Appendix A

Revised Tentative Order

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED TENTATIVE ORDER

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

MAYHEW CENTER, LLC,
AND DEAN DUNIVAN

for the property located at

3301-3341 VINCENT ROAD
PLEASANT HILL, CONTRA COSTA COUNTY

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

1. **Site Location**: The Mayhew Center site (Site) consists of three 2-story industrial/office buildings at 3301-3341-Vincent Road, in Pleasant Hill (see attached map). The Site covers approximately 3.5 acres at the intersection of Mayhew Way and Vincent Road. Adjacent properties to the north and east include commercial, office, and industrial use; to the west the site is adjacent to senior apartments (Walnut Creek Manor); single-family housing is located to the south across Mayhew Way. The Site is located about 1/3 mile east of I-680, and about 2/3 mile north of the Pleasant Hill BART station.

2. **Site History and Ownership**: The Site includes three buildings that were constructed between 1972 to 1978 by Ed and Norma Beard: building I at 3301-3309 Vincent Road, building II at 3313-3329 Vincent Road, and building III at 3331-3341 Vincent Road. The land under building III is owned by Vincent Hook Ranch LLC, and was under a 99 year lease to the Beards. All improvements and the land under buildings I and II were owned by the Beards. The Beards sold the buildings and the land under buildings I and II, to Mayhew Realty, LLC, in 1983. Mayhew Realty lost ownership of the Site in 1992 to San Francisco Federal Savings & Loan, due to foreclosure. Dean and Diane Dunivan, Betty Gordon as a trustee for the Gordon Family Trust, Mayhew Centre Investors, Cliff Tschetter, and Robert Grimes purchased the Site from the successor to San Francisco Federal Savings & Loan on January 4, 1993. Subsequently Mr. Tschetter acquired the interest from Ms. Grimes and Mr. Gorden. Mayhew Centre Investors, Mr. Tschetter, and the Dunivans transferred title to Mayhew Center, LLC, in June 1997.

   Between 1993 and 2006, more than 250 tenants have occupied the buildings, primarily for office use.

One tenant at the Site was Etch-Tek Inc. (ETI), which operated as a printed wiring board manufacturer from 1975 to February 1981 in building II (3313 to 3329 Vincent Road). Similar manufacturing often used perchloroethylene (PCE - the primary contaminant of concern at the Site); however, ETI claims it never used PCE and no records of PCE use by ETI or other tenants have been documented.

PCE was released at the Site, as evidenced by elevated concentrations of PCE in shallow soil and groundwater (see finding 6 below). The mechanisms of release are not known; however, the highest concentrations in shallow soil are found near the western property line in an area where debris, trash containers, and tanks that may have contained liquids have been stored in the past. Potential release mechanisms include surface spillage or dumping of solvent and disposal of solvent into on-site storm drains. The timing and duration of the PCE release are not precisely known but can be estimated, based on the 1991 discovery of PCE, above drinking water standards, in a groundwater monitoring well located about 850 feet downgradient of the onsite release location. Based on the site's hydrogeology, the onsite release is estimated to have begun during the mid-1970s to early 1980s, during the time that the property was owned by the Beards. This result is based on an estimated PCE velocity in groundwater of 55 to 77 feet per year. PCE was first discovered on-site in 2005.

3. **Named Dischargers**: Mayhew Center, LLC, is named as a discharger because it is the current owner of the property on which there is an ongoing discharge of pollutants, it has knowledge of the discharge or the activities that caused the discharge, and it has the legal ability to control the discharge.

Dean Dunivan is named a discharger because he is the part owner and sole manager and operator of Mayhew Center LLC. He has knowledge of the discharge and the legal ability to control an ongoing release.

Betty Gordon as trustee for the Gordon Family Trust, Mayhew Centre Investors, Cliff Tschetter, and Robert Grimes are not named as dischargers at this time. Although they owned a minority interest in the property from approximately 1993 until 1997, there is insufficient evidence that they knew or should have known of the discharge or the activities that caused the discharge between 1993 and 1997, and there is insufficient evidence of their personal involvement with or management of the property to name them for activities occurring after 1997.

San Francisco Federal Savings and Loan and its successors are not named as dischargers because they only acquired the property through foreclosure in early 1992 and sold it to Mayhew Center LLC in January 1993, thus owning the property for only a brief period of time and before the pollution was detected on-site. The Regional Water Board has no information suggesting that San Francisco Federal Savings and Loan had any active management of the property or environmental management activities.

Mayhew Realty, LLC, is not named as a discharger at this time. Although Mayhew Realty LLC owned buildings I and II from approximately January 1984 to March 1992, there is insufficient evidence that Mayhew Realty LLC knew or should have known of the discharge or the activities that caused the discharge.

Norma Beard is not named as a discharger at this time. Although she, along with her deceased husband Ed Beard, owned the property during or after the time of the activity that resulted in the discharge, there is insufficient evidence that Ms. Beard knew or should have known of the discharge or the activities that caused the discharge.

None of the former tenants are named as dischargers at this time because no records have been found that document PCE use by of these tenants.

Vincent-Hook Ranch, LLC, is not named as a discharger at this time because it does not appear that releases occurred on the portion of the Site that it owns.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Regional Water Board will consider adding those parties' names to this order.

4. **Regulatory Status**: This site is currently not subject to a previous Regional Water Board 13304 Order. However, the site has been subject to multiple 13267 directive letters.

5. **Site Hydrogeology**: The site is relatively flat, except for an approximately two- to three-foot drop at a retaining wall along the western property boundary that separates Mayhew Center from the adjacent Walnut Creek Manor. The site is covered primarily by buildings or asphalt, with small landscaped areas. Shallow soils consist of fine-grained clays and sandy clays to a depth of approximately 13 feet below ground surface (bgs). Coarser-grained sediments, consisting of sand and silty or clayey sand, were encountered between approximately 13 to 20 feet bgs, and are referred to as the A-zone. Groundwater is first encountered at about 15 feet bgs. A deeper zone, which is hydraulically connected to the A-zone, has been identified from approximately 34 to 40 feet bgs. This deeper zone is referred to as the B-zone. Groundwater flow in both the A- and B-zones is to the north-northeast.

6. **Remedial Investigation**:
Soil Investigation – On-site soil investigation began in 2005. PCE concentrations up to 4.4 milligrams per kilogram (mg/kg) were detected in shallow soils up to three feet bgs and up to 14 mg/kg in deeper vadose zone soils at 11 feet bg. Concentrations were generally higher close to the water table, at a depth of about 15 feet, while samples collected from saturated soil below 17 feet contained much lower concentrations of PCE. The Environmental Screening Level (ESL) intended to protect against PCE leaching to groundwater from overlying soils is 0.7 mg/kg. The ESL addressing direct contact with shallow soils at commercial facilities is 3.4 mg/kg. The concentration in soil is

sufficiently high to act as a continuing source of contamination to groundwater and soil vapor. PCE degradation products, including trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE), have also been detected in lower concentrations in soil.

The area of impacted soil, having concentrations high enough to act as a continuing source (referred to as a secondary source), has been sufficiently delineated and is located along the common property boundary with Walnut Creek Manor. This impacted area extends approximately 50 feet along the common property line between building II at Mayhew Center and Walnut Creek Manor, and about 15 to 20 feet from both sides of the property line (see the attached location map). The area of impacted soil at the Site is covered by an asphalt parking area or driveway, except for a narrow landscaped area along the property line. Additionally a smaller area having elevated PCE in soil is located in the paved area between buildings II and III at the Site. The area of impacted soil on the Walnut Creek Manor side of the property line is covered by asphalt paving and a carport.

The depth of soil requiring treatment extends to about 16 feet. The shallowest impacts, and highest concentrations, are found in soil on the Mayhew Center side of the Mayhew Center/Walnut Creek Manor common property line, supporting the conclusion that Mayhew Center was the release location and remains a continuing source of PCE to soil and groundwater.

Groundwater Investigation – Off-site impacts of PCE and associated degradation products, including TCE and cis-1,2-DCE, to groundwater were discovered in 1991 as part of the investigation of a TCE plume associated with the Hookston Station site, located about 300 feet east of this Site. The PCE and TCE plumes are co-mingled down gradient (northeast) of Mayhew Center. Hookston Station TCE plume extends northeast and downgradient of Mayhew Center.

Recent grab groundwater samples from on-site contained up to 7,300 micrograms per liter (µg/L) of PCE near building II at Mayhew Center. For reference, the drinking water standard is 5 µg/L. A new on-site well had a concentration of 2,800 µg/L. From this location a plume containing PCE and its degradation products at concentrations above drinking water standards extends north east about 1,300 feet and commingles with the groundwater contamination plumes from both the Haber Oil site and the Hookston Station site. Low concentrations of PCE were found in groundwater and soil gas further down gradient in residential areas. However, the downgradient (northern) edge of the Mayhew property has not been investigated sufficiently to confirm if there is another, off-site, source contributing to the PCE plume. PCE has been detected at up to 2,000 µg/L in well MW-20B, a B-zone well installed by the Hookston Station parties. This well is located about 400 feet downgradient from the primary Mayhew Center site impacted soil area. Overall, the data shows that there is downward migration of the PCE and associated breakdown products through water-bearing strata from the shallower A-zone to the deeper B-zone, and that these contaminates have migrated downgradient from the Site toward the northeast. However, the on-site vertical and horizontal extent of groundwater impact is not sufficiently defined.

Soil Vapor Investigation – The soil gas-to-indoor air pathway needs to be investigated. While some passive soil gas samples have been collected, they provide only relative concentrations. Soil gas to indoor air represents a potential exposure pathway to both on-site and off-site building occupants.

Concentrations of PCE and associated breakdown product found in soil and groundwater indicate a condition of pollution. Water quality beneficial uses have been impaired and there is a threat of vapor intrusion to occupants of buildings that overlie the plume.

7. **Interim Remedial Measures**: An Interim Remedial Action Plan (IRAP) that proposed to clean up the source area in the vicinity of the common property boundary between Mayhew Center and Walnut Creek Manor was conditionally approved on October 8, 2012. The proposed measures include excavating impacted soil in parking areas on both sides of the property boundary. The excavation is planned for a depth of about 10 feet at Walnut Creek Manor, and about 17 feet at Mayhew Center; approximately 50 to 60 feet along the property line, and out about 15 to 20 feet from the property line. Mayhew Center has not implemented this IRM due to disputes between the property owners. On January 16, 2013, the Regional Water Board issued a Notice of Violation to Mayhew Center LLC for failure to implement the IRAP. Implementing the IRM will reduce the threat to water quality, public health, and the environment posed by the discharge of waste. If the dischargers are unable to obtain access to Walnut Creek Manor an alternative approach would be to install some sort of groundwater treatment along the common property boundary, on the Mayhew Center side of the boundary, to treat any contamination that may move onto their property from Walnut Creek Manor. Groundwater flows from Walnut Creek Manor to Mayhew Center; however contamination can move from Mayhew Center toward Walnut Creek Manor via dispersion (moving from areas of higher concentration to areas of lower concentration).

   In June 2013, representatives of Mayhew Center indicated interest in an alternative cleanup method consisting of multi-phase extraction (MPE, extraction of both soil vapor and groundwater), which is intended to achieve desired source removal at less cost. In July 2013 Mayhew Center performed a pilot test of MPE and subsequently reported that the test removed an estimated 36 to 60 pounds of PCE from the subsurface. This pilot test demonstrated that MPE is a viable method for removing contaminant mass with less surface disruption than from the soil excavation proposed in the IRM.

