CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2005-0061 FILE NO. 07S0177

SITE CLEANUP REQUIREMENTS FOR:

MOUNTAIN CASCADE INC.;
EAST BAY MUNICIPAL UTILITY DISTRICT;
KINDER MORGAN ENERGY PARTNERS, LLP; and,
CONTRA COSTA COUNTY.

for the property located along:
SOUTH BROADWAY - between Rudgear Road and Newell Avenue
WALNUT CREEK, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) finds that:

1) **Purpose of Order**
The purpose of this Order is to establish Site Cleanup Requirements (SCRs) for the investigation and remediation of contamination resulting from a subsurface petroleum fuel pipeline failure and the subsequent discharge of petroleum product, primarily as gasoline.

2) **Location of Discharge**
The petroleum fuel pipeline failure and discharge occurred near the fuel pipeline mile post 8.48 along South Broadway between Newell Street and Rudgear Road in the city of Walnut Creek. (Figure 1) The land where both the fuel pipeline and water pipeline are located is owned by Contra Costa County.

3) **Nature of Pipeline Failure**
The following information was presented in the Pipeline Failure Investigation Report performed by the California Office of the State Fire Marshal (OSFM) released on July 6, 2005, as part of the public notification of the pipeline failure:

At 1322 hours on 9 November 2004, excavation equipment operated by Mountain Cascade, Inc (MCI), struck Kinder Morgan's LS-16 pipeline, a 51.4 mile long intrastate products pipeline that travels from Concord to San Jose. The excavator was working on a large-diameter water supply expansion project in Walnut Creek, CA for the East Bay Municipal Utility District (EBMUD).

Upon rupture of the Kinder Morgan pipeline, gasoline under high pressure was immediately released into the surrounding area. Kinder Morgan control center operators in Concord immediately noticed the large pressure drop and started to shut the pipeline down. Several seconds after the line was hit gasoline streaming out of the line was ignited by welders employed by Matamoros Pipelines, Inc., who were

working on the new water supply pipeline. The ensuing explosion and fire resulted in the deaths of five workers and significant injury to four others. One nearby two-story structure was burned and other property was damaged.

4) **Nature of Discharge**
Based on the OSFM's Pipeline Failure Investigation Report, at the time of rupture premium gasoline was being shipped from Kinder Morgan's Concord Pump Station to its San Jose Terminal within the LS-16, 10-inch high pressure fuel pipeline. The rupture caused by the rock tooth on the excavator's bucket was approximately one-inch in diameter. The pipeline pressure at the time and location of the rupture was reported as 973 psi. A total of approximately 24,000 gallons were discharged and approximately 2,500 gallons were recovered. No gasoline reportedly entered any surface water body. The fire likely consumed a significant portion of the discharge; however, an equally significant volume likely absorbed into the ground and was not available for combustion.

5) **Named Dischargers**
The Water Board is aware of pending civil litigation and other proceedings related to this matter. This Order, including the findings, is limited in its application to this proceeding under Water Code Section 13304, including any subsequent petition or lawsuit challenging this Order and any judicial or administrative action to enforce this Order. This Order is not intended to apply to any other judicial proceeding or to any administrative proceeding conducted by any other administrative agency relating to the November 9, 2004, fuel discharge. The Water Board takes no position on the proportional shares of fuel discharge liability, if any, among the parties named as a Discharger.

This Order names the following Dischargers:

a) **Mountain Cascade Inc. (MCI)** is named as a Discharger because MCI was the principal contractor for EBMUD for the installation of the new water pipeline. A heavy equipment operator of the excavator under the management of MCI ruptured the fuel pipeline.

b) **East Bay Municipal Utility District (EBMUD)** was in the process of installing a new 69-inch diameter water delivery pipeline in Contra Costa County's public easement parallel to the Kinder Morgan fuel pipeline. EBMUD is named as a Discharger because EBMUD's contractor, MCI, ruptured the adjacent Kinder Morgan fuel pipeline during the installation of the new water pipeline. Additionally, EBMUD is named as a Discharger because EBMUD holds two easements within the pipeline corridor where its contractor ruptured the pipeline. One of the two easements held by EBMUD is a short-term easement specifically for the installation of the new water pipeline, and the other is a long-term easement for ongoing maintenance of an existing water pipeline.

c) **Kinder Morgan Energy Partners, LLP. (Kinder Morgan)** operates fuel delivery pipelines throughout the western United States. Kinder Morgan is named

as a Discharger because it owns and operates the fuel pipeline that was the source of the pipeline discharge of November 9, 2004.

d) **Contra Costa County** is named as a Discharger because it owns the property which the Kinder Morgan pipeline passes. That property is located along South Broadway in the city of Walnut Creek.

