

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT
(Michelle Rembaum-Fox)
MEETING DATE: March 14, 2007

ITEM: 8.D

SUBJECT: Taube-Koret Campus for Jewish Life, for the property located at 901 San Antonio Road, Palo Alto, Santa Clara County – Adoption of Site Cleanup Requirements.

CHRONOLOGY: August 1989 - Site Cleanup Requirements adopted
August 1993 - Site Cleanup Requirements amended
February 1996 - Site Cleanup Requirements adopted
June 1999 - Revised Site Cleanup Requirements adopted
August 2003 - Amended Site Cleanup Requirements issued

DISCUSSION: The 901 San Antonio Road site is currently owned by the Taube-Koret Campus for Jewish Life (Campus), which plans a mixed-use redevelopment on the currently vacant land. The approximately eight-acre site is located at the intersection of San Antonio and East Charleston Roads in Palo Alto (see Appendix C map). The site was once part of a much larger site including the adjacent 3963 and 3977 Fabian Way property and other properties to the north. Board staff are recommending separate Site Cleanup Requirements for the 901 San Antonio Road and the Fabian Way sites, due to different issues presented at each.

The former Ford Aerospace Corporation used and released chlorinated solvents, primarily tetrachloroethene (PCE), along the Site's property line, which has contaminated both soil and groundwater beneath the Site. The groundwater contamination plume extends from the Fabian Way property beneath the Site. Contaminated soil on the Site has been cleaned up to the Board's Environmental Screening Levels. The approved final groundwater cleanup plan for the Fabian Way site addresses PCE groundwater cleanup for both the Fabian Way and 901 San Antonio Road sites. Campus has prepared a Risk Management Plan to address potential vapor intrusion into indoor air from residual groundwater contamination, and Board staff has approved that plan.

The Site is also impacted by solvent-contaminated groundwater originating from several upgradient locations. One source property (Advalloy) has been identified but there may be others. The Board adopted Site Cleanup Requirements for Advalloy in 1990 and revised those in 1995, requiring investigation and cleanup. Advalloy is currently conducting in-situ cleanup to address its groundwater pollution.

The Revised Tentative Order requires Campus to implement the staff-approved Risk Management Plan. Implementation will involve a package of design, operation, and monitoring measures to prevent vapor intrusion into indoor air.

We received minor comments on the Revised Tentative Order when it was originally circulated for public comment (see Appendix B), and have revised it as appropriate to address requested changes. We expect this item to remain uncontested.

**RECOMMEN-
DATION:**

Adopt the Revised Tentative Order (Appendix A).

File No: 43S0977(mrf)
Appendices: A. Revised Tentative Order
B. Correspondence
C. Site Location Map

Appendix A - Revised Tentative Order

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED TENTATIVE ORDER

ADOPTION OF SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER NO.99-043 and ORDER NO. R2-2003-0071 FOR:

TAUBE-KORET CAMPUS FOR JEWISH LIFE

for the property located at

**901 SAN ANTONIO ROAD, PARCEL 2
PALO ALTO
SANTA CLARA COUNTY**

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

1. **Site Location:** This 8.162-acre Site (Parcel 2), the subject property covered by this Order (hereinafter the Site), is located at 901 San Antonio Road in an industrial and mixed use area in the city of Palo Alto (Figure 1). It is bounded by the 901 San Antonio Road (Parcel 1) property on the north, the 3963 and 3977 Fabian Way property to the west, East Charleston Road to the south, and San Antonio Road to the east. San Francisco Bay is located approximately $\frac{3}{4}$ -mile to the north-northeast.
2. **Site History:** The Site is currently owned by the Taube-Koret Campus for Jewish Life (TKCJL or the discharger), which purchased the property from Sun Microsystems in June 2002. The Site was once part of a much larger site owned by Ford Aerospace Corporation from 1959 to 1990. Sun Microsystems purchased the Site from Ford Aerospace Corporation in 1988. Loral Aerospace Holdings, Inc. purchased the assets of Ford Aerospace Corporation in 1990 and was renamed Space Systems/Loral.

On June 27, 2003, a final parcel map was recorded with the County of Santa Clara that subdivided the former 12.162 acre site owned by TKCJL into two smaller parcels: a 4-acre parcel (Parcel 1) and an 8.162 acre parcel (Parcel 2). Parcel 2 is the subject of this Order. TKCJL is proposing housing and commercial redevelopment at the Site. The City of Palo Alto has approved of the redevelopment project.

3. **Named Discharger:** TKCJL is named as discharger because it is the current property owner of the Site. 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 Board will consider adding that party's name to this Order.

4. **Regulatory Status:** This Site has been subject to following Board orders.
- Site Cleanup Requirements (Order No. 89-137) adopted August 16, 1989.
 - Amendment to Site Cleanup Requirements (Order No. 93-091) adopted August 18, 1993.
 - Site Cleanup Requirements (Order No. 96-023) adopted February 28, 1996.
 - Revised Site Cleanup Requirements (Order No. 99-043) adopted June 16, 1999.
 - Amendment to Site Cleanup Requirements (Order No. R2-2003-0071) issued August 8, 2003.

By private agreement, Ford Motor Company assumed responsibility from Loral Aerospace Holdings, Inc. for compliance with an earlier order (Order No. 89-137). This was described in a letter to the Board from Loral Aerospace Holdings, Inc., dated April 22, 1991. Since April 1991, Ford Motor Company has been the sole entity communicating with Board staff on behalf of Space Systems/Loral on matters related to site investigation and cleanup at the Site and to off-site affected properties.