8. **Adjacent Sites**: Two nearby sites are under investigation or cleanup. These sites include the Hookston Station site and the Haber Oil site (also called Pitcock Petroleum).

   The Hookston Station site is located east and northeast and downgradient of the Mayhew Center site. The Hookston Station site is the source of a groundwater plume containing TCE and associated degradation products that extends to the northeast under a residential neighborhood. This site is currently undergoing remediation. Groundwater remediation includes a zero-valent iron permeable reactive barrier for the A-zone, and injections of

potassium permanganate in the B-zone. In addition, vapor mitigation is taking place at several households, and private wells have been destroyed. The County has adopted an ordinance that prohibits installation of new water wells for a selected area until appropriate groundwater cleanup standards are met. The PCE plume from the Mayhew Center site partially overlaps the TCE plume from Hookston Station. In addition, the PCE released from the Mayhew Center site is breaking down to TCE and contributing to the Hookston Station TCE plume.

The Haber Oil site is located to the northeast of Mayhew Center and is undergoing investigation and remedial pilot testing to clean up petroleum hydrocarbons. Low concentrations of PCE have been found in Haber Oil's up-gradient and eastern-most monitoring wells. There is no evidence that the PCE originated at the Haber Oil site.

9. **Basin Plan**: The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required.

   The Site is located in the Ygnacio Valley Groundwater Basin, listed in the Basin Plan as DWR Basin 2-6. The potential beneficial uses of groundwater underlying and adjacent to the site include:

   a. Municipal and domestic water supply
   b. Industrial process water supply
   c. Industrial service water supply
   d. Agricultural water supply

   At present there is no known use of groundwater directly underlying the Site. However, domestic irrigation wells were in use in the Colony Park neighborhood located down gradient of Mayhew Center. Ten of these wells have now been destroyed as part of the remedial efforts connected with Hookston Station. The County has placed a restriction on installing new production wells in this area to prevent future exposure to contaminated ground water.

10. **Other Regional Water Board Policies**: Regional 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.

    Regional Water Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

11. **State Water Board Policies**: State Water Board 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. This order and its requirements are consistent with Resolution No. 68-16.

    State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. 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 exceedance of applicable water quality objectives. The remedial action plan will assess the feasibility of attaining background levels of water quality. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Preliminary Cleanup Goals**: Pending the establishment of site-specific cleanup levels, the following preliminary cleanup goals may be used for the purpose of conducting remedial investigation and interim remedial actions:

    a. Groundwater: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Groundwater screening levels should incorporate at least the following exposure pathways: groundwater ingestion and vapor intrusion to indoor air. For groundwater ingestion, use applicable water quality objectives (e.g., lower of primary and secondary 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.

    b. Soil: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Soil screening levels are intended to address a full range of exposure pathways, including direct exposure, nuisance, and leaching to groundwater. For purposes of this subsection, the dischargers should assume that groundwater is a potential source of drinking water.

    c. Soil gas: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Soil gas screening levels are intended to address the vapor intrusion- to- indoor air pathway.

13. **Basis for 13304 Order**: California Water Code Section 13304 authorizes the Regional Water Board to issue orders requiring a discharger to cleanup and abate waste where the discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

14. **Cost Recovery**: Pursuant to California Water Code Section 13304, the dischargers are hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional 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.

15. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to be remediated such that maximum contaminant levels (designed to protect human health and ensure that water is safe for domestic use) are met in existing and future supply wells. The PCE plume does not affect any existing supply wells.

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

17. **Notification**: The Regional 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 Regional Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to sections 13304 and 13267 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall investigate, cleanup and abate the effects described in the above findings as follows:

A. **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 subsurface transport to waters of the State is prohibited.

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

B. **TASKS**

1. **REVISED INTERIM REMEDIAL ACTION WORK PLAN**

COMPLIANCE DATE: MARCH 31, 2014

If not implementing the current Interim Remedial Action Plan (IRAP), dated October 10, 2012, submit a revised work plan acceptable to the Executive Officer to evaluate interim remedial action alternatives and to recommend one or more alternatives for implementation. This revision may include only working on Mayhew Center property and could include some sort of treatment or cut-off wall for pollutants both entering and leaving the property.

Any new work plan should include the following:

a. A description of site conditions including the nature and extent of contamination
b. Goals of the interim remedial action (i.e., mass removal)
c. Discussion of anticipated effectiveness
d. Description of proposed work including the rationale, location, depths, etc of prosed work
e. Description of proposed methods including the installation of wells; equipment staging; and storage, handling, and disposition of generated wastes
f. Description of sampling plan to confirm effectiveness
g. Measures to be employed to ensure health and safety of workers and the public during implementation of the IRAP
h. Proposed time schedule, and
i. Appropriate professional stamp.

Work may be phased to allow the remedial work to proceed efficiently and may include different tasks for soil, ground water, and soil vapor remedial action. The Executive Officer may waive this task if access is obtained to Walnut Creek Manor property and the original IRAP is implemented.

2. **COMPLETION OF INTERIM REMEDIAL ACTIONS**

COMPLIANCE DATE: MAY 30, 2014

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Interim Remedial Action Plan (IRAP), dated October 10, 2012, or the alternative Task 1 work plan. For ongoing actions, such as soil vapor extraction or in-situ treatment, the report should document start-up and operation.

3. **COMPLETION OF APPROVED ONSITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: MAY 30, 2014

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the approved work plan for investigation, dated March 14, 2011. While some of this work plan has already been implemented, this task is intended to result in completion of the investigation of the on-site horizontal and vertical extent of soil and groundwater impacts. This task is also intended to resolve whether there are potential soil vapor impacts to the onsite office spaces and if there is another, down-gradient, PCE source. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below typical cleanup levels for soil and groundwater.

4. **OFF-SITE REMEDIAL INVESTIGATION WORK PLAN**

COMPLIANCE DATE: JULY 28, 2014

Submit a work plan acceptable to the Executive Officer to define the vertical and lateral extent of soil, soil vapor, groundwater, and indoor air pollution. The work plan should specify investigation methods and a proposed time schedule. Any additional on-site investigation work that may be needed should be included with this task. The work may be phased to allow the investigation to proceed efficiently, provided that this does not delay compliance.

5. **COMPLETION OF OFF-SITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: 100 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 4 WORK PLAN

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Off-Site Remedial Investigation Work Plan. The technical report should document the vertical and lateral extent of pollution down to concentrations at or below typical cleanup levels for soil vapor, groundwater, and indoor air quality.

6. **RISK ASSESSMENT WORK PLAN**

COMPLIANCE DATE: 45 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 3 REPORT

Submit a work plan acceptable to the Executive Officer for preparation of either a screening level evaluation or a site-specific risk assessment. The work plan shall include a conceptual site model that identifies pathways and receptors where site contaminants pose a potential threat to human health or the environment. If a

screening level evaluation is selected, the work plan shall identify which screening levels will be used and demonstrate that they address all relevant pathways and receptors for the site. The Executive Officer may revise this date if needed.

7. **RISK ASSESSMENT COMPLETION REPORT**

COMPLIANCE DATE: 60 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 6 WORKPLAN

Submit a technical report acceptable to the Executive Officer documenting completion of tasks identified in the Task 6, Risk Assessment Work plan. The report shall comprise either a screening level evaluation or a site-specific risk assessment. The results of this report will help establish acceptable exposure levels, to be used in developing remedial alternatives in Task 8.

8. **REMEDIAL ACTION PLAN INCLUDING PROPOSED CLEANUP STANDARDS**

COMPLIANCE DATE: 60 DAYS FOLLOWING EXECUTIVE OFFICER APPROVAL OF COMPLETION OF TASK 7 REPORT

Submit a technical report acceptable to the Executive Officer containing:

a. Summary of remedial investigation
b. Summary of risk assessment
c. Evaluation of the installed interim remedial actions
d. Feasibility study evaluating alternative final remedial actions
e. Recommended final remedial actions and cleanup levels
f. Implementation tasks and time schedule

The Remedial Action Plan must propose remedial work that has a high probability of eliminating unacceptable threats to human health and restoring beneficial uses of water in a reasonable time. An assessment of "reasonable time" shall be based on the severity of impact to the beneficial use (for current impacts) or the time before the beneficial use will occur (for potential future impacts).

This task may be subdivided to separately address on- and off-site groundwater, soil, and vapors. Each part could have a separate work plan and technical report.

Item d should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through d should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40

C.F.R. § 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code section 25356.1(c), and State Water Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Item e should consider the preliminary cleanup goals for soil and groundwater identified in finding **12** and should address the attainability of background levels of water quality (see finding **11**).

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 Regional Water Board or Executive Officer may consider revision to this Order.

C. **PROVISIONS**

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in Water Code section 13050(m).

2. **Good Operation and Maintenance (O&M)**: The dischargers 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.

3. **Cost Recovery**: The dischargers shall be liable, pursuant to Water Code section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional 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 over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with Water Code section 13267(c), the dischargers shall permit the Regional Water Board or its authorized representative:

    a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

b. Access to copy any records required to be kept under the requirements of this Order.

c. Inspection of any monitoring or remediation facilities installed in response to this Order.

d. 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.

5. **Self-Monitoring Program**: The dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

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

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

8. **Uploading Documents to the GeoTracker database**: Electronic copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be uploaded to the State Water Board's GeoTracker database within five business days after submittal to the Regional Water Board. Guidance for electronic information submittal is available at: http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/

9. **Document Distribution**: An electronic and paper version of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the Regional Water Board, and electronic copies shall be provided to the following agencies and interested parties:

   a. Contra Costa County Health Services Department
   b. Hookston Station Parties
   c. Walnut Creek Manor Parties

   The Executive Officer may modify this distribution list as needed.

10. **Reporting of Changed Owner or Operator**: The dischargers shall file a technical report on any changes in contact information, site occupancy or ownership associated with the property described in this Order.

11. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the dischargers shall report such discharge to the Regional Water Board by calling (510) 622-2369.

    A written report shall be filed with the Regional Water Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

    This reporting is in addition to reporting to the California Emergency Management Agency required pursuant to the Health and Safety Code.

12. **Periodic SCR Review**: The Regional Water Board will review this Order periodically and may revise it when necessary. The dischargers may request revisions and upon review the Executive Officer may recommend that the Regional 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 _____.

_____
Bruce H. Wolfe
Executive Officer

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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

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Attachments: Self-Monitoring Program
Location Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

MAYHEW CENTER, LLC,
AND DEAN DUNIVAN

for the property located at

3301-3341 VINCENT ROAD
PLEASANT HILL, CONTRA COSTA COUNTY

1. **Authority and Purpose**: The Regional 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 Regional Water Board Order No. *XX-XXX* (site cleanup requirements).

2. **Monitoring**: The dischargers shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses
MW-1A	SA	8260
MW-1B	SA	8260
MW-1C	A	8260
MPE-1	SA	8260
MPE-2	SA	8260
MPE-3	SA	8260
MPE-4	SA	8260
MW-20A	SA	8260
MW-20B	SA	8260
MW-21A	SA	8260
MW-21B	SA	8260

Future wells	TBD	8260

Note: Wells MW-20A, -20B, -21A, and 21B are Hookston Station wells. Sampling these wells will require an agreement with the Hookston parties.

Key: TBD = To be determined
SA = Semi-Annually
A = Annually
8260 = EPA Method 8260 or equivalent

The dischargers shall sample any new monitoring or extraction wells Semi-annually and analyze groundwater samples for the same constituents as shown in the above table.

Monitoring well gauging and sampling at this Site shall be coordinated with gauging and sampling at the adjacent Hookston Station site to the extent possible. In no case shall these data be collected more than one week apart. Groundwater samples shall be analyzed using the USEPA method 8260. The dischargers may propose changes in the sampling and analytical program; any proposed changes are subject to Executive Officer approval.

