

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

MODIFIED CLEANUP AND ABATEMENT ORDER NO. R4-2008-0034

REQUIRING THE GILLETTE COMPANY  
TO CLEANUP AND ABATE  
CONDITIONS OF SOIL, SOIL GAS, AND GROUND WATER POLLUTION  
CAUSED BY THE RELEASE OF VOLATILE ORGANIC COMPOUNDS  
AT 1681 26<sup>TH</sup> STREET,  
SANTA MONICA, CALIFORNIA

(FILE NO. 97-176)

Cleanup and Abatement Order No. R4-2008-0034 requires The Gillette Company (hereafter Discharger or Gillette), to assess, monitor, and cleanup and abate the effects of volatile organic compounds (VOCs) and other contaminants of concern discharged to soil and groundwater at their former Paper Mate<sup>®</sup> facility at 1681 26<sup>th</sup> Street, Santa Monica, California.

The California Regional Water Quality Control Board, Los Angeles Region ("Regional Water Board" or "LARWQCB") herein finds:

**I. INTRODUCTION**

1. The former Paper Mate<sup>®</sup> facility (Site) is located on 10.5 acres of land immediately north of Olympic Blvd. between Stewart Street on the east and 26<sup>th</sup> Street to the west in Santa Monica (Figure 1). This area is designated as an Industrial Corridor by the City of Santa Monica. There are four main buildings (Buildings I through IV) covering approximately 295,000 square feet. The buildings are on two adjacent properties (Figure 2). The northern property is currently owned by the Higgins Trusts (Higgins) and the southern property is currently owned by Hines 26<sup>th</sup> Street LLC (Hines). Buildings I, III, and IV are on the Hines Property and Building II is on the Higgins Property. Prior to 2007, the Hines Property was owned by the Stahl Trust (Stahl or Stahl Trust).
2. The Discharger began operations at the Site in 1957, when it leased Building I from Stahl. In 1968, Building II was leased from Higgins. This was followed, in 1972, with the leasing of Building III from Stahl and, in 1982, with the leasing of Building IV from Stahl. Operations ended in 2006.
3. Prior to the mid-1950s, the area near the Site was used for clay quarrying and brick firing. Evidence of the brick operations is visible in a 1938 aerial photograph. After the clay quarries were depleted they were used as landfills by the Cities of Santa Monica and Beverly Hills. No records describing the material deposited in the landfill have been provided to the Regional Water Board. Regional Water Board staff believes, because these were city landfills, that the predominant material deposited in the landfills is local household and industrial solid waste. The approximate locations of the clay quarries/landfills are shown in Figure 3.
4. VOCs have been detected in the subsurface soil, soil vapor, and groundwater underlying the Site. In addition, VOCs have been detected in groundwater beneath Olympic Blvd., immediately south of the Site.

Original date: July 25, 2008  
Modified date: November 10, 2010

### PROPERTY OWNERSHIP AND LEASEHOLD INFORMATION

5. Based on the information submitted to the Regional Water Board, and clarified by Gillette, the Property has the following property ownership and leasehold history:
  - a. Prior to the 1950's, industrial activities conducted near the Site were clay quarrying and brick manufacturing. Several of the resulting clay pits were subsequently sold to, leased by, or used by the City of Beverly Hills and the City of Santa Monica (City) for disposal of locally derived city wastes. When full, these landfills were capped and built upon by light industry. Information reported by the United States Environmental Protection Agency (USEPA) indicates that the City of Santa Monica Landfill No. 1 and the former Gladding McBean Dump underlie a portion the Site. Excavation of the pit used as City Landfill No. 1 began before 1938, and the pit was filled by 1975. Excavation of the pit used as the Gladding McBean Dump began in 1906, and the pit was filled by 1958.
  - b. In August 1956, Paper Mate® Manufacturing Company, a wholly owned subsidiary of Gillette, leased from Birch Investment, Inc. (Birch) the parcel of land on which Birch constructed Building I for Paper Mate®'s use. In 1957, Paper Mate® began the manufacture of ink and writing instruments at the Site.
  - c. In November 1967, Gillette leased an adjacent parcel of land (the Higgins Property) from the Higgins Brick and Tile Co. (later succeeded in interest by Higgins) on which it constructed Building II for Gillette's use.
  - d. In May 1972, Gillette leased from the Stahl Trust (the successor to Birch) an additional parcel of land on which the Stahl Trust constructed Building III for Gillette's use.
  - e. In December 1980, Gillette and the Stahl Trust restated the 1956 and 1972 leases and added the land on which Building IV was located as well as Building IV itself, which was previously occupied by Dome Chemical (Miles Laboratory). The property on which Buildings I, III, and IV are located is hereinafter referred to as the "Stahl Property" or, after July 2007, the "Hines Property."
  - f. In 2000, Gillette sold the Paper Mate® business to the Sanford Division of Newell-Rubbermaid, Inc. (Newell-Rubbermaid). In December 2000, Gillette subleased the Stahl Property to Newell-Rubbermaid, and Gillette assigned the lease for the Higgins Property to Newell-Rubbermaid. Newell-Rubbermaid continued manufacturing operations similar to those previously conducted by Gillette at the Site.
  - g. In 2002, Newell-Rubbermaid discontinued operations in Building II.
  - h. In October 2005, the stock of The Gillette Company was acquired by The Procter & Gamble Company (P&G), and Gillette continued to operate at the Site in its own name as a wholly-owned subsidiary of P&G.
  - i. As of the end of 2005, Newell-Rubbermaid had subleased the Higgins Property to Red Bull North America, Inc. (Red Bull). Red Bull subsequently renovated the building that previously served as Paper Mate Building II and relocated its North American headquarters to the renovated building in summer 2006.