5. **Site Hydrogeology:** The Site is located in the San Jose sub-area of the South Bay Groundwater Basin. This area is characterized by a thick alluvial sequence, formed through deposition by streams descending from the Santa Cruz Mountains to the west and south, and is underlain by sediments of the Santa Clara Formation. The depth to groundwater in these upper, coalescing alluvial fans is approximately six to eight feet. Detailed cross-sections of the Site soil conditions are contained in the Subsurface Investigation Report, dated June 2004, prepared by Geomatrix on behalf of Ford Motor Company. Shallow stratigraphy at the Site is well characterized and consists of interbedded coarse and fine-grained units. Depth intervals comprising predominantly coarse-grained soils (water-bearing units), have been designated from shallowest to deepest as the A-, B-, and C-Zones underneath the Site. Previous investigations have designated the A-Zone as two relatively continuous sand and gravel layers generally encountered between 5 and 30 feet bgs at depth intervals from 6 - 10 feet and 25 - 30 feet bgs. The underlying B-Zone has been divided into three subunits: (1) the B1-Zone, generally encountered between 22 and 40 feet bgs; (2) the B2-Zone, generally encountered between 31 and 50 feet bgs; and (3) the B3-Zone, generally encountered between 41 and 60 feet bgs. The C-Zone has been encountered between 80 and 90 feet bgs. The regional groundwater gradient is northeast toward San Francisco Bay. However, Site data provided by others indicates that the local groundwater gradient is toward the north.
6. **Remedial Investigation:** Starting in 1987, several investigations and groundwater monitoring events have taken place at the Site and adjacent properties. The discharger has also conducted remedial investigations as part of a risk assessment.

The highest tetrachloroethene (PCE) concentrations in groundwater were reported in samples collected beneath the Site, immediately adjacent to the western Site property boundary (Figure 1). PCE affected soil and groundwater beneath the Site have been

associated with historical discharges of PCE from the 3963/3977 Fabian Way Site. The results of the groundwater samples from on-site wells have been reported to contain PCE concentrations as high as 31,000 micrograms per liter ($\mu\text{g/l}$) in Well GCW-14 (fourth quarter 2005); for reference, the MCL for PCE is 5 $\mu\text{g/l}$.

TCE has been documented in groundwater beneath much of the Site. TCE concentrations as high as 72,000 $\mu\text{g/l}$ (CPT A-4, 39.5-40.0 feet, March 2004) have been reported; for reference, the MCL for TCE is 5 $\mu\text{g/l}$. Monitoring wells installed by TKCJL in June 2006 confirmed the off-site TCE Plume(s) as reported in samples from monitoring well MW-01B3 (34,000 $\mu\text{g/l}$) at the Site's southern boundary. To date, the full extent of TCE in groundwater has not been determined. Another offsite TCE source(s) has impacted the northwest area of the Site. This source(s) is associated with detections of Freon 113, also from an upgradient source.

The remedial investigation for risk assessment purposes is complete; however, if additional VOCs (related to the discharge from the 3963/3977 Fabian Way property) are found in soil above Board 2005 Environmental Screening Levels for Protection of Groundwater and Dermal Contact during redevelopment of Parcel 2, additional remedial investigations, risk assessment, cleanup, and risk management may be required by the named dischargers of that Site under a separate Order (Order No. XX-XXXX), or other appropriate regulatory actions.

7. **Adjacent Sites:** As discussed in Finding 6, there are at least three off-site VOC sources affecting the Site, and there is known contamination on the adjacent properties. The PCE release from the 3963/3977 Fabian Way Site has affected the Site. Freon 113 and TCE have also affected much of the Site. The Board adopted Site Cleanup Requirements for 3963/3977 Fabian Way (Order No. XX-XXXX).

In May 2006, Ford Motor Company submitted the Final Groundwater Cleanup Plan, on behalf of the dischargers for the 3963/3977 Fabian Way Site. The final cleanup measures for groundwater include: vadose zone soil excavation to remove residual VOCs in vadose zone soil which could potentially continue to affect shallow groundwater quality; partial source zone remediation to mitigate residual PCE in saturated soil and increase the source attenuation rate; and a permeable reactive barrier (PRB) composed of zerovalent iron downgradient of the 3963/3977 Fabian Way (Building 7 and 8) source zone near and along the northern property boundary of the Site (Parcel 2). The Final Cleanup Plan also consists of temporary treatment and disposal of groundwater extracted by the downgradient 3925 Fabian Way (Building 5) basement dewatering sump, as described in Finding 8. Continued monitoring of on-site and off-site monitoring wells was proposed to evaluate the effectiveness of this cleanup plan. Board staff approved the Final Groundwater Cleanup Plan on June 22, 2006.

There are other nearby upgradient facilities associated with the use of similar VOCs. The former Advalloy facility, located immediately upgradient of the Site at 844 East Charleston Road, is considered a source of chlorinated solvents (primarily TCE) in groundwater affecting

much of the Site. The Board adopted Site Cleanup Requirements for Advalloy in 1990 and revised these requirements on August 23, 1995, requiring investigation and cleanup at the former Advalloy site as appropriate. Monitoring well data indicate that groundwater pollution from the Advalloy site is impacting the Site. Advalloy is currently conducting in-situ interim remedial measures to address the groundwater pollution. The northwest area of the Site is affected by a Freon 113 and TCE discharge of unknown origin.

8. **Interim Remedial Measures:** Ford Motor Company performed extensive interim remedial actions that have significantly reduced soil and groundwater contamination both on-site and off-site. A basement dewatering system beneath Building 5, located on the downgradient Space Systems/Loral property at 3825 Fabian Way, has extracted groundwater continuously at flow rates ranging between 50 and 80 gallons per minute since the mid-1960s. Ford Motor Company and Space Systems/Loral are presently conducting hydraulic containment of the PCE impacted groundwater with the basement dewatering sump located at Building 5 of the 3825 Fabian Way property. Extracted water is being treated by granular activated carbon adsorption, and discharged under a NPDES permit. Groundwater modeling suggests that the extraction of groundwater from beneath Building 5 has been shown to effectively capture PCE, and also removes and treats part of the Freon 113 and TCE impacting groundwater at the 901 San Antonio Site.