3. **Semi-Annual Monitoring Reports**: The dischargers shall submit semi-annual monitoring reports to the Regional Water Board no later than 30 days following the end of the quarter sampled (e.g., report for first quarter of the year due April 30). The first monitoring report shall be due on October 31, 2013. 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 their 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 final monitoring report each year.

Groundwater elevations shall be measured from a surveyed point at each well established by a California licensed surveyor. The survey should use the same datum as the adjacent Hookston Station Site.

c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map(s) 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. A graph and a table showing historical groundwater sampling results shall be included in the final monitoring 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. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

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

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

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

6. **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 Regional Water Board upon request.

7. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her 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.

8. **Uploading Reports to the GeoTracker database:** All monitoring reports and laboratory data shall be uploaded to the State Water Board's GeoTracker database within five business days of submittal to the Regional Water Board. An electronic copy and one paper copy of all reports shall be submitted to the Regional Water Board, and an electronic copy submitted to Contra Costa County, Health Services Department.

Appendix B

Public Comments

DuaneMorris®

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November 14, 2013

VIA E-MAIL, US MAIL AND TO BE POSTED TO GEOTRACKER

Bruce H. Wolfe
Dyan C. Whyte
Ralph Lambert, PG, CHg
San Francisco Bay Regional Water
Quality Control Board
Suite 1500
1515 Clay Street
Oakland CA 94612

Re: Mayhew Center LLC PCE Contamination
Your File No. 0750183(RAL) - WCM's Objections to October 21, 2013 Tentative Order re Enforcement

Dear Mr. Wolfe, Ms. Whyte and Mr. Lambert:

As you know, this office represents Walnut Creek Manor LLC ("WCM"). This letter sets forth WCM's objections to the Regional Board's revised draft Tentative Order regarding Site Cleanup Requirements for Mayhew Center, LLC ("MC"), dated October 21, 2013. For the Regional Board's convenience, we have drafted a red-lined version of the Regional Board's October 21 Tentative Order that sets forth WCM's requested changes. That document is attached hereto as Exhibit "A". WCM also submits separately attaches a November 14, 2013 letter from Scott Warner of Environ, addressing technical issues that we request be revised in the final order. (The Environ letter is attached hereto as Exhibit "B".) This letter also incorporates our July 25, 2013 letter to the Regional Board regarding the June 24, 2013 Tentative Order. WCM notes that most of the objections and proposed revisions in WCM's prior letter and that of its consultant, Scott Warner of Environ, were not included in the revised October 21, 2013 Tentative Order. WCM objects to the tentative order on all these grounds and requests changes be made for clarity and accuracy, as well as to avoid future disputes, as reflected in the document attached as Exhibit "A".

If you have any questions or would like to discuss further, please contact me.

1. **The Tentative Order Should Require Remediation Of The WCM Property To Residential Standards Through Implementation of the October 2012 IRAP, Consistent With The Regional Board's Directive Under Resolution 92-49 And To Comply With The Federal Injunction Order.**

As we discussed in our prior letter, Resolution 92-49 mandates that cleanup orders under Section 13304 include cleanup of neighboring properties that have been impacted by contamination. We also brought to your attention a Federal district court Judgment and Injunction Order requiring MC and Dunivan to remediate the WCM property to residential standards. There simply is no reason why the Section 13304 cleanup order to MC should not also require remediation of the WCM property as mandated by the Federal Injunction Order. In addition, the cleanup should be to residential standards, as the Federal Injunction Order requires it. By contrast, the Regional Board's October 21 Tentative Order does not set forth these stringent and appropriate standards.

If the Tentative Order were to become final in its current form, there would be a conflict between the Federal Injunction Order and the Regional Board's Section 13304 order. As the Regional Board has indicated its prior willingness to assist in the federal court proceedings, it should strive to issue a cleanup order that furthers, rather than hinders, the federal order. As explained in our July 25, 2013 letter, the October 2012 IRAP, if implemented, would result in the cleanup and remediation of the harm caused to the WCM property to the residential levels that are specifically mandated by the Injunction Order. This IRAP was subject to extensive planning and public participation, and it represents a ready and able blueprint for the remediation of both the MC and WCM properties. The Regional Board's Tentative Order falsely characterizes why the IRAP has not been implemented. MC's failure to carry out the IRAP was not due to "disputes between the property owners," but rather to MC's unwillingness to comply with the conditions set forth in the access documents in the settlement between MC and WCM, as well as the Federal Injunction Order which incorporated those access documents. MC is fully able to comply with those access requirements – as it originally agreed to do – and thus would be fully able to comply with a Section 13304 order that incorporated the October 2012 IRAP. WCM requests that the erroneous statements be deleted from Section 7, as reflected in the attached Exhibit "A".

In sum, WCM respectfully requests the Regional Board to make a wholesale change to Section B "Tasks" portion of the Tentative Order, and replace that section with a mandate to carry out the October 2012 IRAP on a reasonably expeditious time-schedule. Attachment "A" to this letter at page 8 reflects this objection and requested change.

2. The Tentative Order Contains Inaccurate, Incomplete And Misleading Statements And References, Specifically Regarding The "Source Area" For The PCE Contamination, Which Should Be Revised And/Or Omitted, Consistent With The Facts.

WCM's July 25 letter explained in detail why the Regional Board's June 24 Tentative Order contained inaccuracies as to the source of the contamination. The Board appears to have altered its language describing the PCE source area, but this revised language contains its own set of problems.

Section 6 of the October 21 Tentative Order suggests the existence of a "secondary" PCE source. However, in reality there is *one single* PCE source, and that source is on the Mayhew Center property. Any reference to a "secondary" source only confuses the clarity of this determination and should be removed, reflected in the attached redline of the October 21, 2013 Tentative Order. (Once again, the following discussion is in addition to WCM's arguments regarding responsibility for and location of the PCE source set forth in its July 25, 2013 letter. WCM also incorporates by reference the technical arguments set forth in the November 14, 2013 letter by Scott Warner of Environ Inc.) Specifically, the Tentative Order states:

> The area of impacted soil, having concentrations high enough to act as a continuing source (referred to as a secondary source), has been sufficiently delineated and is located along the common property boundary with Walnut Creek Manor. This impacted area extends approximately 50 feet along the common property line between building II at Mayhew Center and Walnut Creek Manor, and about 15 to 20 feet from both sides of the property line (see the attached location map).

See October 21, 2013 TO at p. 4, para. 2

This passage is both confusing and unnecessary. First, under the Regional Board's description of the source, there is no distinction between the "source" and the "secondary source." Each, by the Regional Board's account, potentially threatens groundwater at the site. This logic is flawed because there is no change in the character of the source at MC simply because the PCE has migrated across the WCM property line. It has been established that the only PCE source near the WCM/MC property line was caused by a discharge on the MC property. In the eight years since this investigation began, and at no point in the litigation between MC and WCM, has any party or the Regional Board produced any evidence of any PCE use – must less a discharge – on the WCM property. The credible evidence establishes only that the WCM property was impacted by passive migration from the MC release point, and the slant-

boring and other drilling conducted by MC and Dean Dunivan. Thus, the Regional Board's labeling the PCE "area of impacted soil" (which includes the non-source impacted WCM property) as a "secondary source" is meaningless because every molecule of PCE on WCM's property came from MC – *i.e., the primary and sole source of the PCE.*

Second, there are no data to support that PCE exists in the soil at the WCM property to a degree that actually threatens to impact the groundwater under the WCM site. And there is no site-specific data to support the Regional Board's suggestion that PCE in groundwater under the WCM property is migrating into the groundwater under the MC property.

In short, the final cleanup order to MC and Dunivan should reflect the fact that *all* of the PCE at the MC/WCM property line comes from a sole and primary source at MC, and that *none* of that PCE has come from a discharge or release at the WCM property.

Accordingly, WCM requests that the final order include the redline changes to Section 6, page 4, paragraph 2, reflected in the attached Exhibit "A".

3. The Tentative Order Should Be Amended To Expressly State That WCM Is Not A Discharger, As Determined By Both A Federal Jury And U.S. District Court Judge.

After years of litigation, as well as a jury and bench trial, it has been proven that no PCE was discharged on the WCM property. In addition, in the eight years since the Regional Board's investigation began, there is no credible evidence to support a PCE discharge at the WCM property. Consistent with the overwhelming evidence, WCM should be classified as a "non-discharger," along with the other parties referenced in the Regional Board's tentative order that have no responsibility for the existence of PCE contamination at the site.

These requested changes are reflected in Section 3, page 3, paragraph 4, of Exhibit "A".

* * *

In conclusion, WCM objects to the October 21, 2013 Tentative Order for the reasons set forth above, as set forth in its previous objection letter dated July 25, 2013, and as set forth in the accompanying letter of Scott Warner submitting technical objections to the October 21 Tentative Order. WCM respectfully requests that the final cleanup order directed to MC and Dunivan to reflect and address WCM's objections and requested revisions, as set forth in Exhibit "A".

If you have any questions or concerns, we would be happy to discuss them with you.

Very truly yours,

Brian A. Kelly

BAK:jlm

cc: Tamarin Austin, Esq. (via email)
Dean Dunivan (via email)
Milt Eberle (via email)

EXHIBIT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TENTATIVE ORDER

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

MAYHEW CENTER, LLC,
AND DEAN DUNIVAN

for the property located at

3301-3341 VINCENT ROAD
PLEASANT HILL, CONTRA COSTA COUNTY

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

1. **Site Location**: The Mayhew Center site (Site) consists of three 2-story industrial/office buildings at 3301-3341-Vincent Road, in Pleasant Hill (see attached map). The Site covers approximately 3.5 acres at the intersection of Mayhew Way and Vincent Road. Adjacent properties to the north and east include commercial, office, and industrial use; to the west the site is adjacent to senior apartments; single-family housing is located to the south across Mayhew Way. The Site is located about 1/3 mile east of I-680, and about 2/3 mile north of the Pleasant Hill BART station.

2. **Site History and Ownership**: The Mayhew Site includes three buildings that were constructed between 1972 to 1978 by Ed and Norma Beard: building I at 3301-3309 Vincent Road, building II at 3313-3329 Vincent Road, and building III at 3331-3341 Vincent Road. The land under building III is owned by Vincent Hook Ranch LLC, and was under a 99 year lease to the Beards. All improvements and the land under buildings I and II were owned by the Beards. The Beards sold the buildings and the land under buildings I and II, to Mayhew Realty, LLC, in 1983. Mayhew Realty lost ownership of the Site in 1992 to San Francisco Federal Savings & Loan, due to foreclosure. Dean and Diane Dunivan, Betty Gordon as a trustee for the Gordon Family Trust, Mayhew Centre Investors, Cliff Tschetter, and Robert Grimes purchased the Site from the successor to San Francisco Federal Savings & Loan on January 4, 1993. Subsequently Mr. Tschetter acquired the interest from Ms. Grimes and Mr. Gorden. Mayhew Centre Investors, Mr. Tschetter, and the Dunivans transferred title to Mayhew Center, LLC, in June 1997.

   Between 1993 and 2006, more than 250 tenants have occupied the buildings, primarily for office use.