6) **Future Modification of Order**
If additional information indicating that other parties caused or permitted any waste to be discharged or deposited where it entered or could have entered waters of the State, the Water Board may consider modifying the Dischargers named and/or the tasks identified in this Order. Furthermore, if future information demonstrates that a Discharger is responsible for contaminants not identified in this Order, the Executive Officer or the Water Board may consider modifying the contaminants for which a Discharger is responsible.

7) **Preliminary Site Investigation**
Pursuant to a Water Code Section 13267 letter, MCI performed a preliminary site investigation on May 4, 2005. Five soil borings were performed and free-phase petroleum hydrocarbon was recovered in one of five borings (SB-4). Petroleum product components were measured in soil samples significantly greater than the Water Board's Environmental Screening Levels (ESLs) for benzene, toluene, ethylbenzene, xylene, and naphthalene.

Analysis of the groundwater sample collected from boring SB-4 detected 420,000 micrograms per liter (ug/l) of total petroleum hydrocarbons as gasoline (TPH-g), 2,500 ug/l of benzene, 55,000 ug/l of toluene, 11,000 ug/l ethylbenzene, 69,000 ug/l xylenes, and 5,900 ug/l naphthalene. MTBE was not reported in concentrations above the laboratory detection limit.

Analysis of selected soil samples collected from borings SB-1 through SB-5 detected TPH-g at a maximum concentration of 5,700 milligrams per kilogram (mg/kg) in SB-4 at a depth of 19.5 to 20.0 feet bgs. This same soil sample also had the maximum concentration of benzene, toluene, ethyl-benzene, and xylenes (BTEX) and naphthalene. MTBE was not detected in any soil samples. Analysis of soil samples collected from SB-1, SB-2, SB-3, and SB-5 detected TPH-g, BTEX, and VOCs at concentrations below or near the laboratory detection limits.

8) **Hydrogeological Characterization**
As part of the preliminary site investigation, five geological borings utilizing direct-push equipment were performed at the site. Based on the geological logs collected from these borings, the underlying stratigraphy, from ground surface to approximately 20 feet below ground surface (bgs), is composed primarily of clayey sand with 1-inch to 2-feet thick lenses of angular sandstone gravel. Refusal occurred in each boring between 18 and 20 feet bgs and was interpreted as encountering bedrock.

Groundwater was encountered in only one of the borings (SB-4) at a depth of 18 feet

bgs, which corresponded with the depth of the gravel lens in this boring. A dark colored, separate phase petroleum product was observed within this groundwater sample. At this time, the site specific groundwater gradient is unknown but the regional groundwater gradient is to the north.

9) **Surface Water Characterization**
The nearest surface water body is San Ramon Creek, which flows northerly into Walnut Creek and continues to Suisan Bay. The OSFM Pipeline Failure Report stated that no surface water bodies were impacted. However, analytical water samples of San Ramon Creek have not been collected at this time to assess potential contamination.

10) **Basin Plan**
The Water Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Water Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan designates beneficial uses and defines water quality objectives for waters of the State, including surface water and groundwater.

11) **Beneficial Uses**
As designated the Basin Plan, the existing and potential beneficial uses of the adjacent and contiguous surface water bodies (e.g., Walnut Creek) in the vicinity of the discharge include :

- Cold Freshwater Habitat;
- Freshwater Replenishment;
- Fish Migration;
- Contact Water Recreation;
- Non-contact water Recreation;
- Fish spawning;
- Warm Freshwater Habitat;
- Wildlife Habitat; and,
- Preservation of Rare and Endangered species.

Designated existing and potential beneficial uses of the groundwater (e.g., Ygnacio Valley Basin) in the vicinity of the discharge include:

- Municipal and domestic supply;
- Industrial process;
- Industrial service supply;
- Agricultural supply; and,
- Freshwater replenishment.