- j. By June 2006, Newell-Rubbermaid had discontinued manufacturing operations on the Stahl Property.
- k. In summer 2006, Newell-Rubbermaid vacated all buildings on the Stahl Property. Gillette and Newell-Rubbermaid terminated the sublease of the Stahl Property on August 31, 2006.
- l. In July 2007, Hines purchased the Stahl Property (thereby becoming the Hines Property) from the Stahl Trust. Gillette's current lease of the Hines Property terminates no later than February 2013.

#### EVIDENCE OF CONTAMINATION AND BASIS FOR SECTION 13304 ORDER

##### 6. Chemical Usage and Storage During Manufacturing Operations at the Gillette Site

- a. **Building I** – In 1957, Paper Mate® began manufacturing operations in Building I. Operations included machining, electroplating, metal processing, degreasing, injection molding, and ink manufacturing. Hazardous materials and hazardous waste were also stored in Building I. Wastewater was generated, treated and discharged to the sanitary sewer. Figure 4 shows the locations of the various operations and facilities within Building I.

Machining included the manufacturing of pen parts from tungsten carbide balls, and brass and stainless steel rods. Chemicals used in machining included cutting oils, hydraulic fluids and lubricants.

Electroplating consisted of chromium and nickel plating of metal parts. Plating chemicals included nickel chloride solution, nickel sulfide solution, chromates, acids, and bases.

Metal processing included electroless nickel plating of parts. Chemicals used for electroless nickel plating included nickel sulfide solution, nickel chloride solution, acids, bases, paint thinner, lubricants, and methanol.

Degreasing began in 1958, using an aboveground perchloroethene (PCE) vapor degreaser. Initially the PCE was stored in 55-gallon drums. In 1978, the drums were replaced by an aboveground tank. During vapor degreaser operations the PCE exhaust vapors were condensed and recycled on site using a system of condensers, separators, filters, and holding tanks. Recovered and treated water was discharged to the municipal sanitary sewer. In addition to PCE, oils and machining fluids were used in the area of the vapor degreaser. Use of the PCE vapor degreaser ended in 2000, when it was replaced by a liquefied carbon dioxide degreaser.

Injection molding began in 1957 and continued through the close of the Site in 2006. Chemicals used in the molding process included hydraulic oils, lubricants, grease, coolants, antifreeze, adhesives, primers, and paints. A cooling tower was used to cool the molding equipment. Waste water from the cooling tower was periodically discharged to a clarifier.

Available information from Gillette indicates that there are no written records regarding hazardous materials and waste management practices or the types of wastes generated at the facility prior to 1979. Gillette believes that hazardous materials were stored in 55-gallon drums in the building. Oils and waste oils were stored in drums outside until 1983, when underground waste tanks were installed. Hazardous materials were stored in the building until 1975, when a bermed and fenced hazardous materials storage area was built outdoors and the hazardous

materials were moved outside. In 1978, Gillette began installing eight underground storage tanks (USTs) and 17 aboveground storage tanks (ASTs) outside of Building I. The tanks were used for storing hazardous materials and hazardous waste. The eight USTs were removed in 1993. Nine ASTs remain near Building I.

Industrial wastewater from Building I was produced at the plating area, the vapor degreasing area, the nickel cavity operations area, the quality control laboratory, the cooling towers, and the boiler. Thereafter, the wastewater was treated, and discharged to clarifiers on the north and south sides of the building. The plating area discharge contained chromium and the chemicals used to treat the waste stream. Vapor degreasing operations in Building I ended in 2000. The nickel cavity operations area was moved to Building II in 1968. The clarifier on the north side of Building I received waste from the injection molding process and cooling tower blowdown water. These discharges continued until the facility ceased operating in 2006.

- b. **Building II** – Manufacturing operations began in Building II in 1968. Operations included extrusion of plastic pen parts, sintering and grinding, ink manufacturing, product assembly, nickel plating, and plant maintenance. Figure 5 shows the locations of the various operations and facilities within Building II.

Chemicals used included lubricants, cutting fluids, oils, propylene glycol, grease, dyes, 1,1,1-trichloroethane, naphtha, methyl ethyl ketone, isopropyl alcohol, methanol, hydraulic oil, sealants, metal polish, primers, and adhesives.

Hazardous materials were stored in designated areas within Building II until 1975. In 1975 they were moved outside to a bermed and fenced storage area near the southwest corner of Building II.

Aboveground storage tanks and USTs were installed at the north and east sides of Building II in 1968. These tanks were used to store hazardous materials and wastes. There were 28 ASTs and 27 USTs. All USTs were removed from the area of Building II between 1987 and 2002. All ASTs were removed from the area of Building II between 1983 and 2002.