One tenant at the Site was Etch-Tek Inc. (ETI), which operated as a printed wiring board manufacturer from 1975 to February 1981 in building II (3313 to 3329 Vincent Road). Similar manufacturing often used perchloroethylene (PCE - the primary contaminant of concern at the Site). ~~; however, ETI claims it never used PCE and no records of PCE use by ETI or other tenants have been documented.~~

PCE was released at the Mayhew Center ~~s~~Site, as evidenced by elevated concentrations of PCE in shallow soil and groundwater (see finding 6 below). ~~The mechanisms of release are not known; however, t~~The highest concentrations in shallow soil are found near the western property line in an area where debris, trash containers, and tanks that may have contained liquids have been stored in the past. Potential release mechanisms include surface spillage or dumping of solvent and disposal of solvent into on-site storm drains. The timing and duration of the PCE release are not precisely known ~~but can be estimated, based on~~however PCE was detected in ~~the~~ 1991 ~~discovery of PCE~~ in a groundwater monitoring well located about 850 feet downgradient of the onsite release location. Based on the site's hydrogeology, the onsite release ~~most likely~~is estimated to have begun ~~began~~ during the mid-1970s to early 1980s, during the time that the property was owned by the Beards. ~~This result is based on an estimated PCE velocity in groundwater of 55 to 77 feet per year.~~ PCE was first discovered on-site in 2005.

3. **Named Dischargers**: Mayhew Center, LLC, is named as a discharger because it is the current owner of the property on which there is an ongoing discharge of pollutants, it has knowledge of the discharge or the activities that caused the discharge, and it has the legal ability to control the discharge.

Dean Dunivan is named a discharger because he is the part owner and sole manager and operator of Mayhew Center LLC. He has knowledge of the discharge and the legal ability to control an ongoing release.

Betty Gordon as trustee for the Gordon Family Trust, Mayhew Centre Investors, Cliff Tschetter, and Robert Grimes are not named as dischargers at this time. Although they owned a minority interest in the property from approximately 1993 until 1997, there is insufficient evidence that they knew or should have known of the discharge or the activities that caused the discharge between 1993 and 1997, and there is insufficient evidence of their personal involvement with or management of the property to name them for activities occurring after 1997.

San Francisco Federal Savings and Loan and its successors are not named as dischargers because they only acquired the property through foreclosure in early 1992 and sold it to Mayhew Center LLC in January 1993, thus owning the property for only a brief period of time and before the pollution was detected on-site. The Regional Water Board has no information suggesting that San Francisco Federal Savings and Loan had any active management of the property or environmental management activities.

Mayhew Realty, LLC, is not named as a discharger at this time. Although Mayhew Realty LLC owned buildings I and II from approximately January 1984 to March 1992, there is insufficient evidence that Mayhew Realty LLC knew or should have known of the discharge or the activities that caused the discharge.

Norma Beard is not named as a discharger at this time. Although she, along with her deceased husband Ed Beard, owned the property during or after the time of the activity that resulted in the discharge, there is insufficient evidence that Ms. Beard knew or should have known of the discharge or the activities that caused the discharge.

None of the former tenants are named as dischargers at this time because no records have been found that document PCE use by of these tenants.

Vincent-Hook Ranch, LLC, is not named as a discharger at this time because it does not appear that releases occurred on the portion of the Site that it owns.

Walnut Creek Manor LLC, is not named as a discharger, and is not suspected of being a discharger based upon the available evidence and a jury verdict and court ruling in Federal Court between Walnut Creek Manor LLC and Mayhew Center, LLC and Dean Dunivan.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Regional Water Board will consider adding those parties' names to this order.

4. **Regulatory Status**: This site is currently not subject to a previous Regional Water Board 13304 Order. However, the site has been subject to multiple 13267 directive letters and has been fined for noncompliance of 13267 directives. A history of regulatory actions against MC is found in the June 18, 2012 Administrative Civil Liability Complaint No. R2-2012-0222..

5. **Site Hydrogeology**: The site is relatively flat, except for an approximately two- to three-foot drop at a retaining wall along the western property boundary that separates Mayhew Center from the adjacent Walnut Creek Manor. The site is covered primarily by buildings or asphalt, with small landscaped areas. The shallow soils consist of fine-grained clays and sandy clays to a depth of approximately 13 feet below ground surface (bgs). Coarser-grained sediments, consisting of sand and silty or clayey sand, were encountered between approximately 13 to 20 feet bgs, and are referred to as the A-zone. Groundwater is first encountered at about 15 feet bgs. A deeper zone~~, which is hydraulically connected to the A-zone,~~ has been identified from approximately 34 to 40 feet bgs. This deeper zone is referred to as the B-zone. Groundwater flow in both the A- and B-zones generally is anticipated to be toward the north-northeast.

6. **Remedial Investigation**:

Soil Investigation – On-site soil investigation began in 2005. PCE concentrations up to 4.4 milligrams per kilogram (mg/kg) were detected in shallow soils up to three feet bgs and up to 14 mg/kg in deeper vadose zone soils at 11 feet bg. Concentrations were generally higher close to the water table, at a depth of about 15 feet, while samples collected from saturated soil below 17 feet contained much lower concentrations of PCE. The Environmental Screening Level (ESL) intended to protect against PCE leaching to groundwater from overlying soils is 0.7 mg/kg. The ESL addressing direct contact with shallow soils at commercial facilities is 3.4 mg/kg. The concentration in soil is sufficiently high to act as a continuing source of contamination to groundwater and soil vapor. PCE degradation products, including trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE), have also been detected in lower concentrations in soil.

The source area of impacted soil, ~~having concentrations high enough to act as a continuing source (referred to as a secondary source),~~ has been sufficiently delineated and is located along the on the Mayhew Center Site, near the common property boundary with Walnut Creek Manor. The source on the Mayhew Center has impacted an area that extends approximately 50 feet along the common property line between building II at Mayhew Center and Walnut Creek Manor, and about 15 to 20 feet from both sides of the property line (see the attached location map). This source area at the Mayhew Center Site is covered by an asphalt parking area or driveway, except for a narrow landscaped area at the property line. The source area has impacted an area on the Walnut Creek Manor property that is covered by a carport over asphalt paving. Additionally, a~~A~~ smaller area having elevated PCE in soil is located in the paved area between buildings II and III at the Site.

The depth of soil requiring treatment extends to about 16 feet. The shallowest impacts, and highest concentrations, are found in soil on the Mayhew Center side of the Mayhew Center/Walnut Creek Manor common property line, supporting the conclusion that Mayhew Center was the release location and remains a continuing source of PCE to soil and groundwater.

Groundwater Investigation – Off-site impacts of PCE and associated degradation products, including TCE and cis-1,2-DCE, to groundwater were discovered in 1991 as part of the investigation of a TCE plume associated with the Hookston Station site, located about 300 feet east of this Site. The PCE and TCE plumes are co-mingled down gradient (northeast) of Mayhew Center. Hookston Station TCE plume extends northeast and downgradient of Mayhew Center.

Recent grab groundwater samples from on-site have contained up to 7,300 micrograms per liter (µg/L) of PCE near building II at Mayhew Center. For reference, the drinking water standard is 5 µg/L. A new on-site well had a concentration of 2,800 µg/L. From this location a plume containing PCE and its degradation products at concentrations above drinking water standards extends north east about 1,300 feet and commingles with the groundwater contamination plumes from both the Haber Oil site and the Hookston

Station site. Low concentrations of PCE were found in groundwater and soil gas further down gradient in residential areas. However, the downgradient (northern) edge of the Mayhew property has not been investigated sufficiently to confirm if there is another, off-site, source contributing to the PCE plume. PCE has been detected at up to 2,000 µg/L in well MW-20B, a B-zone well installed by the Hookston Station parties. This well is located about 400 feet downgradient from the primary Mayhew Center site impacted soil area. Overall, the data shows that there is downward migration of the PCE and associated breakdown products through water-bearing strata from the shallower A-zone to the deeper B-zone, and that these contaminates have migrated downgradient from the Site toward the northeast. However, the on-site vertical and horizontal extent of groundwater impact is not sufficiently defined.

Soil Vapor Investigation – The soil gas-to-indoor air pathway needs to be investigated. While some passive soil gas samples have been collected, they provide only relative concentrations. Soil gas to indoor air represents a potential exposure pathway to both on-site and off-site building occupants.

Concentrations of PCE and associated breakdown product found in soil and groundwater indicate a condition of pollution. Water quality beneficial uses have been impaired and there is a threat of vapor intrusion to occupants of buildings that overlie the plume.

7. **Interim Remedial Measures**: An October 2012 Interim Remedial ~~measures~~ Action Plan (~~IRM~~IRAP) was proposed to clean up the source area in the vicinity of the common property boundary between Mayhew Center and Walnut Creek Manor, and the IRAP was conditionally approved by the Regional Board on October 8, 2012. The proposed measures include excavating impacted soil in parking areas on both sides of the property boundary. The excavation is planned for a depth of about 10 feet at Walnut Creek Manor, and about 17 feet at Mayhew Center; approximately 50 to 60 feet along the property line, and out about 15 to 20 feet from the property line. This IRAP has not been implemented by Mayhew Center and on January 16, 2013 the Regional Board issued a Notice of Violation for this failure. ~~due to disputes between the property owners.~~ Implementing the ~~IRM~~ IRAP will reduce the threat to water quality, public health, and the environment posed by the discharge of waste. ~~If the dischargers are unable to obtain access to Walnut Creek Manor an alternative approach would be to install some sort of groundwater treatment along the common property boundary, on the Mayhew Center side of the boundary, to treat any impacted water that may flow onto their property from Walnut Creek Manor. Groundwater flows from Walnut Creek Manor to Mayhew Center.~~

In June 2013, representatives of Mayhew Center indicated interest in an alternative cleanup method consisting of multi-phase extraction (MPE, consisting of extracting both soil vapor and groundwater)~~, intended to achieve desired source removal at less cost~~. Mayhew Center performed a~~A~~ July 2013 pilot test ~~of MPE~~without an approved workplan and subsequently reported that the pilot test removed an estimated 36 to 60 pounds of PCE from the subsurface. Mayhew Center also installed several long-screened

(approximately 40-ft length) large diameter (4-inch) wells for the MPE testing that now act as conduits for PCE to migrate to deeper zones.

8. **Adjacent Sites**: Two nearby sites are under investigation or cleanup. These sites include the Hookston Station site and the Haber Oil site (also called Pitcock Petroleum).

The Hookston Station site is located east and northeast and downgradient of the Mayhew Center site. The Hookston Station site is the source of a groundwater plume containing TCE and associated degradation products that extends to the northeast under a residential neighborhood. This site is currently undergoing remediation. Groundwater remediation includes a zero-valent iron permeable reactive barrier for the A-zone, and injections of potassium permanganate in the B-zone. In addition, vapor mitigation is taking place at several households, and private wells have been destroyed. The County has adopted an ordinance that prohibits installation of new water wells for a selected area until appropriate groundwater cleanup standards are met. The PCE plume from the Mayhew Center site partially overlaps the TCE plume from Hookston Station. In addition, the PCE released from the Mayhew Center site is breaking down to TCE and contributing to the Hookston Station TCE plume.

The Haber Oil site is located to the northeast of Mayhew Center and is undergoing investigation and remedial pilot testing to clean up petroleum hydrocarbons. Low concentrations of PCE have been found in Haber Oil's up-gradient and eastern-most monitoring wells. There is no evidence that the PCE originated at the Haber Oil site.

9. **Basin Plan**: The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required.

The Site is located in the Ygnacio Valley Groundwater Basin, listed in the Basin Plan as DWR Basin 2-6. The potential beneficial uses of groundwater underlying and adjacent to the site include:

a. Municipal and domestic water supply
b. Industrial process water supply
c. Industrial service water supply
d. Agricultural water supply

At present there is no known use of groundwater directly underlying the Site. However, domestic irrigation wells were in use in the Colony Park neighborhood located down gradient of Mayhew Center. Ten of these wells have now been destroyed as part of the remedial efforts connected with Hookston Station. The County has placed a restriction on

installing new production wells in this area to prevent future exposure to contaminated ground water.