In 1996, the extent of VOCs, primarily PCE, in soil along the boundary of the 3963/3977 Fabian Way property and the Site was defined and remediated as an interim remedial measure (IRM) by Ford Motor Company. The IRM involved excavation of VOC-affected soils for ex-situ treatment using a low-temperature thermal desorption process. Approximately 5,700 cubic feet of vadose zone soil was removed, treated and backfilled into the excavation area. These actions were approved by the Board.

In 2006, Ford Motor Company conducted additional interim soil remedial measures to minimize the downgradient migration of PCE from the 3963/3977 Fabian Way property and the Site. Approximately 1,008 cubic yards of vadose zone soil from the Site's western property line area (source zone) was excavated and disposed of off-site. In-situ bioremediation of source zone soil and groundwater impacted by PCE discharging at the 3963/3977 Fabian Way property was also conducted. Additionally, soil impacted by PCE was removed in the southwestern area of the Site. All PCE affected soil has been cleaned up to appropriate Board soil screening levels.

9. **Environmental Risk Assessment:** A Human Health Risk Assessment for the Site, dated June 5, 2006, was prepared by Geosyntec Consultants on behalf of TKCJL. The risk assessment was a development-specific human health risk assessment that considered risk reduction by introduced design elements that serve as engineering controls and institutional controls. Engineering controls and institutional controls are requirements contained in a Risk Management Plan as discussed in Finding 10.

As part of the redevelopment activities, a baseline risk assessment evaluated the hypothetical single-family residential scenario assuming unrestricted land use over areas of maximum VOC concentrations. The cumulative carcinogenic risks to the hypothetical on-site resident from the three exposure media (vadose zone soil, soil gas, and groundwater) exceeded an increased chance of one in one million of developing cancer over a lifetime (1×10^{-6}). While direct contact with soils was considered in the Human Health Risk Assessment as a potential pathway of concern for hypothetical future users, that pathway is no longer considered a concern because Site soils were remediated to Executive Officer-approved screening levels protective of direct contact. The vapor migration to indoor air from several VOCs detected in soil gas and groundwater is a potential pathway of concern for future users. Due to the vapor migration risk that will be present at the Site pending full remediation of Site groundwater, engineering controls and institutional constraints will be required to reduce on-site exposure to acceptable levels.

10. **Risk Management Plan:** A Risk Management Plan (RMP) for the proposed redevelopment of Parcel 2, dated June 2006, was prepared by Geosyntec Consultants on behalf of TKCJL. Board staff approved the RMP after public comment on June 22, 2006. The RMP specifies measures that will be implemented by TKCJL in the event and as part of the redevelopment of the property, to eliminate vapor intrusion into future buildings. The RMP includes the following engineering and institutional controls:
 - Podium parking with continuously operating mechanical ventilation beneath residential units and day care facilities;
 - Sub-slab vapor barriers beneath all occupied structures;
 - Passive vapor extraction system beneath all podium parking areas (underlying all residential units and daycare facilities);
 - Active vapor extraction system beneath the slab-on-grade commercial areas;
 - Vapor migration reduction elements in elevator shafts and utility trenches;
 - Ongoing sub-slab vapor monitoring beneath both podium parking/residential areas and slab-on-grade residential areas;
 - Quarterly indoor air sampling in the podium parking garage for the first year following development;
 - Ongoing groundwater monitoring;
 - A contingency plan for operation of an active vapor extraction system, if necessary, beneath the podium parking/residential areas;
 - A deed restriction with land use restrictions that require implementation of the RMP and prohibit groundwater use; and
 - Financial assurances.

11. **Basis for 13304 Order:** California Water Code Section 13304 authorizes the 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. Improper implementation of the Risk Management Plan would create a nuisance.

12. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the 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.
13. **CEQA:** This action is an order to enforce the laws and regulations administered by the 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.
14. **Notification:** The Board has notified the discharger 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.
15. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall 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 which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
2. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. RISK MANAGEMENT PLAN

1. **Implement Risk Management Plan:** The discharger shall, as a condition of its development of the property in accordance with its proposed development plans, implement the Risk Management Plan as described in Finding 10 according to the time schedule contained in Section C of this Order.

C. TASKS

1. **ENGINEERING DESIGN REPORT AND CONSTRUCTION QUALITY ASSURANCE PLAN**

COMPLIANCE DATE: 60 days before commencement of construction of redevelopment project

Submit a report acceptable to the Executive Officer that includes a detailed engineering design report regarding the vapor barrier, sub-slab vapor extraction system, and sub-layer vapor monitoring, and a construction quality assurance plan to provide a formal mechanism to monitor the quality of construction of the engineered vapor barrier and extraction system, in accordance with the approved RMP.

2. **RISK MANAGEMENT PLAN IMPLEMENTATION REPORTING**

COMPLIANCE DATE: 60 days before commencement of construction of redevelopment project (initial report) and 30 days after each calendar quarter (subsequent reports)

Submit quarterly progress reports acceptable to the Executive Officer documenting implementation of RMP measures. These reports should also describe the status of project construction and schedule for project occupancy.

3. **PROPOSED INSTITUTIONAL CONSTRAINTS AND FINANCIAL ASSURANCE**

COMPLIANCE DATE: Prior to the sale of any residential or commercial units

Submit a technical report acceptable to the Executive Officer documenting procedures to be used by the discharger to: 1) Prevent or minimize human exposure at the Site to impacts from soil and groundwater contamination emanating from the Site prior to meeting cleanup standards. Such procedures

shall include a deed restriction prohibiting the use of shallow groundwater as a source of drinking water at the Site, as specified in the RMP; and 2) Establish and maintain a trust account in a form acceptable to the Executive Officer for the purpose of funding any post-construction RMP obligations as specified in the RMP. Proposed procedures shall be consistent with the approved RMP. Proposals for further modification may be included in the annual reports in the attached Self-Monitoring Program. Regarding item 1 (deed restriction), should development not proceed, a deed restriction will still be required.