Industrial wastewater was produced during ink manufacturing and nickel plating.

- c. **Building III** – This building was first occupied by Gillette in 1972. It was used for packaging, warehousing, and shipping products. Figure 6 shows the locations of the various operations and facilities within Building III.

In 1994, manufacturing began in the building. Manufacturing included extrusion, molding, and assembly. Facility maintenance also occurred in the building. Chemicals used included hydraulic oil, lubricants, grease, fluid coolant, antifreeze, adhesives, primers, paints, cutting fluids.

Hazardous materials were stored in designated areas within Building III. There were no ASTs or USTs near Building III. Industrial wastewater was not produced at Building III.

- d. **Building IV** – This building was first occupied by Gillette in 1982. It was used for general storage and product storage. Figure 7 shows the locations of the various operations and facilities within Building IV.

In 2002, operations ceased in Building II and equipment maintenance moved to Building IV.

Maintenance involved rinsing processing equipment brought from other parts of the building. The equipment was rinsed with water, glycols, and n-propanol. The rinse liquid was handled as industrial wastewater. Other chemicals used included adhesives, lubricants, grease, metal polish, and primers.

The hazardous materials noted above were stored in designated areas within Building IV. There were no ASTs or USTs near Building IV. Industrial wastewater was not produced at Building IV.

## 7. Waste Releases Discovered During Subsurface Investigations at Gillette Site

- a. In 1986, Converse Environmental West discovered that one underground storage tank (UST) located near the northeast corner of Building II (T-10) and two USTs on the north side of Building II (T-11 and T-12) failed leak tests. As a result, Tri/Con Engineering conducted an investigation of both areas and discovered 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), tetrachloroethene (PCE), methyl ethyl ketone (MEK), methylene chloride, and 1,1-dichloroethene (1,1-DCE) in soil near tank T-10. (GeoSyntec, 2005, p. 40). In 1986, Converse Environmental West performed an investigation of USTs T-1 through T-6, T-17, and T-18 located on the south side of Building I. Petroleum hydrocarbons were found in one soil boring near tanks T-17 and T-18 at a concentration of approximately 1,400 parts per million. The presence of the petroleum compounds was attributed to the discovery of creosote-soaked railroad ties at a depth of three feet below ground surface. In letters dated August 18, 1993 and August 18, 1994, the City of Santa Monica approved closure of tanks T-17 and T-18 and tanks T-1 through T-6, respectively (City of Santa Monica, 1993; City of Santa Monica, 1994). All USTs were closed and removed.
- b. Between 1986 and 1990, Ecology & Environment performed several investigations of the Site under contract to the USEPA and concluded that the Site was eligible for placement on the National Priorities List but a "low priority." In 1990, Converse Environmental West concluded that there was no basis on which to consider the Site eligible for Hazard Ranking System scoring.
- c. In February 1992, Converse Environmental West submitted a report for the environmental assessment of former plating operations in Building I. The assessment discovered elevated nickel concentrations and low concentrations of cyanide in one boring located next to the southern wall of Building I. Converse concluded that no further assessment was necessary, and in April 1992 the City of Santa Monica concurred with Converse's conclusions.
- d. In May 1993, broken piping was discovered under USTs T-7, -8, -9, and -10 at the east end of Building II. Volatile organic compound-impacted soil was identified beneath and adjacent to these tanks. Tri/Con Engineering performed an investigation of the area surrounding these tanks in 1994 to further delineate this soil contamination. The LARWQCB approved the discontinuation of remedial activities in this area in August 1998.
- e. From August through October 2000, GeoSyntec conducted a baseline environmental assessment at the Site as part of a potential divestiture of the Paper Mate business. That assessment identified detections of VOCs in soil, soil vapor and groundwater that Gillette reported to the LARWQCB in a December 2000 letter.
- f. In December 2000, Gillette also notified the LARWQCB of plans to perform further characterization of site conditions, and in April 2001 Gillette submitted the Work Plan for Expanded Site Assessment.