10. **Other Regional Water Board Policies**: Regional 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.

    Regional Water Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

11. **State Water Board Policies**: State Water Board 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. This order and its requirements are consistent with Resolution No. 68-16.

    State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. 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 exceedance of applicable water quality objectives. The remedial action plan will assess the feasibility of attaining background levels of water quality. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Preliminary Cleanup Goals**: Pending the establishment of site-specific cleanup levels, the following preliminary cleanup goals may be used for the purpose of conducting remedial investigation and interim remedial actions:

    a. Groundwater: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Groundwater screening levels should incorporate at least the following exposure pathways: groundwater ingestion and vapor intrusion to indoor air. For groundwater ingestion, use applicable water quality objectives (e.g., lower of primary and secondary 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.

    b. Soil: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Soil screening levels are intended to address a full range of exposure pathways, including direct exposure, nuisance, and leaching to groundwater. For purposes of this subsection, the dischargers should assume that groundwater is a potential source of drinking water.

c. Soil gas: Applicable screening levels such as the Regional Water Board's Environmental Screening Levels (ESLs). Soil gas screening levels are intended to address the vapor intrusion- to- indoor air pathway.

13. **Basis for 13304 Order**: California Water Code Section 13304 authorizes the Regional Water Board to issue orders requiring a discharger to cleanup and abate waste where the discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

14. **Cost Recovery**: Pursuant to California Water Code Section 13304, the dischargers are hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional 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.

15. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to be remediated such that maximum contaminant levels (designed to protect human health and ensure that water is safe for domestic use) are met in existing and future supply wells. The PCE plume does not affect any existing supply wells.

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

17. **Notification**: The Regional 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 Regional Water Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to sections 13304 and 13267 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall investigate, cleanup and abate the effects described in the above findings as follows:

A. **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 subsurface transport to waters of the State is prohibited.

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

B. **TASKS [WALNUT CREEK MANOR LLC OBJECTS TO THE ENTIRETY OF SECTION B, AS WELL AS ANY ORDER THAT EXCUSES MAYHEW CENTER FROM IMPLEMENTING THE PREVIOUSLY-APPROVED OCTOBER 2012 INTERIM REMEDIAL ACTION PLAN OR TO ACHIEVE COMPLIANCE WITH RESIDENTIAL STANDARDS ON THE IMPACTED WALNUT CREEK MANOR PROPERTY AS REQUIRED BY THE NOVEMBER 23, 2010 INJUNCTION ORDER.]**

1. **REVISED INTERIM REMEDIAL ACTION WORK PLAN**

COMPLIANCE DATE: MARCH 31, 2014

If not implementing the current Interim Remedial Action Plan (IRAP), dated October 10, 2012, submit a revised work plan acceptable to the Executive Officer to evaluate interim remedial action alternatives and to recommend one or more alternatives for implementation. This revision may include only working on Mayhew Center property and could include some sort of treatment or cut-off wall for pollutants both entering and leaving the property.

Any new work plan should include the following:

a. A description of site conditions including the nature and extent of contamination
b. Goals of the interim remedial action (i.e., mass removal)
c. Discussion of anticipated effectiveness
d. Description of proposed work including the rationale, location, depths, etc of prosed work
e. Description of proposed methods including the installation of wells; equipment staging; and storage, handling, and disposition of generated wastes
f. Description of sampling plan to confirm effectiveness
g. Measures to be employed to ensure health and safety of workers and the public during implementation of the IRAP
h. Proposed time schedule, and
i. Appropriate professional stamp.

Work may be phased to allow the remedial work to proceed efficiently and may include different tasks for soil, ground water, and soil vapor remedial action. The Executive Officer may waive this task if access is obtained to Walnut Creek Manor property and the original IRAP is implemented.

2. **COMPLETION OF INTERIM REMEDIAL ACTIONS**

COMPLIANCE DATE: MAY 30, 2014

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Interim Remedial Action Plan (IRAP), dated October 10, 2012, or the alternative Task 1 work plan. For ongoing actions, such as soil vapor extraction or in-situ treatment, the report should document start-up and operation.

3. **COMPLETION OF APPROVED ONSITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: MAY 30, 2014

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the approved work plan for investigation, dated March 14, 2011. While some of this work plan has already been implemented, this task is intended to result in completion of the investigation of the on-site horizontal and vertical extent of soil and groundwater impacts. This task is also intended to resolve whether there are potential soil vapor impacts to the onsite office spaces and if there is another, down-gradient, PCE source. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below typical cleanup levels for soil and groundwater.

4. **OFF-SITE REMEDIAL INVESTIGATION WORK PLAN**

COMPLIANCE DATE: JULY 28, 2014

Submit a work plan acceptable to the Executive Officer to define the vertical and lateral extent of soil, soil vapor, groundwater, and indoor air pollution. The work plan should specify investigation methods and a proposed time schedule. Any additional on-site investigation work that may be needed should be included with this task. The work may be phased to allow the investigation to proceed efficiently, provided that this does not delay compliance.

5. **COMPLETION OF OFF-SITE REMEDIAL INVESTIGATION**

COMPLIANCE DATE: 100 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 4 WORK PLAN

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Off-Site Remedial Investigation Work Plan. The technical report should document the vertical and lateral extent of pollution down to concentrations at or below typical cleanup levels for soil vapor, groundwater, and indoor air quality.

6. **RISK ASSESSMENT WORK PLAN**

COMPLIANCE DATE: 45 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 3 REPORT

Submit a work plan acceptable to the Executive Officer for preparation of either a screening level evaluation or a site-specific risk assessment. The work plan shall include a conceptual site model that identifies pathways and receptors where site contaminants pose a potential threat to human health or the environment. If a screening level evaluation is selected, the work plan shall identify which screening levels will be used and demonstrate that they address all relevant pathways and receptors for the site. The Executive Officer may revise this date if needed.

7. **RISK ASSESSMENT COMPLETION REPORT**

COMPLIANCE DATE: 60 DAYS AFTER EXECUTIVE OFFICER APPROVAL OF TASK 6 WORKPLAN

Submit a technical report acceptable to the Executive Officer documenting completion of tasks identified in the Task 6, Risk Assessment Work plan. The report shall comprise either a screening level evaluation or a site-specific risk assessment. The results of this report will help establish acceptable exposure levels, to be used in developing remedial alternatives in Task 8.

8. **REMEDIAL ACTION PLAN INCLUDING PROPOSED CLEANUP STANDARDS**

COMPLIANCE DATE: 60 DAYS FOLLOWING EXECUTIVE OFFICER APPROVAL OF COMPLETION OF TASK 7 REPORT

Submit a technical report acceptable to the Executive Officer containing:

a. Summary of remedial investigation
b. Summary of risk assessment
c. Evaluation of the installed interim remedial actions

d. Feasibility study evaluating alternative final remedial actions
e. Recommended final remedial actions and cleanup levels
f. Implementation tasks and time schedule

The Remedial Action Plan must propose remedial work that has a high probability of eliminating unacceptable threats to human health and restoring beneficial uses of water in a reasonable time. An assessment of "reasonable time" shall be based on the severity of impact to the beneficial use (for current impacts) or the time before the beneficial use will occur (for potential future impacts).

This task may be subdivided to separately address on- and off-site groundwater, soil, and vapors. Each part could have a separate work plan and technical report.

Item d should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through d should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. § 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code section 25356.1(c), and State Water Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Item e should consider the preliminary cleanup goals for soil and groundwater identified in finding **12** and should address the attainability of background levels of water quality (see finding **11**).

9. IMPLEMENTATION OF FINAL REMEDIAL ACTION PLAN

COMPLIANCE DATE: ACCORDING TO THE SCHEDULE FROM TASK 8, APPROVED BY THE EXECUTIVE OFFICER

Submit a technical report, or reports if separate for soil, groundwater, and vapor, acceptable to the Executive Officer documenting installation and/or completion of necessary tasks identified in the Task 8 work plan. For ongoing actions, such as soil vapor extraction or in-situ remediation, the report should document start-up as opposed to completion.

10. 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 Regional Water Board or Executive Officer may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in Water Code section 13050(m).

2. **Good Operation and Maintenance (O&M)**: The dischargers 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.

3. **Cost Recovery**: The dischargers shall be liable, pursuant to Water Code section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional 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 over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with Water Code section 13267(c), the dischargers shall permit the Regional Water Board or its authorized representative:

    a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

    b. Access to copy any records required to be kept under the requirements of this Order.

    c. Inspection of any monitoring or remediation facilities installed in response to this Order.

    d. 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.

5. **Self-Monitoring Program**: The dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

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

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

8. **Uploading Documents to the GeoTracker database**: Electronic copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be uploaded to the State Water Board's GeoTracker database within five business days after submittal to the Regional Water Board. Guidance for electronic information submittal is available at: http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/

9. **Document Distribution**: An electronic and paper version of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the Regional Water Board, and electronic copies shall be provided to the following agencies and interested parties:

   a. Contra Costa County Health Services Department
   b. Hookston Station Parties
   c. Walnut Creek Manor Parties

   The Executive Officer may modify this distribution list as needed.

10. **Reporting of Changed Owner or Operator**: The dischargers shall file a technical report on any changes in contact information, site occupancy or ownership associated with the property described in this Order.

11. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the dischargers shall report such discharge to the Regional Water Board by calling (510) 622-2369.

    A written report shall be filed with the Regional Water Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the California Emergency Management Agency required pursuant to the Health and Safety Code.

12. **Periodic SCR Review**: The Regional Water Board will review this Order periodically and may revise it when necessary. The dischargers may request revisions and upon review the Executive Officer may recommend that the Regional 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 _____.

_____
Bruce H. Wolfe
Executive Officer

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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

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Attachments: Self-Monitoring Program
Location Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

MAYHEW CENTER, LLC,
AND DEAN DUNIVAN

for the property located at

3301-3341 VINCENT ROAD
PLEASANT HILL, CONTRA COSTA COUNTY

1. **Authority and Purpose**: The Regional 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 Regional Water Board Order No. *XX-XXX* (site cleanup requirements).

2. **Monitoring**: The dischargers shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses
MW-1A	SA	8260
MW-1B	SA	8260
MW-1C	A	8260
MPE-1	SA	8260
MPE-2	SA	8260
MPE-3	SA	8260
MPE-4	SA	8260
MW-20A	SA	8260
MW-20B	SA	8260
MW-21A	SA	8260
MW-21B	SA	8260

Future wells	TBD	8260

Note: Wells MW-20A, -20B, -21A, and 21B are Hookston Station wells. Sampling these wells will require an agreement with the Hookston parties.

Key: TBD = To be determined
SA = Semi-Annually
A = Annually
8260 = EPA Method 8260 or equivalent

The dischargers shall sample any new monitoring or extraction wells Semi-annually and analyze groundwater samples for the same constituents as shown in the above table.

Monitoring well gauging and sampling at this Site shall be coordinated with gauging and sampling at the adjacent Hookston Station site to the extent possible. In no case shall these data be collected more than one week apart. Groundwater samples shall be analyzed using the USEPA method 8260. The dischargers may propose changes in the sampling and analytical program; any proposed changes are subject to Executive Officer approval.

3. **Semi-Annual Monitoring Reports**: The dischargers shall submit semi-annual monitoring reports to the Regional Water Board no later than 30 days following the end of the quarter sampled (e.g., report for first quarter of the year due April 30). The first monitoring report shall be due on October 31, 2013. 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 their 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 final monitoring report each year.