4. **IMPLEMENTATION OF INSTITUTIONAL CONSTRAINTS AND FINANCIAL ASSURANCE**

COMPLIANCE DATE: 60 days after Executive Officer approval

Submit a technical report acceptable to the Executive Officer documenting that the required deed restriction has been recorded and the trust account has been established and funded in accordance with the requirements of the RMP.

5. **EVALUATION OF NEW HEALTH CRITERIA**

COMPLIANCE DATE: 90 days after requested
by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved RMP of revising one or more cleanup standards in response to revision of drinking water standards, maximum contaminant levels, or other health-based criteria.

6. **EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: 90 days after requested
by Executive Officer

Submit a technical report acceptable to the Executive Officer evaluating the effect on the approved RMP of new technical information. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved RMP.

7. **Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the

discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

D. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, disposal or risk management (as described in the RMP set forth in Finding 10 above) of polluted soil or groundwater or the effects thereof, shall not create a nuisance as defined in California Water Code Section 13050(m).
2. **Good O&M:** The discharger 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 discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the 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 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 discharger 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 California Water Code Section 13267(c), the discharger shall permit the 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 discharger.

5. **Self-Monitoring Program:** The discharger 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 Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g., temperature).
8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:
 - a. City of Palo Alto
 - b. County of Santa Clara
 - c. Santa Clara Valley Water District

The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in the identity of the owner or operator of the property described in this Order.
10. **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 discharger shall report such discharge to the Board by calling (510) 622-2369 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the 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 Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Rescission of Existing Orders:** This Order supersedes and rescinds Order No. 99-043 and Order No. R2-2003-0071.
12. **Periodic Order Review:** The Board will review this Order periodically and may revise when necessary.

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 _____.

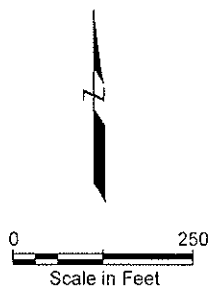
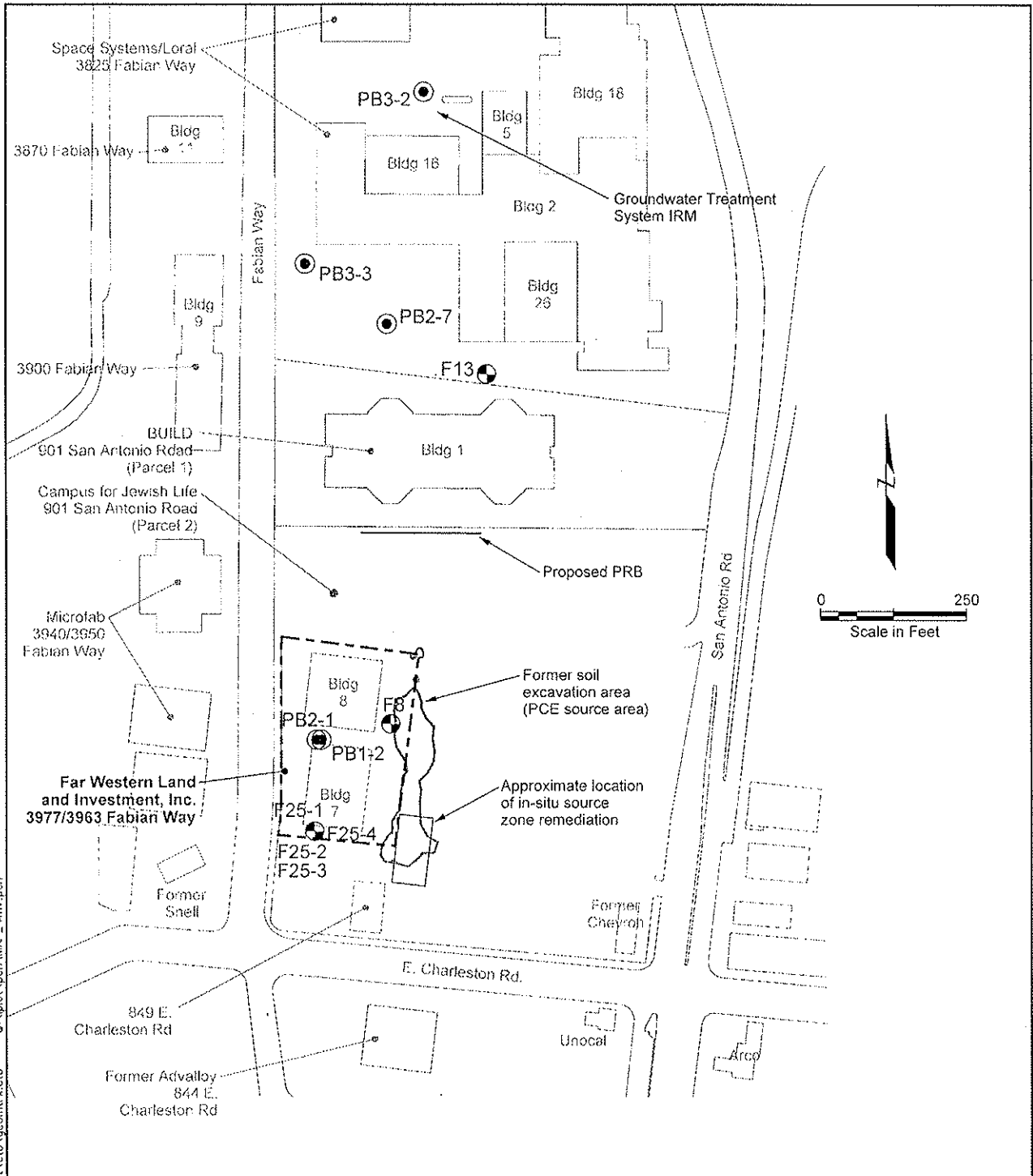
Bruce H. Wolfe
Executive Officer