12) **Water Board Resolutions**
a) **State Water Resources Control Board Resolution No. 68-16**
Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment

of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedence of applicable water quality objectives. This Order and its requirements are consistent with Resolution No. 68-16.

b) **State Water Resources Control Board Resolution No. 88-63**
Resolution No. 88-63, "Sources of Drinking Water Policy" defines all groundwater as a potential source of drinking water with limited exceptions for groundwater in areas containing high total dissolved solids (greater than 3,000 mg/L), groundwater in areas of low yield (less than 200 gallons per day), or groundwater in areas with high levels of background contamination. Groundwater underlying and adjacent to the site may qualify as a potential source of drinking water, although there is no current use of the site's groundwater, nor any anticipated plans for its use.

c) **State Water Resources Control Board Resolution No. 92-49**
Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under California Water Code Section 13304," applies to this discharge. This Order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

13) **Basis for California Water Code Section 13304 Order**
The Water Board finds that the Dischargers have caused or permitted waste to be discharged or deposited where it has or probably will be discharged into waters of the State and creates or threatens to create a condition of contamination or nuisance. Therefore, this Order contains tasks for site characterization, proposal of cleanup, and the implementation of corrective actions for the remediation and/or mitigation of threats to surface waters and groundwater.

14) **Preliminary Cleanup Goals**
The Dischargers will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft remedial action plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals shall be used for these purposes:

a) **Groundwater:** Applicable water quality objectives (e.g., lower of primary (toxicity) and secondary (taste and odor) maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, equivalent drinking water levels based on toxicity and taste and odor concerns. For purposes of this subsection, the Dischargers shall consider groundwater a drinking water source.

b) **Soil:** Applicable screening levels as compiled in the Water Board's Environmental Screening Levels (ESLs) document or its equivalent. Soil ESLs are intended to address a full range of exposure pathways, including direct

exposure, indoor air impacts, nuisance, and leaching to groundwater.

15) Cost Recovery

Pursuant to California Water Code Section 13304, the Dischargers are hereby notified that the Water Board is entitled to, and may seek reimbursement for all reasonable costs actually incurred by the Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

16) California Environmental Quality Act (CEQA)

This action is an order to enforce the laws and regulations administered by the Water Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act pursuant to Section 15321 of the Resources Agency Guidelines.

17) Public Notification

The Water Board has notified the Dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

18) Public Hearing

The Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Dischargers (or their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

PROHIBITIONS

1) The discharge of wastes or hazardous substances in a manner that will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2) Further significant migration of wastes or hazardous substances through surface or subsurface transport to waters of the State is prohibited.

3) As required by State Water Resources Control Board General Permit No. CAS000001 for the Discharge of Storm Water Associated with Industrial Activities, the discharge of contaminant-impacted stormwater from the site, including sediment, is prohibited.

4) Activities associated with the subsurface investigation and cleanup that will cause significant adverse migration of wastes or hazardous substances are prohibited.

5) The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

TASKS

1) **PUBLIC PARTICIPATION PLAN**
COMPLIANCE DATE: January 30, 2006

The Dischargers shall submit a proposed Public Participation Plan acceptable to the Executive Officer that addresses community relations issues. The plan should include an updated mailing list and the scope of work for communications with the local community. The plan should include a schedule of community outreach activities including the distribution of informational mailers.

2) **SITE CHARACTERIZATION WORKPLAN**
COMPLIANCE DATE: January 30, 2006

The Dischargers shall submit a Site Characterization Workplan acceptable to the Executive Officer, to investigate the lateral and vertical extent of soil and groundwater contamination observed in the initial site investigation, dated June 3, 2005. While the vertical extent of gasoline contamination will tend to be limited by the presence of groundwater, certain contaminant constituents being soluble in water, could migrate below the ground water table. Therefore, the proposal should consist of a lateral and vertical site characterization of all likely contaminants present (BTEX, TPHg, TPHd, MTBE, naphthalene, etc.).

3) **IMPLEMENTATION OF SITE CHARACTERIZATION WORKPLAN**
COMPLIANCE DATE: 45 Days After Site Characterization Workplan Approval

The Dischargers shall implement the Site Characterization Work Plan within 45 days of approval by the Executive Officer.

4) **SITE CHARACTERIZATION REPORT**
COMPLIANCE DATE: 60 Days After Completion of Task 3

The Dischargers shall submit a report, acceptable to the Executive Officer, that provides the results of investigations proposed in the Site Characterization Workplan prepared in accordance with Task 3. The report shall include boring logs, laboratory analyses, updated cross-sections, isoconcentration maps using laboratory analysis data, a site conceptual model, and conclusions and recommendations for further site characterization work, if necessary.

5) **INTERIM CORRECTIVE ACTION WORKPLAN (ICAP)**
COMPLIANCE DATE: January 30, 2006

The Dischargers shall submit an Interim Corrective Action Workplan that describes how contaminated soils will be handled and treated during any ongoing construction within the area potentially impacted by the discharge. Additionally, the ICAP shall address removal of source material during ongoing construction.