      Groundwater elevations shall be measured from a surveyed point at each well established by a California licensed surveyor. The survey should use the same datum as the adjacent Hookston Station Site.

   c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map(s) 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. A graph and a table showing historical groundwater sampling results shall be included in the final monitoring 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. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

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

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

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

6. **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 Regional Water Board upon request.

7. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her 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.

8. **Uploading Reports to the GeoTracker database:** All monitoring reports and laboratory data shall be uploaded to the State Water Board's GeoTracker database within five business days of submittal to the Regional Water Board. An electronic copy and one paper copy of all reports shall be submitted to the Regional Water Board, and an electronic copy submitted to Contra Costa County, Health Services Department.

EXHIBIT B

ENVIRON

November 14, 2013

Via Email

Dyan C. Whyte
Assistant Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: **Comments on Tentative Order dated October 21, 2013**
Site Cleanup Requirements for Mayhew Center,
3301-3341 Vincent Road, Pleasant Hill, Contra Costa County

Dear Ms. Whyte:

The comments herein were prepared by ENVIRON International Corporation (ENVIRON), on behalf of Walnut Creek Manor, LLC (WCM) who owns the property located at 81 Mayhew Way, Walnut Creek, California that is situated adjacent to and immediately west (i.e., upgradient) of the Mayhew Center (MC) property located at 3301-3341 Vincent Road, Pleasant Hill, California. These comments respond to October 21, 2013 Tentative Order/Site Cleanup Requirements (TO/SCR) for the 3301-3341 Vincent Road property owned by MC prepared by the Regional Water Quality Control Board, San Francisco Bay Region (Water Board). Note that we previously provided comments in a letter dated July 25, 2013 regarding the June 24, 2013 original draft of the TO/SCR.

Our intention in submitting these comments remains to assure that the MC impact to WCM property is mitigated completely and without any additional delay as per already established legal requirements, and that the facts pertaining to the MC TO/SCR, as they pertain to WCM considerations, are accurate

We encourage the Water Board to consider and adopt the following comments into the final Order for the subject site.

Item 1. Site Location:

This item refers to a map that identifies the location of the MC property and other pertinent geographic features, including other properties.

We commented that for the June 24, 2013 draft TO, the map incorrectly depicted the location of "PCE source area" was misleading, incorrect, and oversimplified in that it appeared to indicate that the PCE source area is located both on WCM as well as MC. The current map remains as oversimplified and does not accurately indicate that MC is the sole source of PCE while WCM is not a source but is just the property that remains impacted by the MC source. We recommend using Figure 5 from the October 2008 Subsurface Investigation Report, Mayhew Center Site, prepared by AMEC Geomatrix, Inc. and found on the Water Board Geotracker site at http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/7874607920/SL0601341185.PDF).

An image of this figure, that identifies the locations of the PCE source areas on MC property, is provided as an attachment to this letter for convenience.

ENVIRON International Corp. 2200 Powell Street, Suite 700, Emeryville, CA 94608
V +1 510.655.7400 F +1 510.655.9517

environcorp.com

Item 2, Site History and Ownership, Paragraph 3

The TO/SCR's statement estimating the migration rate of PCE in the subsurface, i.e., "PCE velocity of 55 to 77 feet per year," cannot be validated by existing information. No specific data exists on flow rates for groundwater underlying MC, and even less information exists on contaminant migration rates. Reporting non-validated calculations like this in the TO/SCR may lead to unintentional bias that is used by other parties inappropriately. To avoid carrying on unsupported information, we suggest deleting the statement.

Item 3, Named Dischargers

We request that language be added to specifically state that WCM is not a discharger, so as to accurately represent the status of the WCM property in the TO/SCR.

Item 5, Hydrogeology

The TO/SCR indicates that the deeper water bearing zone is *hydraulically connected to the A-zone*. The TO/SCR does not, however, provide technical evidence supporting this claim and we are not aware of existing information or boring logs or tests used to make this determination. However, we remain concerned that the recent drilling of a large diameter (i.e., 10-inch diameter borehole) and construction of a long-screened, large diameter (i.e, 4-inch) well to at least 30 feet below ground surface by MC in the approximate area of the PCE source zone on MC property may provide a new conduit from the shallow PCE source area to the deeper zone. This new conduit may further exacerbate remediation efforts and allow PCE to further impact WCM property because of the effect of dispersion of PCE from areas of high concentration to areas of lower concentration and as influenced by surface water recharge along the planter strip.

Item 6, Remedial Investigation

The comments we provided in our July 25, 2013 letter on the June 2013 TO/SCR were not addressed by the Water Board in their October 21, 2013 TO/SCR and we provide them again herein as we remained concerned about a number of statements in the TO/SCR.

1. Although previous information may have suggested that the depth of remediation requiring treatment extends to about 16 feet, the construction of a large diameter well on MC within the PCE source zone and to a depth of 30 feet may have contributed to PCE mass moving vertically downward to below 16 feet bgs.
2. We are concerned that while this TO includes requirements to prevent further downgradient migration of PCE toward Hookston Station, we strongly recommend that the TO require PCE to be mitigated from further affecting WCM property. Because the source area of PCE on MC property has yet to be abated and concentrations of PCE are highest in this area, PCE will continue to migrate toward WCM through dispersion and continued recharge of water through the planter strip on MC. Further, the PCE impact to WCM from MC cannot be easily abated without first addressing the source of PCE on MC.
3. The statement that a "carport" covers a portion of the WCM property near the MC property line is not relevant to this TO for MC to remediate the affected area, and should be deleted. We know by firsthand account that WCM provided access and only requested that the carport structure, if it were to be removed by MC, be replaced by MC after the remedial work was completed.

The statement that the WCM property is a "secondary" source of PCE is not supported technically. There is only one source of PCE, and that is on MC property. WCM property has been impacted by the spread of PCE from the WCM source. Because the highest concentrations and mass of PCE

remains on MC, WCM cannot contribute "additional" mass back to MC property and increase mass on MC as its own source due to the concentration gradient which is directed from the MC source to WCM and other areas. We request that this statement be removed from the TO/SCR because MC remains the sole source of PCE to both upgradient and downgradient property.

Item 7, Interim Remedial Measures

The Water Board did not address our comments on the June 24, 2013 TO/SCR as contained in our July 25, 2013 letter.

- The statement that the currently approved Interim Remedial Measure (IRM) has not been implemented due to a dispute between the neighboring property owners (i.e., MC and WCM) is factually wrong and on behalf of WCM we request that this language be removed. The IRM has not been implemented solely due to delays and inaction by MC. I know directly that WCM provided access to MC and MC refused to implement the Water Board-approved IRM.
- The recent Multi-Phase Extraction (MPE) "pilot" tests, including the drilling and completion of large diameter, long-screened wells by MC in the PCE source zone – activities that were performed without full review and without Water Board-approved workplans may have resulted in, and continue to promote, deeper penetration of PCE into the subsurface and are thus impacting deeper water-bearing zones. These wells, which remain in the MCE source area and vicinity, provide a continuous conduit for PCE-impacted groundwater to move between water-bearing zones. This condition affects not just downgradient areas, but potentially upgradient areas because of dispersion (movement of chemical mass from areas of high concentration to low concentration). This activity is not consistent with the technical standard of practice, in addition to having been implemented without the benefit of a full technical review prior to implementation. Further, if PCE has migrated downward through these wells, the effects of dispersion (movement of chemicals from areas of higher concentration to areas of lower concentration) may be allowing PCE to further impact WCM property immediately west of the PCE source area and MC property.
- There is no indication, technical or otherwise at this point, that an alternative remediation method consisting of dual-phase extraction could achieve desired source removal at less cost, particularly on WCM property. No technical work plan, conceptual model, or cost table have ever been provided for review and discussion. WCM must be remedied to residential standards, not the commercial standards set for MC property. We believe it inappropriate for the Water Board to include a statement that MPE is a "viable method" without full vetting according to professional standards of practice. We reiterate that remedial methods must achieve residential standards of cleanup on WCM property; no information has ever been provided by MC that the so-called alternative would be capable of achieving the approved and Court-ordered remedial objectives.
- We do not disagree that dual-phase extraction is a reasonable contaminant extraction technique for many sites. We also do not dispute that this approach can remove contaminants from the MC property. However, the MC report on the MPE pilot test, prepared by SOMA Environmental Engineers (May 30, 2013) does not indicate that this approach can meet remedial objectives. The SOMA report notes the difficulty calculating the zone of influence from the extraction test wells and notes that not enough information exists to determine how long the extraction wells will need to be operated to attain clean-up standards. The approved IRAP, on the other hand, had a definitive schedule for completion and would have been complete by now if it had been implemented on time and as approved by the Water Board.
- We strongly disagree with the Water Board allowing MC to wait until March 31, 2014 to develop a revised Interim Remedial Action Plan (IRAP). An IRAP was developed in October 2012 and was approved by the Water Board. The continued delay not only delays the mitigation of the PCE

source area at MC, but also allows PCE to continually migrate to WCM property. More than four years has passed since MC was Court-ordered to mitigate the PCE source area; the continued delay exacerbates the problem.

- In any new IRAP plan prepared, the need to remediation to residential standards on WCM should be clearly stated.

Finally, responding to the Water Board's statement in Paragraph 1 of Section 7 that "groundwater flows from WCM to MC." While this may be a general case, the direction of ground water flow is not the issue; the issue is the direction of contaminant migration. Because the highest concentrations of PCE exist on MC property, contaminants migrate, not just by advection but also dispersion from areas of high mass and concentration to areas of low mass and concentration. Thus contaminant migration continues to be from MC to WCM property and we request that this condition be stated in the TO/SCR.

Item 11, Preliminary Cleanup Goals

Please add that clean up goals must include residential standards for mitigation of MC's contamination on WCM. WCM is a residential property and mitigation of the MC contamination in soil, groundwater, and soil gas must meet these requirements

Item 16, Public Hearing

We are not aware of the results from the so-called "public hearing" where "all comments pertaining to this discharge" were heard. In any case, because of the major delay and apparent radical delay in the remedial plan from MC, we don't believe that the public participation process has been fully completed.

B. Tasks

We remain concerned that the currently approved IRAP has been abandoned by MC without: (1) any discussion with or direction from the Water Board, nor (2) any review from WCM on whose property MC must perform and complete the remedial activities. Having been presented to the public and approved by the Water Board and subject to regulatory order for which MC is in violation, it would be improper to in any way condone non-compliance by the Discharger, MC.

We also remain concerned that the timeline for developing and implementing a credible and reliable remediation plan is too long considering that the Court-ordered cleanup was published 3 years ago in November 2010. The Water Board is finally ordering MC to act many years after MC was judged to be solely responsible for the PCE contamination on its and on WCM property. The Water Board appears to be re-starting the clock with this TO/SCR. While we agree with the concept and WCM has long requested the Water Board issue a 13304 Order, we do not agree with the limited scope or lengthy timeline for completing the limited requirements, which do not include the work outlined in the approved IRAP, which was focused on removing the harmful impacts to the WCM residential property, consistent with the Injunction Order and reasonable practice of protecting and addressing the most directly impacted adjacent property.

Self-Monitoring Program

We recommend that groundwater monitoring be conducted more frequently than at a semi-annual interval particularly in the first year following remedy implementation. Semi-annual monitoring may be appropriate following verification that the remedy has been successful, but that likely will not occur for several months or year following implementation. Very little continuous data exists for this site and the eventual inclusion of remedial actions will necessitate a more through and comprehensive

understanding of remedial performance and the impact of the fate and transport of the target compounds.