=====

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

=====

Attachments: Site Map
Self-Monitoring Program



S:\3300s\3311\3311.007\Task_o\fig_01.dgn
 O:\pilot\pen\MAP_4.rvt.pen
 O:\pilot\ctb\geomtr.ctb
 swesels
 \\.O.AKPENTIN\Spdash_hold

EXPLANATION

- F4 Approximate location of project monitoring well
- PB3-2 Approximate location of project piezometer
- Approximate location of property lines

<p>SITE PLAN 3977 and 3963 Fabian Way and Nearby Properties Palo Alto, California</p>		
By:	Date: 08-nov-2006	Project No. 3311
Geomatrix		Figure 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

TAUBE-KORET CAMPUS FOR JEWISH LIFE

for the property located at

**901 SAN ANTONIO ROAD, PARCEL 2
PALO ALTO
SANTA CLARA COUNTY**

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program (SMP) is intended to document compliance with Board Order No. XX-XXX (Site Cleanup Requirements).
2. **Monitoring:**
 - a. The discharger shall measure groundwater elevations semi-annually in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-01A	SA	8260	MW-01B1	SA	8260
MW-01B3	SA	8260	MW-02A	SA	8260
MW-02B1	SA	8260	MW-02B2	SA	8260

Key: SA = Semi-Annually (First and Third Quarter) 8260 = EPA Method 8260 or equivalent

- b. The discharger shall sample and measure water levels at any new monitoring wells semi-annually, and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.
 - c. The discharger shall monitor soil vapor and garage air quarterly in accordance with Section 5.3 and Appendix F of the approved RMP. The discharger shall sample garage air above areas with passive extraction upon construction completion for a period of one

year. Following installation of the sub-slab vapor extraction system, monthly sub-slab vapor sampling shall be conducted for a period of one year for both passive and active vapor extraction areas. The discharger may propose changes in the monitoring; any proposed changes are subject to Executive Officer approval.

3. **Monitoring Reports:** The discharger shall submit semi-annual groundwater monitoring reports to the Board no later than 30 days following the end of the sampling period (e.g., first report due April 30, and second report due October 31). The discharger shall submit monthly soil vapor monitoring reports to the Board no later than 7 calendar days following the end of the calendar month. The discharger shall submit quarterly garage air monitoring reports to the Board no later than 7 calendar days following the end of the quarter. The reports shall include:
 - a. **Transmittal Letter:** The transmittal letter shall discuss any violations of any measures contained in the RMP during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the dischargers' principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
 - b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the second semi-annual report each year.
 - c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the second semi-annual 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. **Soil Vapor/Garage Air Monitoring Results:** Soil vapor and garage air monitoring results shall be presented in tabular form, and if possible graphical form. The report shall discuss trends over time and shall compare sampling results with relevant screening levels.
 - e. **Status Report:** The semi-annual reports shall describe relevant work completed during the reporting period (e.g., groundwater, soil gas/vapor, and air monitoring) and work planned for the following reporting period.
4. **Financial Assurance Reporting:** The discharger shall submit financial assurance reports in accordance with Section 5.2 of the approved RMP following completion of the vapor

monitoring system. The discharger shall submit financial assurance reports to the Board no later than 30 days following the end of the calendar year. The reports shall confirm the continued funding of the trust account, and shall describe any expenditures from the trust account and any need to replenish the trust account to maintain a \$100,000 balance, and report the status to the Executive Officer.

5. **Violation Reports:** If the discharger violates requirements in the SMP or the RMP, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. 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.
6. **Other Reports:** The discharger shall notify the 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.
7. **Record Keeping:** The discharger 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 Board upon request.
8. **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 discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

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

Bruce H. Wolfe
Executive Officer

Attachments: Monitoring Well Location Map

Appendix B - Correspondence



Environmental Quality Office
Environmental and Safety
Engineering

February 12, 2007

Mr. Bruce Wolfe, Executive Officer
California Regional Water Quality Control Board,
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Request for Modifications to Tentative Order for Site Cleanup Requirements
for the Property Located at 901 San Antonio Road, Parcel 2,
Palo Alto, Santa Clara County

Dear Mr. Wolfe:

In response to your January 12, 2007 letter we take this opportunity to submit these comments with respect to the subject Tentative Order. We request that these comments be included in the administrative record for these proceedings.

Important deletions, additions and other changes have been made to the administrative draft which we believe help considerably to clarify and provide additional important regulatory guidance for the implementation of the Order's Site Cleanup Requirements. We have the follow remaining comments for your consideration with respect to this Tentative Order:

Finding No. 4 – This paragraph has been expanded to reference several Board orders that the Site "was subject to". However, the NPDES permit adopted August 15, 1990 is not on, nor is it directly related to this Site. It is adopted with respect to groundwater extraction and discharge on an adjoining property. We request that reference to this order be deleted.

Finding No. 6 – We agree with most of the changes to this finding. However, we request that a change be made in the last paragraph of this finding. This paragraph provides that if certain specified VOCs are found on the Site, additional measures may be required of the named dischargers under the separate Fabian Way order. We request that this sentence be changed to provide that if the specified VOCs are discovered, then "*additional regulatory measures may be required by the Board.*" We make this request to provide the Board broader regulatory measures to fit whatever circumstances may arise, and not be limited to the "named dischargers" under separate order, as is stated in the Tentative Order.

Finding No. 8 – We request that language in the first sentence of this paragraph, "*acting on behalf of the dischargers for the adjacent 3825, 3963 and 3977 Fabian Way properties*" be deleted. This reference is unnecessary. We believe that it is only necessary to state that Ford performed the remedial actions.