6) **IMPLEMENTATION OF THE INTERIM CORRECTIVE ACTION WORKPLAN**
COMPLIANCE DATE: 45 Days After ICAP Approval

The Dischargers shall implement the ICAP within 45 days of approval by the Executive Officer. Any additional investigative work can be completed concurrently, but shall not delay the construction and implementation of any remediation system.

7) **CORRECTIVE ACTION PLAN (CAP)**
COMPLIANCE DATE: July 30, 2006

The Dischargers shall submit a Corrective Action Workplan, acceptable to the Executive Officer, proposing cleanup goals, corrective actions to meet those goals, a time schedule to perform the proposed actions, and a long-term groundwater monitoring proposal. The cleanup goals shall be based on an assessment of the risks to human health and to the environment and shall be based on site specific data or based on the Board's February 2005, Environmental Screening Levels document. The Dischargers shall implement the Corrective Action Plan immediately upon written approval of that plan. The time-table to implement the proposal shall be an enforceable component of this Order.

8) **IMPLEMENTATION OF THE CORRECTIVE ACTION PLAN**
COMPLIANCE DATE: 45 Days After CAP Approval

The Dischargers shall implement the CAP within 45 days of approval by the Executive Officer.

9) **DELAYED COMPLIANCE**: If the Dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the Dischargers shall promptly notify the Executive Officer, and the Board or the Executive Officer may consider revisions of the compliance dates in this Order.

PROVISIONS

1) Operation and Maintenance (O&M): The Dischargers (as applicable) shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

2) Discharges: If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited, or probably will be discharged in or on any waters of the state, the Dischargers shall:
   - **a)** Immediately notify the Water Board by telephone at (510) 622-2300;
   - **b)** Report such discharge to the Office of Emergency Services at (800) 852-7550;
   - **c)** File a written report with the Water Board within five working days that shall contain information relative to the following:
     - **i)** The nature of waste or pollutant;
     - **ii)** The quantity involved and the duration of incident;

iii) The cause of the spill;
iv) The estimated size of the affected area;
v) The corrective measures that have been taken or planned;
vi) A time schedule for the corrective measures;
vii) The persons/agencies notified; and
viii) A copy of the OES notification report.

3) Stormwater: The Dischargers shall comply with the State's General Stormwater Permits for both industrial activities and construction activities (State Water Board Order Numbers 97-03-DWQ and 99-08-DWQ, respectively, and any updates or revisions of these Orders).

4) Contractor/Consultant Qualifications: All technical documents shall be signed by and stamped with the seal of a California registered professional geologist, a California certified engineering geologist or hydrogeologist, or a California registered civil engineer.

5) Lab Qualifications: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Water Board using approved USEPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Water Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g., temperature).

6) Electronic Reporting: The Water Board requests all reports be submitted both as an electronic copy and as a paper copy. Effective January 1, 2003, the Water Board implemented plans to image all incoming correspondence. Written correspondence received at the Water Board, including report cover letters will be imaged and stored in the same manner as outgoing correspondence. Imaging documents over ten pages or with oversize drawings or tables or color is currently not within the Water Board's capability. The Water Board therefore requests that dischargers submit each report as one paper copy and one electronic copy on one labeled CD or diskette. The paper copy will be used by the case manager and then stored as long as the document is actively used.

   The electronic copy of the report should be submitted as one PDF file. It is preferred that reports be converted from their original format (e.g., Microsoft Word) rather than scanned except for signature pages and perjury statements, which must be scanned and included. Each page in the PDF file should be rotated in the direction that facilitates reading on a computer. The electronic document will then be copied into the Water Board's electronic document management system, which will be the formal Water Board secured record for the site.

7) Document Distribution: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the Contra Costa County Health Department. The Executive Officer may modify this distribution list as needed.

8) Self-Monitoring Program: The Dischargers (as applicable) shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

9) Access to Site and Records: In accordance with California Water Code Section 13267, the Dischargers (as applicable) shall permit the Water Board or its authorized representative:

- **a)** Entry upon premises in which any contamination source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order;
- **b)** Entry upon premises to conduct periodic inspections;
- **c)** Access to copy any records required to be kept under the requirements of this Order;
- **d)** Inspection of any monitoring or remediation facilities installed in response to this Order; and
- **e)** Sampling of any groundwater or soil, which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Dischargers (as applicable).

10) Cost Recovery: The Dischargers (as applicable) shall be liable, pursuant to California Water Code Section 13304 and Health and Safety Code Section 25270.9 to the Water Board for all reasonable costs actually incurred by the Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Water Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Dischargers (as applicable) over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

11) Reporting of Changed Owner or Operator: The Dischargers (as applicable) shall file a report on any changes in site occupancy or ownership associated with the property described in this Order.

