creek and unnamed tributary of San Miguel Creek. Sweetwater HU 909	No additional impacts.	No additional mitigation required.	99C-133 Amendment
12/22/2011	City of San Diego	Sorrento Creek Channel Maintenance Project	The amendment is to change the seasonal work restrictions to dredge up to 3,000 cubic yards out of Sorrento Creek. The dredging will occur from the confluence of Sorrento Creek and Los Penasquitos Creek, proceeding in a northwest direction 800 linear feet, with the end point approximately in line with Estuary Way.	Sorrento Creek, Carroll Canyon Creek, Los Penasquitos Creek Miramar Reservoir (906.1)	No additional impacts.	No additional mitigation required.	06C-062 Amendment
12/29/2011	City of San Diego	Tijuana River Valley Maintenance Project	An amendment to allow for annual excavation of approximately 10,000-30,000 cubic yards of sediment and trash debris to restore storm water conveyance capacities of the channels, and reduce the chance of flooding to the surrounding properties.	Tijuana River San Ysidro HSA (911.11)	(P) 0.39-acre of vegetated and 3.92-acres of unvegetated waters of the U.S. and/or State.	Enhancement of 4.31-acres of wetland Enhancement of 4.31-acres of streambed.	09C-077 Amendment

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

Significant NPDES Permits, WDRs, and Actions of the San Diego Water Board

February 8, 2012

APPENDED TO EXECUTIVE OFFICER'S REPORT