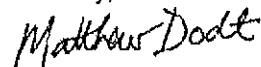
Finding No. 9 – This finding addresses environmental risk assessment. As you are aware, direct contact with soils containing PCE is a concern with respect to this Site. The third sentence of the second paragraph of this finding addresses this concern. We request that the following sentence be substituted for the fourth sentence of this paragraph: "*Direct contact with soils containing PCE is no longer a potential pathway of concern for hypothetical future users because Site soils were remediated to Board-approved screening levels protective of direct contact.*" We believe that this statement more accurately addresses the issue and is similar to language suggested by TKCJL in their previous comments.

Prohibitions – We request that the following prohibition be added: "*The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.* We note that this prohibition is taken from staff's model order language and would address any additional discharges or degradation related to activities associated with future activities on the Site, especially with respect to below ground construction, including utilities, that could result in transport of waste.

Task C.3 – This task requires submission of a deed restriction. We request that the language specifically state that the deed restriction be submitted "*as specified in the RMP.*" This task also requires a trust account to be submitted as specified in the RMP. The deed restriction language should contain the same requirement in order to incorporate RMP specifications for the deed restriction.

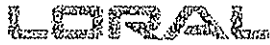
With the above changes, we request that the Tentative Order be issued or submitted to the Board for adoption without further changes.

Sincerely,



Matthew Dodt
Principal Facility
Environmental Control Engineer

Cc: Stephen Hill, Anders Lundgren, Michelle Rembaum-Fox, RWQCB
George Markulis, Space Systems/Loral Inc.
Jeff Farrar, Far Western Land & Investment Co., Inc.
Shelley Hebert, Campus for Jewish Life
Todd Arris, Sares Regis Group of Northern California
Nancy Bice, GeoSyntec Consultants
David Cooke, Allen Matkins Leck Gamble Mallory & Natsis LLP
George Cook, Santa Clara Valley Water District
Lester Feldman, Geomatrix Consultants, Inc.
Gary J. Grimm, Law Office of Gary J. Grimm



Space & Communications, Inc.

1204 Massillon Road
Akron, Ohio 44306-4186

George J. Markulis
Director, Environmental,
Health & Safety
and Associate General Counsel

February 9, 2007

Mr. Bruce H. Wolfe
Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street
Suite 1400
Oakland, CA 94612

RE: Tentative Order - Site Cleanup Requirements for Taube-Koret Campus for Jewish Life, for the Property located at 901 San Antonio Road, Parcel 2, Palo Alto, Santa Clara County

Dear Mr. Wolfe:

Thank you for giving Space Systems/Loral, Inc. ("SS/L") the opportunity to provide comments to the referenced Tentative Order for the property located at 901 San Antonio Road, Parcel 2, Palo Alto, CA. Attached hereto is a red-lined copy of the Tentative Order reflecting SS/Ls comments. Below is a summary of the basis for the comments contained in the attached:

Paragraph 2, last sentence: SS/L respectfully suggests that "Space Systems/Loral" be deleted from the last sentence and insert in its place "Ford Aerospace Corporation".

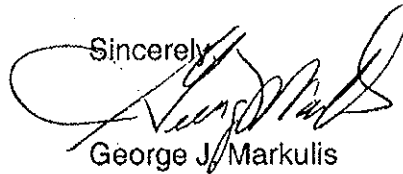
This suggested revision is proposed to accurately reflect that the former Ford Aerospace Corporation, and not Space Systems/Loral, sold the subject property to Sun Microsystems in 1988. Space Systems/Loral did not acquire Ford Aerospace Corporation until 1990.

Paragraph 7, first sentence of the 2nd Sub-paragraph: SS/L respectfully suggests that the word "voluntarily" be deleted from the sentence.

SS/L believes the language to be unnecessary in this sentence. Paragraph 4 of the Tentative Order provides the basis of Ford Motor Company's actions as set forth in Paragraph 7.

Again, thank you for the opportunity to provide comments to the above-referenced Tentative Order. Please contact the undersigned at (330) 796-1727 should you have any questions regarding the above or the attached.

Sincerely,



George J. Markulis

Jeff Farrar
Far Western Land and Investment, Inc.
2550 Lakewest Drive., Suite 50
Chico, CA 95928

Matt Dodt
Ford Motor Company
Environmental Quality Office
Three Parklane Blvd., Suite 950 West Dearborn, Michigan 48126
mdodt@ford.com

Lester Feldman
Geomatrix Consultants
2101 Webster Street, 12th Floor Oakland, CA 94612
lfeldman@geomatrix.com

Todd Arris
Sares Regis Group of Northern California 901 Mariners Island Boulevard, Suite 700 San Mateo, CA 94404
tarris@srgnc.com

Shelley Hebert
Campus for Jewish Life
5150 El Camino Real, Suite D-1 1 Los Altos, CA 94022
shelley@campusforjewishlife.org

James Baer
Campus for Jewish Life 172 University Avenue Palo Alto, Ca 94301
jimbaer@prprop.com

David Cooke
Allen Matkins Leck Gamble Mallory & Natsis LLP Three Embarcadero Center, 12th Floor
San Francisco, CA 94111 dcooke@allenmatkins.com

Nancy Bice
GeoSyntec Consultants 475 14th Street, Suite 450 Oakland, CA 94612
nbice@geosyntec.com

Franics Meynard
Pacific American Group
104 Calendonia Street, Suite C Sausalito, CA 94965 fmeynard@pacamgroup.com

George Cook
SC V WD
5750 Almaden Expressway San Jose, Ca 95118-3614 gcook@valleywater.org

Ed Firestone
Law Offices of Edward A. Firestone
775 Guinda Street
Palo Alto, CA 94301

Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law
Three Embarcadero Center, 12th Floor | San Francisco, CA 94111-4074
Telephone: 415.837.1515 | Facsimile: 415.837.1516
www.allenmatkins.com

David D. Cooke
E-mail: dcooke@allenmatkins.com
Direct Dial: 415.273.7459 File Number: C1278-002/SF701322.01

Via Email/US Postal

February 12, 2007

Bruce H. Wolfe
Executive Director
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay St., Suite 1400
Oakland, CA 94612

Attn: Ms. Michelle Rembaum-Fox

**Re: Tentative Order - Site Cleanup Requirements, 901 San Antonio
Road, Parcel 2, Palo Alto, California
SFRWQCB File No. 43S0977(MRF)**

Dear Mr. Wolfe:

On behalf of the Taube-Koret Campus for Jewish Life (TKCJL), we provide the following comments on the Tentative Order – Site Cleanup Requirements, for 901 San Antonio Road, Parcel 2, Palo Alto, California, distributed for comment on January 12, 2007. The property that is the subject of this Tentative Order is referred to in this letter as "the Site."