We also remain concerned that this monitoring program does not address the large diameter deep fully screened wells recently constructed on MC property, and the potential impact to the subsurface from these wells.

Thank you for your attention to the comments provided herein. We respectfully request that our proposed changes and revisions will be incorporated in a final Order/SCR for the MC site. Please contact the undersigned if you have questions or require clarification.

Sincerely,

Scott D. Warner, PG, CHG, CEG
Principal

cc: Mr. Ralph Lambert, Regional Water Quality Control Board, San Francisco Bay Region
Mr. Milt Eberle, Walnut Creek Manor
Mr. Brian Kelly, Duane Morris LLP

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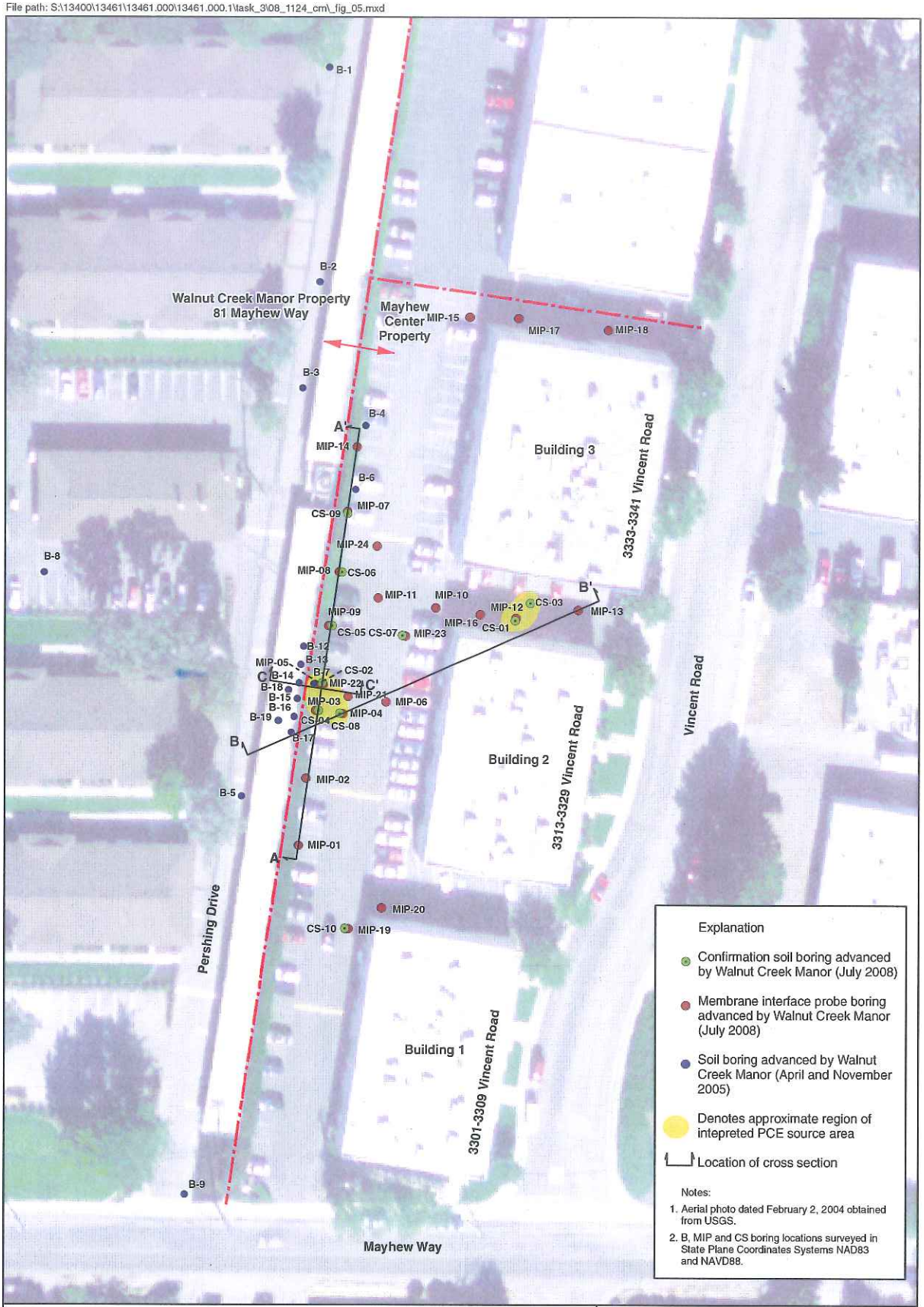


SITE VICINITY WITH BORING LOCATIONS
AND CROSS SECTION LOCATIONS
Mayhew Center
Pleasant Hill, California

By:	Date: 12/19/2008	Project No. 13461.000.1
AMEC Geomatrix		Figure 5

Appendix C

Response to Comments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESPONSE TO COMMENTS

TO: Dyan Whyte
Assistant Executive Officer

Date: November 26, 2013
File No. 07S0183 (RAL**)**

FROM: Ralph Lambert
Engineering Geologist

SUBJECT: Response to Comments on the Tentative Order for Mayhew Center, 3301-3341 Vincent Road, Pleasant Hill, Contra Costa County

This document provides Regional Water Board cleanup staff's response to comments received on the Revised Tentative Order (TO) for Site Cleanup Requirements for the subject site. An initial TO was sent out for comment on June 24, 2013. Based on responses from five parties to that TO, and internal discussion, the TO was revised. Due to a significant change in the named dischargers the Revised TO was distributed to the appropriate parties for comment on October 21, 2013. We received comments on the Revised TO from two parties as detailed below.

Brian Kelly Comments (attorney for Walnut Creek Manor, LLC):

The following response to comments substantively addresses all issues raised in Mr. Kelly's November 14, 2013, letter, as well as his July 25, 2013, letter which he incorporates by reference. Mr. Kelly also provided a redline version of the TO along with a letter from the Walnut Creek Manor consultant, Environ. The proposed revisions in the redline version are addressed in this Response to Comments under the appropriate topics in Mr. Kelly's comments and Environ's comments.

1) *Comment*: The TO should be expanded to protect and remediate the adjacent residential property, consistent with State Water Board Resolution No. 92-49 and to comply with the federal court order. The TO should force the Discharger to implement the October 2012 IRAP. The redline version attached to the comment letter proposes changes to paragraph 7 (Interim Remedial Measures) along these lines.

   Response: We disagree. Consistent with Resolution 92-49, the TO requires the Discharger to conduct investigation and cleanup and abatement, in a progressive sequence. As specified in Task 8, the Order states, "the Remedial Action Plan must propose remedial work that has a high probability of eliminating unacceptable threats to human health and restoring beneficial uses … ," language also reflecting the primary goals of Resolution No. 92-49. If Mayhew Center LLC (MC) is unable to access WCM property, there are feasible alternatives that will result in necessary cleanup and protection of human health and the environment.

There is no current risk to human health at WCM from the known PCE contamination. Of 75 soil samples collected at WCM, only two samples have slightly exceeded the screening level (ESL) for direct contact with soil for commercial workers. Both of these samples are located under pavement, under the carport where trash bins are stored, and immediately adjacent to the common property line. No soil sample on either side of the property line exceeds the ESL for construction or trench workers, i.e. those that would be most likely to dig through the asphalt. There are multiple soil samples that exceed the ESL for leaching from soil to drinking water. However, only one groundwater sample collected from WCM property exceeded the drinking water standard. This sample is well below the screening level for volatilization from groundwater to indoor air. Further, shallow groundwater is not used as a drinking water supply at WCM.

To the extent the comment letter suggests that the TO require compliance with the October 2012 IRAP, Water Code section 13360 prohibits the Regional Water Board from specifying a particular method of compliance. MC may choose to proceed with the October 2012 IRAP; this TO simply does not require it.

Litigation in federal court determined that MC and Dean Dunivan were responsible for the PCE contamination found at Mayhew Center and to Walnut Creek Manor. A judgment of $1.55 million was entered against the defendants MC, Mr. Dunivan, and Norma Beard (a prior land owner). Most of the money was put into an escrow account to be used for remediation. The Court issued what the comment letters refer to as an "Injunction Order" that requires certain actions by certain dates. The Regional Water Board was not a party to that litigation and is not bound by the Court's order. The Regional Water Board is charged with preserving and/or restoring the quality of water and the protection of human health, not enforcing a civil judgment. This Tentative Order fulfills that charge in a way that is not inconsistent with the goals of the Injunctive Order, and is consistent with the Water Code. It is unnecessary and inappropriate to incorporate the specific features of the Injunction Order into the TO.

2) *Comment:* The TO falsely characterizes why the IRAP has not been implemented. Erroneous statements in Section 7 concerning the "disputes between the property owners" should be removed.

Response: If there was no dispute, Regional Water Board staff believes the work described in the IRAP would be complete by now. Regional Water Board staff sent letters to both parties (MC and WCM) concerning access issues on May 31, 2012, and October 24, 2012. The October letter was issued in part in response to e-mails such as those dated October 10, 2012, between WCM and MC, where MC wrote, "*Refusing our structural access this afternoon precludes any survey before shoring work on MC tomorrow*." WCM's response included the statement, "*Until these issues are satisfactorily resolved, MC and its consultants cannot enter WCM property*." WCM had various requirements for access and restoration work that MC did not agree with; thus access was denied. The TO takes no position on who is to blame for the access dispute.

3) *Comment*: The TO contains inaccurate, incomplete and misleading statements specifically regarding the "source area" of PCE contamination, which may be misinterpreted as implying the WCM is a source of PCE. The redline version attached to the comment letter provides stylistic edits to the paragraph regarding the source area.

   Response: The commenter misunderstands the definition of "source area" as used in the TO. The TO defines the source area as "The area of impacted soil, having concentrations high enough to act as a continuing source…" of contamination to both the groundwater and soil gas. This is often referred to as "secondary source." The term "source area" is used to describe the soil with contaminant levels that should be remediated, not the origin of the contamination. Walnut Creek Manor is not named as a discharger in this Tentative Order.

   The comment also states that "there are no data to support that PCE exists in the soil at the WCM property to a degree that actually threatens to impact the groundwater under the WCM site." This is incorrect. PCE has been found in soil samples from WCM at up to 4.2 mg/kg. This is above the current Environmental Screening Level of 0.7 mg/kg for PCE in soil leaching to groundwater.

4) *Comment:* The TO should be amended to expressly state that WCM is not a discharger as determined by the Court.

   Response: We disagree. The only parties discussed as dischargers or potential dischargers in the TO are the current and past owners and operators of the Mayhew Center property. Since WCM is <u>not</u> an owner or operator of Mayhew Center there is no reason to include its name among those that are not considered as a discharger. No other non-owner or operator is discussed. See also response to Comment 1.

5) *Comment*: Delete the statements that ETI claims never to have used PCE and no record of PCE use by any tenant has been documented and that the mechanisms of release are not known.

   Response: We disagree. These statements remain as factually correct. Several former officers of ETI claimed in deposition that they never used PCE. Also, no records of PCE use have been found from any tenant of Mayhew Center. Walnut Creek Manor has not supplied or cited any contrary evidence. In addition to the fact that use of PCE is not documented, neither is there a record of a PCE spill, leak, or intentional dumping of PCE.

ENVIRON Comments (Consultant for Walnut Creek Manor, LLC):

1) *Comment:* The site map description of "PCE source area" is oversimplified and implies that WCM property may also be source of contamination. ENVIRON offered a replacement figure.