- g. From February through March 2002, GeoSyntec implemented the expanded site assessment to further characterize the extent of VOCs in the subsurface at the Site. This study confirmed that soil gas and soil in the vicinity of Building I were impacted by VOCs.
- h. GeoSyntec implemented a quarterly groundwater monitoring program in March 2002. In 2005, this program was revised to include additional analytes.
- i. GeoSyntec conducted a Phase II investigation of both the uppermost groundwater depth interval (approximately 40 to 70 feet below ground surface [bgs], the "A Zone") and a deeper groundwater depth interval (approximately 85 to 110 feet bgs, or "B Zone") from July to August 2003. Seven new monitoring wells were installed at the Site. The investigation found maximum concentrations of PCE of 31,000 micrograms per liter ( $\mu\text{g/L}$ ) in the A zone and 13,000  $\mu\text{g/L}$  in the B zone. GeoSyntec concluded that the congruence of the A Zone and B Zone distributions of PCE suggested vertical migration of dissolved PCE in groundwater at the Site.
- j. Between February and August 2005, GeoSyntec performed additional investigation of the vadose zone to further characterize the VOC contamination near Building I. The study confirmed that the soil and soil gas in the vicinity of Building I were impacted by VOCs, with the highest concentrations of PCE detected near the former degreaser.
- k. From April to November 2006, GeoSyntec conducted further investigation of the vadose zone, A-zone groundwater and B-zone groundwater. This investigation found the following:
  - A. There were no significant widespread impacts to subsurface soil at the Site other than the previously-discovered VOC impacts. However, elevated metals contamination was found in several locations of apparently limited extent, associated with clarifiers and waste storage areas. The metals contamination is not fully assessed.
  - B. The highest PCE concentrations ( $>1,000 \mu\text{g/L}$ ) in soil vapor were found in areas surrounding the former vapor degreaser. The distribution of PCE, trichloroethene (TCE), and other related chemicals in soil vapor appeared to be located beneath the manufacturing area in Building I, extending to just north of the property boundary, the entire east-west length of Building I and the western portion of Building III, and up to the property line to the south.
  - C. Hydropunch and monitoring well sampling of the groundwater suggested that the presence of VOCs in groundwater near the northern property boundary appeared to be continuous with the presence of VOCs in groundwater beneath Building I. Both A-Zone groundwater and B-Zone groundwater was shown to be impacted by VOCs, with a maximum PCE concentration of 21,000  $\mu\text{g/L}$  in the A Zone and 11,000  $\mu\text{g/L}$  in the B Zone.
  - D. Additional soil vapor sampling conducted to the south of the Site beneath Olympic Boulevard confirmed that significant concentrations of PCE and other related VOCs in the vadose zone do not extend beyond the southern property line.
- l. Investigation of B-zone and deeper groundwater was conducted by Geomatrix between March and May 2007. PCE concentrations in groundwater ranged from 4.9 to 16,000  $\mu\text{g/L}$ , and TCE concentrations ranged from 4.5 to 6,000  $\mu\text{g/L}$ . VOC concentrations were found primarily beneath Building I and were found to be relatively low under Building III. The investigation

concluded that deeper groundwater assessment was needed to delineate the vertical extent of VOC impacts in groundwater at the Site.

- m. In July 2007, Geomatrix performed a supplemental soil vapor assessment of localized VOC impacts in a small area on the western end of the Higgins Property, which had been discovered during previous assessment work. The new data confirmed that the VOCs were limited in extent.
- n. From July to August 2007, Geomatrix conducted a coordinated groundwater monitoring event in order to assess groundwater flow and VOC concentrations in groundwater in the vicinity of the Site. A total of 73 monitoring wells at five participating sites in the area were included in the event, which included measurement of groundwater levels and collection and analysis of groundwater samples. Results of this coordinated monitoring event provided information regarding groundwater levels and hydraulic gradients in the area. The work also provided information regarding the presence and distribution of VOCs in groundwater along the Olympic Boulevard corridor. The data showed that VOCs likely have been released from several other facilities in the area, some of which are performing separate investigations under LARWQCB or other agency oversight.
- o. In December 2007, Geomatrix submitted an assessment of geologic faulting in the vicinity of the Site and discussed its potential influence on groundwater flow. The report concluded that faults or other geologic heterogeneities in the area may influence groundwater levels and flow. The specific locations and characteristics of these features, and their influence on groundwater flow, are uncertain and not well constrained by available data.
- p. In 2008 and 2009, Geomatrix conducted further investigations to assess deeper groundwater below the B Zone at the Site to further delineate the vertical extent of groundwater impacts, to obtain additional data to assist in the development of a conceptual model for the Site and to characterize the lateral and vertical extent of impacts to off-site groundwater.

#### **8. Source Elimination and Remediation Status at Gillette Site**

- a. In May 1982, City of Santa Monica workers discovered ink chunks in the sewer at manholes located at 1707 Stewart Street and at the intersection of Stewart Street and Nebraska Avenue. The ink reportedly was discharged from the old clarifier and into the City sewer during its removal and installation of the new clarifier. The ink precipitate did not mix with the fluids in the sewer line and was collected for disposal off-site.
- b. In September 1982, City of Santa Monica inspectors documented leaking waste oil drums and stained soil in the hazardous materials/waste storage area on the south side of Building I. The resulting remedial action included the removal of the drums, excavation of impacted soil, paving of the containment area, and the installation of eight USTs for the storage of oil and waste oil.
- c. In November 1983, a Building II sewer line leaked and released sewage and water-based ink. The line and approximately 55 tons of soil containing trace concentrations of raw sewage and water soluble ink were excavated and disposed of off-site.
- d. As a result of the investigation that followed the failed leak test of three USTs in 1986 described earlier, Tank T-10 was removed in September 1987 along with 41 cubic yards of affected soil. The City of Santa Monica subsequently approved reinstallation of the repaired tank.