FINDINGS

Finding 1. Site Location - The last sentence in this paragraph states that the Site is bounded on the south by the 844 East Charleston Road property. This is not correct. The Site is bounded on the south by Charleston Road, a public right-of-way, not a property.

Finding 3. Named Dischargers. The previous orders applicable to the Site, listed in Finding 4 ("Regulatory Status"), identified as dischargers not only the current owner of the Site, but also past owners and operators that were deemed primarily responsible for discharges at the Site. In those previous orders, the subject property included not only the Site but also the adjacent property located at 3963 and 3977 Fabian Way (the "Fabian Way Site"). This Tentative Order, together with the companion tentative order for the Fabian Way Site, split the properties that were the subject of

Bruce H. Wolfe
February 12, 2007
Page 2

the prior order into two separate sites. This approach has been adopted in light of the soil remediation activities that Ford Motor Company ("FMC") has conducted at the Site on behalf of its reported indemnitees, Ford Aerospace Corporation ("FAC") and Space Systems/Loral ("Loral"), and in light of the development over the past several years of the Risk Management Plan ("RMP") that is the principal obligation of TKCJL under the Tentative Order. The fact remains, however, that FAC or Loral was the owner or operator of the Site during the period in which discharges impacting the Site took place. Therefore, Finding 3 should be revised to include the following language, or words to this effect: "Other persons, including prior owners or operators of the Site, may be named as dischargers in an amended order should previously undiscovered discharges of waste that have or entered or may enter waters of the State be discovered in the future."¹

Finding 4. Regulatory Status. This paragraph, and, for the sake of consistency, the heading on page 1 of the Tentative Order, should contain language making it clear that this Order, like the Tentative Order for the Fabian Way Site, adopts Final Site Cleanup Requirements and rescinds Order Nos. 99-043 and R2-2003-0071.

Finding 6. Remedial Investigation. The first sentence in the fourth paragraph states that "TCE has been documented in groundwater beneath much of the Site and has been associated with the arrival of TCE plumes from upgradient release(s)." This statement does not reflect the well documented presence of TCE at the Site caused by the biodegradation of PCE. It is important to be clear that TCE results from both off-Site and on-Site sources. The sentence should be revised as follows: "TCE has been documented in groundwater beneath much of the Site and has been associated with both the arrival of TCE plumes from upgradient release(s) and the on-Site degradation of PCE."

Finding 9. Environmental Risk Assessment. It is important that the environmental risk assessment conducted at the Site be accurately described. The second paragraph is not a clear description of the findings of the risk assessment. The paragraph should be revised to state as follows, or to include words to this effect:

As part of the redevelopment activities, a baseline risk assessment evaluated the hypothetical single-family residential scenario assuming unrestricted land use over areas of maximum VOC concentrations. The cumulative carcinogenic risks to the hypothetical on-Site resident from the three exposure media (vadose zone soil, soil gas, and

¹ We note that paragraph 3 of the Tentative Order for the Fabian Way Site contains similar, albeit broader, language addressing a similar issue: "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 Board will consider adding that party's name to this Order."

groundwater) exceeded an increased chance of one in one million of developing cancer over a lifetime (1×10^{-6}). While direct contact with soils was considered in the Human Health Risk Assessment as a potential pathway of concern for hypothetical future users, that pathway is no longer considered a concern because Site soils have since been remediated to Board-approved screening levels protective of direct contact. The vapor migration to indoor air from several VOCs detected in soil gas and groundwater is a potential pathway of concern for future users. Due to the vapor migration risk that will be present at the Site pending full remediation of Site groundwater, engineering controls and institutional constraints will be required to reduce on-site risk to acceptable levels.

Finding 10. Risk Management Plan. The second sentence of the first paragraph should clarify, consistent with the approved Risk Management Plan itself, that the measures specified in the Risk Management Plan will be implemented by TKCJL in the event that redevelopment of the property by TKCJL proceeds. The reason is that the RMP provisions were developed, and make sense, only in the context of the actual redevelopment of the Site in the manner described in the RMP and approved by the local authorities. The following revision to the second sentence of this finding, or to this effect, will accomplish this clarification: "The RMP specifies measures that will be implemented by TKCJL in the event and as part of the redevelopment of the property, to eliminate vapor intrusion into future buildings."²

ORDERS

Order B. Risk Management Plan - Item 1. Consistent with our recommendation with respect to Finding 10, we ask that Order B.1 be clarified to provide that the measures specified in the Risk Management Plan will be implemented by TKCJL in the event that redevelopment of the property by TKCJL proceeds. The paragraph should be revised as follows, or with words to this effect: "The discharger shall, as a condition of its development of the property in accordance with its proposed redevelopment plans, implement the Risk Management Plan as described in Finding 10 according to the time schedule contained in Section C of this Order."

² The RMP states: "The RMP will be enforceable by the RWQCB against the Owner of the Site (TKCJL, followed by successor owners), if the Site Owner proceeds with a development project that includes activities covered under this RMP." (p. ES-5). While an SCR order requiring implementation of the RMP would incorporate this requirement, we believe that the Tentative Order would benefit from the clarity that our proposed language would provide.