   Response: The location map correctly labels the area as "Areas of shallow impacted soil." The map is titled a location map and part of the intent is to identify surrounding

properties that are mentioned in the Order. None of those surrounding properties are identified in the proposed replacement map; therefore the proposed map is rejected.

2) *Comment:* Provide the basis for the estimated PCE velocity in groundwater. The redline version attached to the comment letter deletes the estimated PCE velocity.

Response: The velocity of a contaminant in water (*Vc*) is a factor of the hydraulic conductivity of the formation (*K*), the slope or groundwater gradient (*i*), the effective porosity of the formation (*n*), and the retardation factor for PCE in the aquifer (*R*): $Vc=Ki/nR$.

At the adjacent Hookston site aquifer tests were performed by ERM in 2006 and Tredwell & Rollo in 1993. The range of *K* for the A-zone from these tests was 2.3 to 23 ft/day. Based on field sampling data the well yield at Mayhew Center is greater than well yield at Pitcock Petroleum (located down gradient). Therefore, we assumed $K = 20$ ft/day for the calculations. The gradient (*i)* was calculated at several locations and times based on nearby Hookston wells; the estimate uses an average *i* of 0.0065. Porosity (*n*) is based on a typical literature value of 22%. *R* is a larger unknown based on an unknown distribution coefficient (Kd), but an *R* of 3.0 seems reasonable, based on literature and site conditions. Substituting these numbers into the formula above yields a contaminant velocity in groundwater of 72 ft/yr. The TO uses an estimate of 55 to 77 ft/yr, based on ranges of variables.

3) *Comment*: Add a sentence to Finding 3 (Named Dischargers) to the effect that WCM is not a discharger.

Response: See response to comment #3 from Brian Kelly.

4) Comment: Provide the basis for the statement in Site Hydrogeology that the deeper zone is hydraulically connected to the A-zone. The redline version attached to the comment letter proposes edits to text concerning the hydraulic connection between zones.

Response: This conclusion is based on data from nearby Hookston Station wells. The fact that both the A- and B-zones are impacted with PCE at Hookston wells MW-20A and MW-20B (located about 160 feet from Mayhew Center property) shows a hydraulic connection. Other Hookston cluster wells also show a similar hydraulic connection.

5) *Comment:* A recently installed 30-foot deep well with a 10" borehole may provide a conduit for PCE to deeper zones. This concern over "large diameter" and deep wells is expressed in several places in the redline version of the TO attached to the comment letter.

Response: While the recently-installed well does create a potential conduit to deeper groundwater zones, the risk is small and temporary. The 30-foot deep well extends about 10 feet below shallow groundwater (the A-zone). However, the bottom 10 feet of this well is described as lean clay or lean clay with sand and having medium plasticity. This

implies that risk of contaminating a deeper zone is low. Further, onsite cleanup activities required by the TO will significantly reduce shallow groundwater concentrations, thereby greatly reducing the potential for downward migration.

6) *Comment:* The TO should require PCE to be mitigated from further affecting WCM property. The comment also states that "…PCE impact to WCM from MC cannot be easily abated without first addressing the source of PCE on MC."

   Repose: We agree that the PCE needs to be remediated on MC property and that by doing so it will no longer impact WCM. The TO requires this remediation.

7) *Comment:* Delete reference to the carport.

   Response: The reference is descriptive only, and describes the physical surface conditions overlying shallow impacted soil that may act as a continuing source. The text remains unchanged.

8) *Comment:* Remove the statement that "the WCM property is a "secondary" source of PCE" from Finding 6 (Remedial Investigation).

   Response: There is no such statement in the referenced Finding. It does say that the impacted soil acts as a secondary source. Impacted soil is found on both sides of the property line. The next paragraph of the TO states that "Mayhew Center was the release location …." The text remains unchanged.

9) *Comment:* Remove the statement that the currently approved IRM has not been implemented due to an access dispute between MC and WCM; this statement is factually wrong.

   Response: We disagree. See Response to Mr. Kelly's Comment #2.

10) *Comment:* There is no technical data that an alternative remediation method, such as dual phase extraction, could achieve source removal at less cost. The cited pilot test report does not demonstrate that the Multi-Phase Extraction (MPE) can meet all remedial objectives and lacks information about the spacing of the proposed wells and how long it would take for remediation.

    Response: We agree. The MPE pilot test did demonstrate PCE mass removal, i.e. feasibility, but the pilot test was cut short due to lack of funding. The remaining questions concerning remediation method should be addressed in completing Task 1 of this TO. A feasibility study and remedial action plan are to be completed as part of the Order as Task 8, and should include supporting evidence and plans. The FS/RAP would be made available for public comment.

11) *Comment:* The commenter disagrees with proposed dates to develop a revised Interim Remedial Action Plan (IRAP) when one was already approved.

Response: The approved IRAP has not been implemented and the due date is past. The Order does not abandon the approved IRAP, but provides flexibility to perform cleanup if another effective way is demonstrated. This flexibility is necessary given the delays attributable to site access disputes between parties. Regional Water Board staff believes that the proposed schedule is optimistic but can be achieved with sufficient funding. The priority of the Regional Water Board is contaminant mass removal from the area that is acting as a secondary source.

12) *Comment:* Finding 7 (Interim Remedial Measures) should include remediation at WCM to residential standards. Similar comments are repeated elsewhere, often referencing a court Injunction Order.

Response: Finding 7 of the TO is a finding, not a work task, and no remedial goals are included in Finding 7. However, Finding 12 states that, pending site-specific cleanup levels, preliminary cleanup goals may be used, including "applicable screening levels such as the …ESLs." Selecting final cleanup standards comes under Task 8, which states that the RAP "must propose remedial work that has a high probability of eliminating unacceptable threats to human health and restoring beneficial uses …." See also the response to Mr. Kelly's comment #1 concerning proposed inclusion of language and requirements from the Injunction Order.

13) *Comment*: Add a statement that contaminant migration is from MC to WCM property.

Response: Contamination can move both directions across the property line. It can move via groundwater flow (advection) from the up-gradient property (WCM) to the down-gradient property (MC). It can also flow from areas of higher concentration to areas of lower concentration via dispersion. Text in Finding 7 has been revised to reflect this information.

14) *Comment:* We are not aware of any public hearing concerning this Order (Finding 18).

Response: As stated in the cover letter for this TO, the public hearing will take place on December 11, 2013. The text in Finding 18 reflects what will appear when the adopted order is prepared.

15) *Comment:* The current IRAP has been abandoned by MC without discussion or direction from the Regional Water Board or review by WCM, and that the TO is not in compliance with the Court-ordered cleanup. Also, the time frame is long.

Response: Comment noted. The TO does not abandon the approved IRAP, but provides flexibility to perform cleanup if another effective way is demonstrated. This flexibility is necessary given the delays attributable to site access. MC discussed their pilot test plans with Regional Water Board staff but did not provide any work plans and no written approvals were provided to MC.

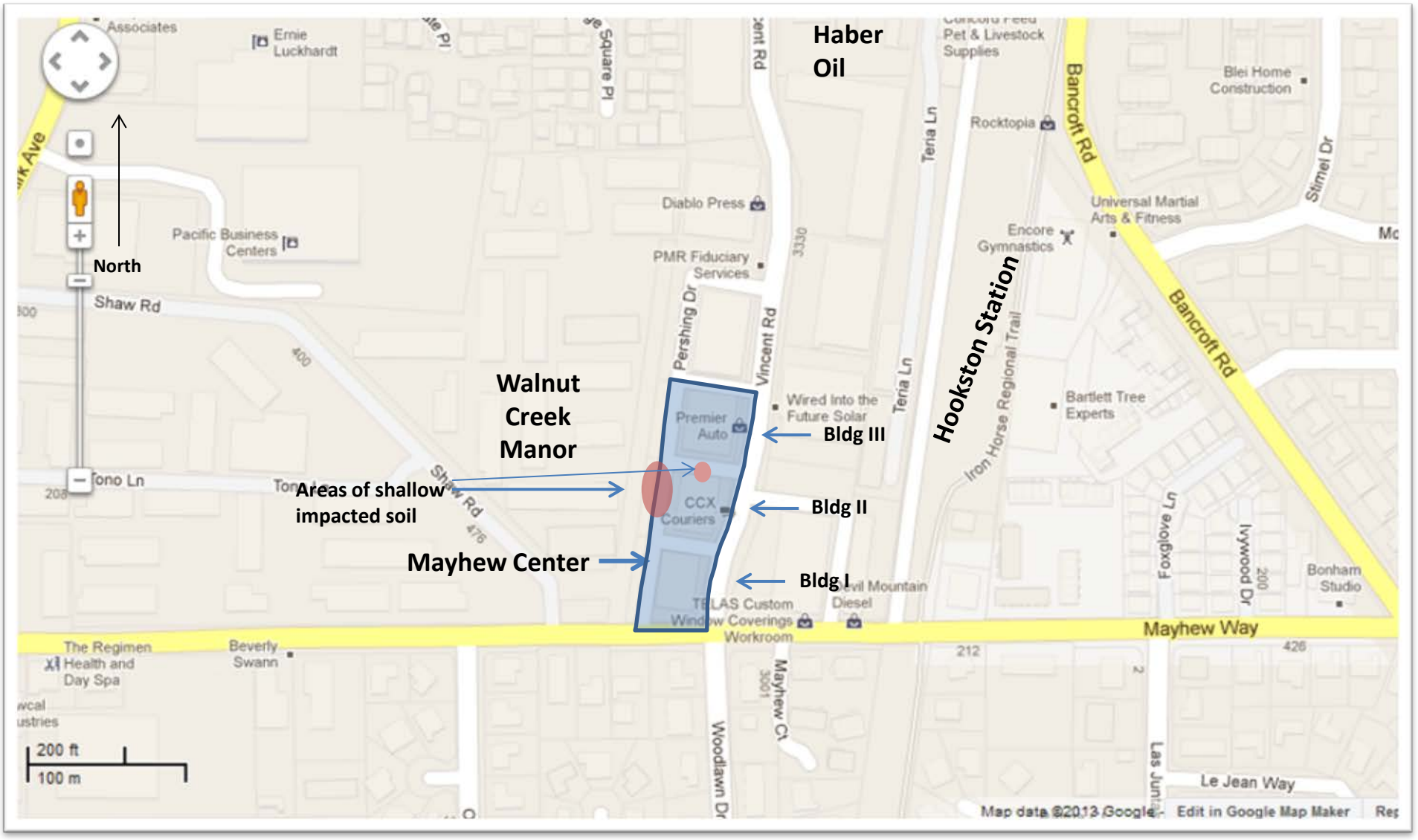
We agree that it is important to implement remediation at this site. The October 2012 IRAP has not been implemented as required; this Order is in part a response to the failure to implement the IRAP. Since the timeframe established by the Federal Court for cleanup is past, there is nothing that can be done now to change that situation. See response to Mr. Kelly's Comment #1 for more on the Court Order.

16) *Comment*: The sample frequency of the self-monitoring program is not appropriate, and the monitoring program does not address the "large diameter deep fully screened wells" on the MC property and their potential impact to the subsurface.

Response: The self-monitoring program is appropriate for current conditions. As new wells are installed or as remediation begins, then the sampling frequency may be adjusted. This is indicated in the table in the self-monitoring program where the sampling frequency for new wells is listed as "To be determined." For the current on-site wells listed in the table there is no pending decision that requires more frequent sampling. With regard to the "large diameter deep fully screened wells," the monitoring program specifies wells, sampling frequency, and analysis and is intended to detect changes (increases or decreases) resulting from site activities.

Appendix D

Location Map



Mayhew Center - Location Map