- e. As a result of the discovery of petroleum hydrocarbons on the south side of Building I described earlier, an eight-by-ten foot pit was excavated down to a depth of five feet in the area around the boring with detectable concentrations in 1986. Samples from the bottom of the excavation had no detectable petroleum hydrocarbons. After the remediation was complete, the excavation was backfilled and covered with cement.
- f. In May 1993, Converse Environmental West discovered petroleum hydrocarbon-impacted soil during the removal of USTs T-1 through T-6 on the south side of Building I. As a result, the excavation to remove the tanks was expanded and an additional 101 tons of impacted soil was removed and disposed of off-site. In September 1993, Converse drilled four soil borings in the vicinity of these tanks and discovered petroleum hydrocarbons at concentrations up to 250 milligrams per kilogram (mg/kg). As a result, Converse conducted a bucket auger soil removal program and excavated approximately 20 tons of impacted soil based on a cleanup level of 100 mg/kg total recoverable petroleum hydrocarbons (TRPH) and total petroleum hydrocarbons (TPH) approved by the City of Santa Monica. The City granted closure of the former USTs T-1 through T-6 in August 1994.
- g. In February 1995, Tri/Con Engineering installed a soil vapor extraction (SVE) system in the vicinity of former USTs T-7 through T-10 east of Building II to address the VOC impacts to soil identified in May 1993 described earlier. The system was operated until May 1996. In September 1996, Tri/Con conducted post-remediation confirmation sampling which found non-detect levels of VOCs in soil at all sampled depths. The LARWQCB approved discontinuing use of the SVE system in August 1998.
- h. Although the City of Santa Monica concurred that no further assessment of the plating area in Building I was needed in April 1992, Converse Environmental West excavated approximately 4.6 cubic yards of soil to a depth of 5 feet near boring BH-2, for which soil samples had elevated levels of nickel and low concentrations of cyanide, in December 2001. None of the confirmation samples contained metals concentrations greater than those found in the background soil samples.
- i. In February 2005, GeoSyntec installed and pilot-tested six soil vapor extraction (SVE) wells in the area near Building I to provide input parameters necessary to facilitate design of an SVE remedial system.
- j. In March 2006, the LARWQCB approved the use of high-vacuum soil vapor extraction as an appropriate remedial technology to address vadose zone contamination at the Site.
- k. In May 2006, GZA submitted a conceptual design for the high-vacuum SVE system intended to address vadose zone impacts at the Site. The LARWQCB approved this design report in July 2006.
- l. In September 2006, Geomatrix submitted an Engineering Evaluation/Cost Analysis Report for an interim remedial measure (IRM) for "hot spots" of VOCs in the A-Zone groundwater at the Site. Geomatrix recommended the use of in-situ thermal treatment (ISTT).
- m. From February to March 2007, GZA conducted additional SVE pilot-testing to supplement data needed for the design of the contemplated SVE and ISTT systems at the Site.
- n. In March 2007, Geomatrix conducted hydraulic testing to obtain data needed for the design of the ISTT system.



- o. In June 2007, GZA submitted a design report for a single-well SVE system to remediate a localized vadose zone VOC impact on the Higgins Property. From September to October 2007, GZA installed the extraction well near the western side of Building II and extended lateral piping to Building III on the Hines Property, where the SVE treatment system was installed. The system is currently in operation.
- p. Upon further consideration and discussions with Gillette, the LARWQCB in December 2007 approved the use of ISTT as the final remedy for the vadose zone at the Site as well as the A-Zone groundwater IRM. Gillette is currently in the process of performing the ISTT for these purposes.

#### 9. Summary of Findings from Subsurface Investigations

- a. Regional Water Board staff have reviewed and evaluated technical reports and records pertaining to the release, detection, and distribution of contaminants on the former Site and its vicinity. The Discharger has stored, used, and/or released VOCs, including PCE, on the Site. Elevated levels of PCE and other contaminants have been detected in soil vapor, soil, and groundwater beneath the Site, especially near the former PCE vapor degreaser and vicinity, in building I.
- b. The sources for the evidence summarized above include, but are not limited to:
  - A. Various technical reports and documents submitted by the Discharger or its representatives to Regional Water Board staff.
  - B. Site inspections, meetings, letters, electronic mails, and telephone communications between Regional Water Board staff and the Discharger or its representatives.

#### 10. Summary of Current Conditions Requiring Cleanup and Abatement

Site contamination and the proximity of the Site to water supply wells used by the City of Santa Monica are the primary conditions requiring Site cleanup and abatement. Site contamination includes the presence of PCE and TCE in shallow groundwater beneath the Site at concentrations as high as 21,000 µg/L and 1,400 µg/L, respectively. Deep groundwater beneath the Site is contaminated with TCE at concentrations as high as 979 µg/L. There are significant sources of PCE and TCE in Site soil as indicated by detections of PCE and TCE in soil vapor at concentrations as high as 28,000 µg/L and 4,904 µg/L, respectively, and in soil at concentrations as high as 2,500,000 µg/kg and 170 µg/kg, respectively.

There are three City of Santa Monica water supply wells near the Site. Well SM-7 is immediately south of the east end of the Site, well SM-4 is approximately 750 feet east of the Site, and well SM-3 is approximately 1600 feet east of the Site. Volatile organic compounds including PCE and TCE have been detected in the City of Santa Monica water supply wells.

- 11. Section 13304 of the California Water Code states, in part, that "Any person.... who has caused or permitted to cause....any waste to be discharged or deposited where it is, or probably will be discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the Regional Water Board clean up such waste or abate the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action."

12. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304." This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California. Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to a background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.
13. The Regional Water Board adopted an amended "Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)" on June 13, 1994. The Basin Plan designates beneficial uses and establishes water quality objectives (WQOs) for inland surface waters, ground waters, coastal waters and wetlands. Beneficial uses designated for the Santa Monica Basin groundwater include, but are not limited to municipal and domestic supply (MUN), industrial service supply (IND), industrial process supply (PROC), and agricultural supply (AGR).
14. The VOC wastes detected at the Site are not naturally occurring, and some are known or suspected as human carcinogens or potential carcinogens. These wastes impair or threaten to impair the beneficial uses of the groundwater.
15. Water Quality Objectives listed in the Basin Plan include numeric WQOs, [e.g., state drinking water maximum contaminant levels (MCLs)], and narrative WQOs, including the narrative toxicity objective and the narrative tastes and odors objective for surface and groundwater. The MCLs for VOCs in drinking water by the State of California Department of Public Health (DPH) and the United States Environmental Protection Agency (USEPA) are 5 µg/L for PCE, 5µg/L for TCE, and 6µg/L for 1,1-DCE, among others. The detected VOCs levels in the groundwater beneath the Site and its vicinity have significantly exceeded the MCLs, thus impairing the beneficial uses of the groundwater.
16. The issuance of this Order is an enforcement action taken by the Regional Water Board, a regulatory agency, and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

#### **Circumstances Leading to Modification of Cleanup and Abatement Order**

17. The City of Santa Monica has a long and successful history of groundwater basin management. Beginning in 1924, the City of Santa Monica has operated drinking water production and distribution for numerous City groundwater drinking water wells situated in three distinct groundwater aquifer basins.
18. Comprehensive management of these existing City groundwater basins has included extensive monitoring of groundwater wells located in each aquifer for both water elevation levels and water chemistry constituents.

19. Groundwater monitoring reports are currently submitted to the Los Angeles RWQCB for the Charnock Sub-Basin and for the Olympic Sub-Basin. The reports provide important groundwater flow and contaminant contours that are utilized in basin management decisions and drinking water treatment operations.
20. In the Olympic Sub-Basin, the City monitors 23 groundwater wells that are located adjacent to and in the surrounding area south of the Site.
21. The City has performed almost a decade of Olympic Sub-Basin groundwater monitoring in an effort to characterize and protect groundwater resources.
22. Under its current management of the Olympic Sub-Basin, the City continues to plan to implement an enhanced groundwater monitoring program, which may utilize some wells currently on the Site. All collected data will be incorporated into the current "Preliminary Site Conceptual Model Update and Groundwater Monitoring Report" that is submitted to the Los Angeles RWQCB on a quarterly basis.
23. The Regional Water Board encouraged Gillette and the City to enter into negotiations with respect to an appropriate plan for the replacement and/or restoration of groundwater impacted by contamination at or from the Site. As a result, Gillette and the City have entered into a Settlement and Release Agreement (Agreement) which specifies their respective rights, duties and obligations with regard to the restoration and replacement of groundwater in the Olympic Sub-Basin including funds for the extraction of groundwater from the Sub-basin and the construction and operation of facilities for the treatment of such groundwater. The Agreement has been presented to the Regional Water Board. Accordingly, as set forth below, the Regional Water Board issues this Modified CAO in acknowledgement of the Agreement, a true and correct copy of which is attached hereto as Exhibit A and incorporated by reference. It is anticipated that the treatment facilities contemplated by the Agreement will not be constructed on the Site.
24. As a result of the Agreement, and with funds provided by Gillette pursuant to the Agreement, the City is undertaking to perform certain activities as set forth in the Technical Memorandum submitted by the City to the Regional Water Board on February 18, 2010 as supplemented by letters dated April 16, 2010 and April 22, 2010 to the Regional Water Board and as acknowledged by the Regional Water Board in a letter to the City dated May 3, 2010 (all contained in and referred to as Exhibit B hereto). The City has agreed that extraction of ground water will be at a sufficient rate to capture the contamination from the Site. If such extraction cannot capture the contaminant plume from the Site, the City shall implement additional actions to control the plume as provided for in Exhibit B.

## II. REQUIRED ACTIONS

**IT IS HEREBY ORDERED**, pursuant to California Water Code Section 13304 and the Agreement, that:

1. Gillette shall complete the work described in the "In Situ Thermal Treatment Design Report, Former Paper Mate® Facility," submitted by Gillette to the Regional Water Board on December 30, 2008 (Report) and approved by the Regional Water Board on February 9, 2009 (Work), complying with all applicable regulatory requirements, directives and orders imposed by the Regional Water Board or other regulatory agency exercising lawful jurisdiction with respect to the Work described in the Report. Upon Gillette's completion of the Work described in the Report, the Regional Water Board shall issue a "No Further Action Letter" to Gillette, provided that Gillette is in compliance with its obligations under the Agreement.