12) San Francisco Regional Water Quality Control Board Resolution No. 88-160: Water Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

13) Periodic Review of SCRs: The Water Board will review this Order periodically and may revise it when necessary. The Dischargers (as applicable) may request revisions and upon review, the Executive Officer may recommend that the Water Board revise these requirements.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 16, 2005.

Bruce H. Wolfe
Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Figure 1. Site Vicinity Map
Self-Monitoring and Reporting Program

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
WALNUTC	---	Concord	SCHAEFFER 3/3/05			114721-A1

REFERENCE:
7.5' USGS TOPOGRAPHIC QUADRANGLE OF "WALNUT CREEK, CA"; DATED: 1995; SCALE=1:24000

SCALE

0 2000 4000 FEET

Shaw™ Shaw Environmental, Inc.

MOUNTAIN CASCADE, INC.
SOUTH BROADWAY SITE
WALNUT CREEK, CALIFORNIA

FIGURE 1

SITE VICINITY MAP

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

MOUNTAIN CASCADE INC.,
EAST BAY MUNICIPAL UTILITY DISTRICT,
KINDER MORGAN ENERGY PARTNERS LLP, and,
CONTRA COSTA COUNTY.

for the property located along:
SOUTH BROADWAY ROAD
WALNUT CREEK, CONTRA COSTA COUNTY

1) **Authority and Purpose**: The Water Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Water Board Order No. R2-2005-0061 (Site Cleanup Requirements).

2) **Electronic Reporting:** The Water Board requests all reports be submitted both as an electronic copy and as a paper copy. Effective January 1, 2003, the Water Board implemented plans to image all incoming correspondence. Written correspondence received at the Water Board, including report cover letters will be imaged and stored in the same manner as outgoing correspondence. Imaging documents over ten pages or with oversize drawings or tables or color is currently not within the Water Board's capability. The Water Board therefore requests that dischargers submit each report as one paper copy and one electronic copy on one labeled CD or diskette. The paper copy will be used by the case manager and then stored as long as the document is actively used.

   The electronic copy of the report should be submitted as one PDF file. It is preferred that reports be converted from their original format (e.g., Microsoft Word) rather than scanned except for signature pages and perjury statements, which must be scanned and included. Each page in the PDF file should be rotated in the direction that facilitates reading on a computer. The electronic document will then be copied into the Water Board's electronic document management system, which will be the formal Water Board secured record for the site.

3) **Monitoring:** The Dischargers shall collect and analyze representative groundwater samples and surface water samples within the storm drains according to the following schedule and for the constituents of concern on Model Table 1. Dischargers shall also measure and report groundwater elevations and separate-product thickness in all monitoring wells on a quarterly frequency.

Model Table 1

Well No.	Frequency	TPH-gas[1]	TPH-diesel[2]	BTEX[3]	MTBE and Other Fuel Oxygenates[4]
MW-XX	Quarterly	X	X	X	X

Notes: 1) EPA Method 5030 or equivalent
2) EPA Method 3510 or equivalent
3) EPA Method 8260 or equivalent
4) EPA Method 8260 or equivalent

The Dischargers shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The Dischargers may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

4) **Quarterly Monitoring Reports**: The Dischargers shall submit quarterly monitoring reports to the Water Board no later than 30 days following the end of the quarter (e.g., report for first quarter of the year due April 30.) The reports shall include:

a) Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the Dischargers' principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

b) Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

c) Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. All previous groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases.

d) Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g., soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report

each year.

e) Surface Water Analysis: Surface water sampling data shall be presented in tabular form, and a sample location map shall be prepared for one or more key contaminants, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. All previous surface water sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases.

f) Status Report: The quarterly report shall summarize all relevant work completed during the reporting period (e.g., site investigation, interim remedial measures) and work planned for the upcoming quarter.

5) **Violation Reports**: If the Dischargers violate requirements in the Site Cleanup Requirements, then the Dischargers shall notify the Water Board office by telephone as soon as practicable once the Dischargers have knowledge of the violation. The Water Board may, depending on violation severity, require the Dischargers to submit a separate technical report on the violation within five working days of telephone notification.

6) **Other Reports**: The Dischargers shall notify the Water Board in writing prior to any site activities, such as underground pipeline or tank construction or removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.

7) **Record Keeping**: The Dischargers or their agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Water Board upon request.

8) **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his own initiative or at the request of the Dischargers. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Bruce H. Wolfe, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Water Board on November 16, 2005.

Bruce H. Wolfe
Executive Officer