Allen Matkins Leck Gamble Mallory & Natsis LLP
Attorneys at Law

Bruce H. Wolfe
February 12, 2007

Page 4

Order C. Tasks - Item 2. This provision would be better described as "Risk Management Plan Implementation Reporting." Consistent with the comments regarding Finding 10 and Order B, the compliance date should be tied to the commencement of the redevelopment project. We recommend the following language: "30 days following the end of each calendar quarter, commencing with the calendar quarter during which construction on the redevelopment project commences."

Section D. Provisions. A paragraph should be added, as suggested above and consistent with the companion Tentative Order regarding the Fabian Way Site, stating that this Order and the Order regarding the Fabian Way Site together supercede and rescind Order Nos. 99-043 and R2-2003-0071.

We appreciate the opportunity to provide comments to the Board.

Very truly yours,

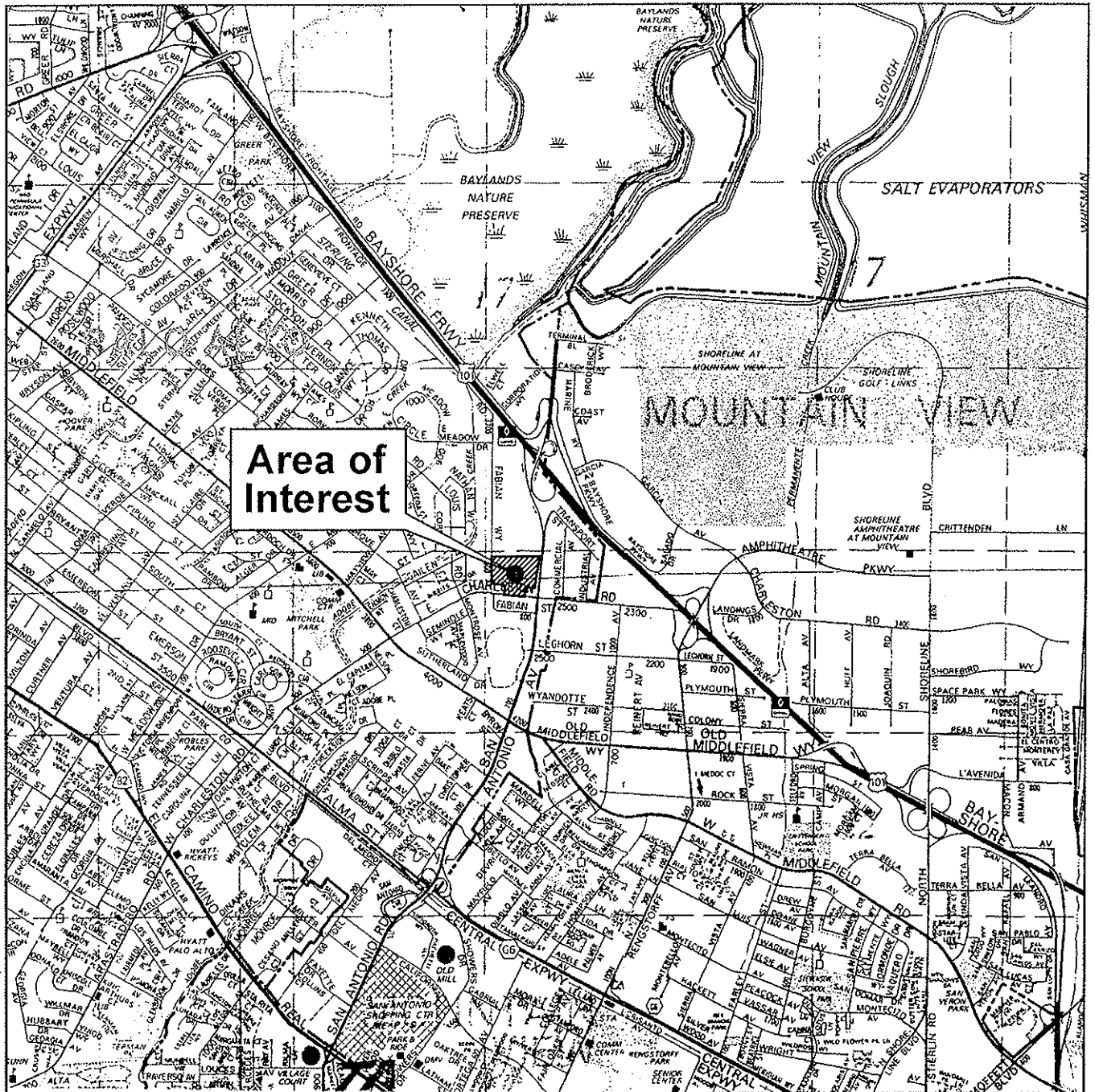


David D. Cooke

DDC

cc: Anders Lungren, RWQCB
Shelley Hebert, TKCJL
James Baer, TKCJL
Todd Arris, Sares-Regis
Nancy Bice, Geosyntec
Tom Graf, GrafCon
Matt Dodt, Ford Motor Co.
Gary Grimm, Esq. (Ford Counsel)
Lester Feldman, Geomatrix
George Markulis, Loral
Jeff Farrar, Far Western
Francis Meynard, Pacific American Group
George Cook, SCVWD

Appendix C - Site Location Map



Area of Interest

Reproduced with permission granted by THOMAS BROS. MAPS®. This map is copyrighted (c)1996 by THOMAS BROS. MAPS®. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission. Golden Gate Thomas Guide

10-JUN-2004 11:15
 S:\33005\3311\3311005\1\04_0212_bld\fig_01.dgn
 swegets
 geomtrx.ctb
 G:\GXP\PRINT\PL\JGDS



AREA OF INTEREST LOCATION MAP
 3963 and 3977 Fabian Way, and 901 San Antonio Road
 Palo Alto, California

Project No.
 3311.005
 Figure
1