2. Gillette shall comply with its other obligations as set forth in Section III of the Agreement.
3. Provided that Gillette is in compliance with its obligations under the Agreement, the Regional Water Board hereby discharges Gillette from, and does not otherwise require Gillette to perform, any other obligations under the CAO and discharges Gillette from any future obligations to further investigate, monitor, remediate, restore, and/or replace groundwater in the Olympic Sub-Basin. The Regional Water Board preserves all its legal rights to undertake enforcement actions against any appropriate party, including the City of Santa Monica, if the party fails to carry out its obligations under the Agreement or Exhibit B.
4. The discharge set forth above shall extend to P&G (as Gillette's parent and Guarantor under the Agreement), and to all prior and current owners and operators of the Site; specifically including without limitation, Stahl, Higgins, Newell-Rubbermaid, and Hines, for all environmental conditions in the Olympic Sub-Basin caused or contributed to by discharges at or from the Site.
5. The Regional Water Board's authorized representative(s), as well as the City of Santa Monica, shall be allowed:
  - a. Entry upon premises where a regulated facility or activity is located, conducted, or where records are stored, under the conditions of this Order;
  - b. Access to copy any records that are stored under the conditions of this Order;
  - c. Access to inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
  - d. The right to photograph, sample, and monitor the Site for the purpose of ensuring compliance with this Order, or as otherwise authorized by the California Water Code.
6. Gillette, to the extent it has knowledge thereof, shall submit 30-day advance notice to the Regional Water Board of any planned changes in name, ownership, or control of the Site; and shall provide 30-day advance notice of any planned physical changes to the Site that may affect compliance with this Order. In the event of a change in ownership or operator, Gillette also shall provide 30-day advance notice, by letter, to the succeeding owner/operator of the existence of this Order, and shall submit a copy of this advance notice to the Regional Water Board.
7. Abandonment of any groundwater well(s) at the Site must be reported to the Executive Officer at least 14 days in advance. When a well is removed, all work shall be completed in accordance with California Department of Water Resources Bulletin 74-90, "California Well Standards," Monitoring Well Standards Chapter, Part III, Sections 16-19.
8. The duties set forth in Section II, Paragraphs 5 through 7 shall be effective until such time as Gillette's lease of the Site is terminated. Gillette shall exercise best efforts to obtain from Hines such-access-rights-as-are-necessary to allow the City to perform groundwater monitoring on the Site after termination of Gillette's lease.
9. Gillette shall notify the Regional Water Board of any modifications to the Agreement attached hereto as Exhibit A within 30 days after such modifications are made. Any substantive changes to Sections III and IV of the Agreement shall void the release set forth in Section II. (3) above unless the modifications are approved by the Regional Water Board, which approval will not be unreasonably withheld.

10. A California licensed professional civil engineer or geologist, or a certified engineering geologist or hydrogeologist shall conduct or direct the subsurface investigation and cleanup program. All technical documents shall be signed by and stamped with the seal of the above-mentioned qualified professionals.
11. Encourage public participation. Continue to implement the March 2, 2006, *Public Participation Plan*, with the goal of providing the stakeholders with:
  - a. Information, appropriately targeted to the literacy and translational needs of the community, about contamination investigation and remedial activities; and
  - b. Periodic, meaningful opportunities to comment upon and to influence investigation and cleanup activities.

Public participation activities shall coincide with key decision making points throughout the process as specified or as directed by the Executive Officer.

### III. GENERAL PROVISIONS

The following provisions shall apply:

1. This CAO compels performance of the Required Actions in Section II above in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, the Agreement, and other applicable plans, policies, and regulations.
2. If Gillette fails to comply with this CAO, the Executive Officer may request the California Attorney General to petition the Superior Court for the issuance of an injunction.
3. If Gillette violates this CAO, Gillette may be liable civilly in a monetary amount provided by the California Water Code.
4. The Regional Water Board retains jurisdiction to amend or modify this CAO in the event Gillette breaches its obligations under the Agreement and to issue appropriate orders against the City of Santa Monica if it fails to fulfill its obligations under the Agreement and Exhibit B.
5. The Regional Water Board hereby revises and modifies its prior Cleanup and Abatement Order No. R4-2008-0034, issued to Gillette on or about July 25, 2008, and Gillette shall have no further responsibilities, obligations, or liabilities thereunder.
6. This CAO is not intended to interfere with any rights that the Discharger may have if it determines that other parties have responsibility for the contamination of soil or groundwater beneath the Site and its vicinity, or in the Olympic Sub-Basin generally.
7. Upon request by Gillette, and for good cause shown, the Executive Officer may defer, delete or extend the date of compliance for any action required of Gillette under this CAO.
8. Failure to comply with the terms and conditions of this CAO may result in imposition of civil liabilities, imposed either administratively or judicially in accordance with sections 13268, 13304, 13308, and 13350, et seq., of the California Water Code, and/or referral to the Attorney General of the State of California for such action as he/she may deem appropriate.

9. This Order is not intended to permit or allow the Discharger to cease any work required by any other Order issued by this Regional Water Board for another site, nor shall it be used as a reason to stop or redirect any other investigation or cleanup or remediation programs ordered by this Board or any other agency for another site. Furthermore, this Order does not exempt Gillette from compliance with any other laws, ordinances or regulations that may be applicable to the Work.
10. It is the intent of this Regional Water Board to issue Waste Discharge Requirements (WDR) or other Orders pursuant to sections 13263, 13304, and 13350 of the California Water Code when appropriate to facilitate cleanup and abatement activities required to complete the Work. Chemical or biochemical compounds cannot be injected into the subsurface until a site-specific WDR or applicable general WDR is issued by this Regional Water Board. Additionally, continued monitoring of the groundwater quality beneath the area of concern after the completion of this cleanup and abatement activity may be required as set forth in Exhibit B, according to a monitoring schedule to be established between the Regional Water Board and the City of Santa Monica as is set forth in Attachment A, Section 4.
11. Section 13304 of the California Water Code allows the Regional Water Board to recover reasonable expenses from Gillette to oversee the Work and from the City of Santa Monica for its activities to be performed pursuant to the Agreement and Exhibit B.
12. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and the California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

Ordered by:

  
Deborah Smith  
Chief Deputy Executive Officer

Date: November 10, 2010



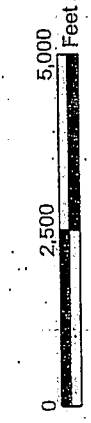
FIGURE 1.

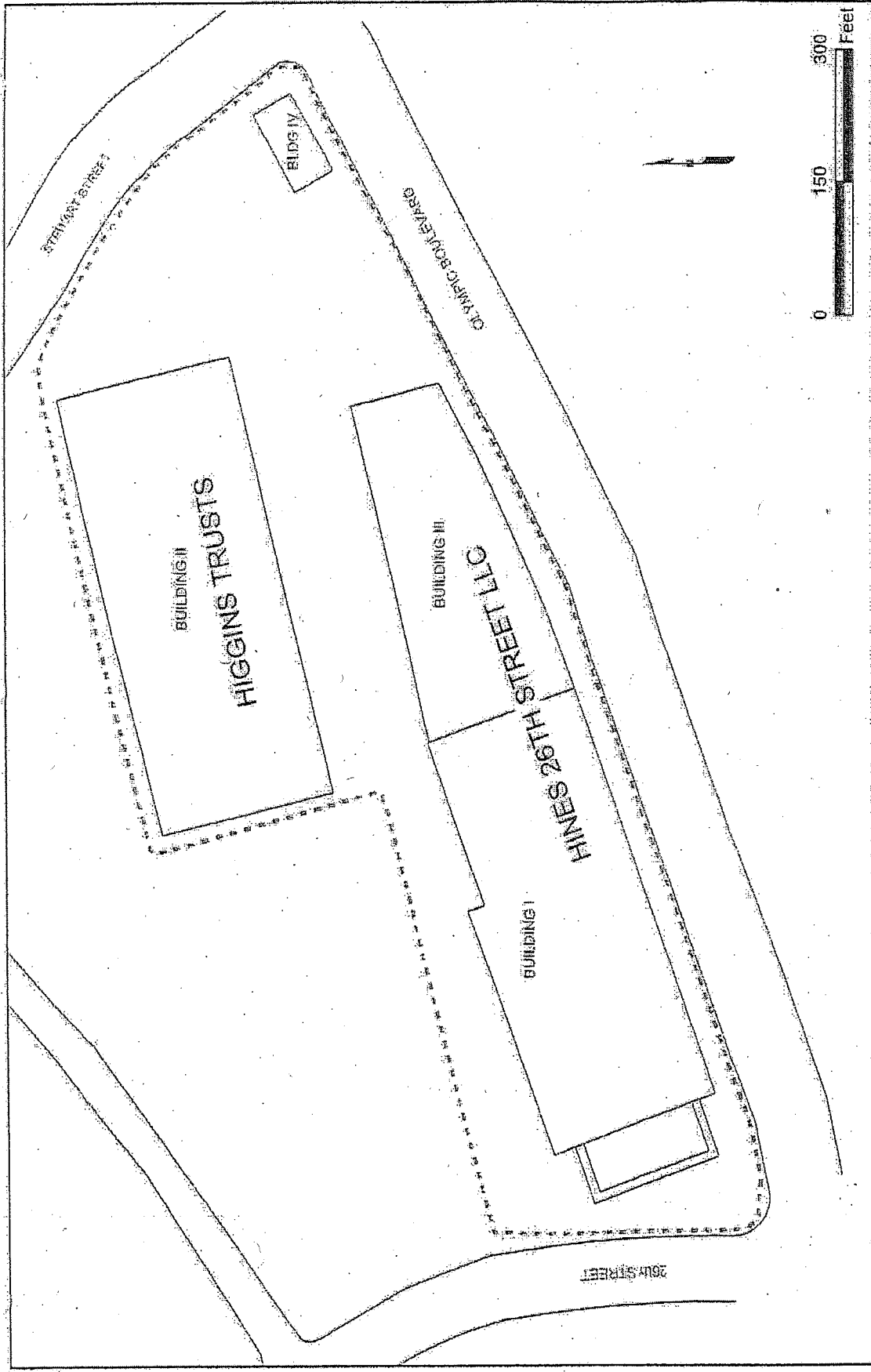
PROJECT WR0561

GeoSyntec Consultants



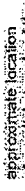
Site Location

PAPERMATE FACILITY  
SANTA MONICA, CALIFORNIA





**LEGEND:**

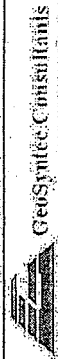
-  building
-  property line
-  approximate location of fault(s) strands of the South Branch of the Santa Monica Fault

**Site Plan**

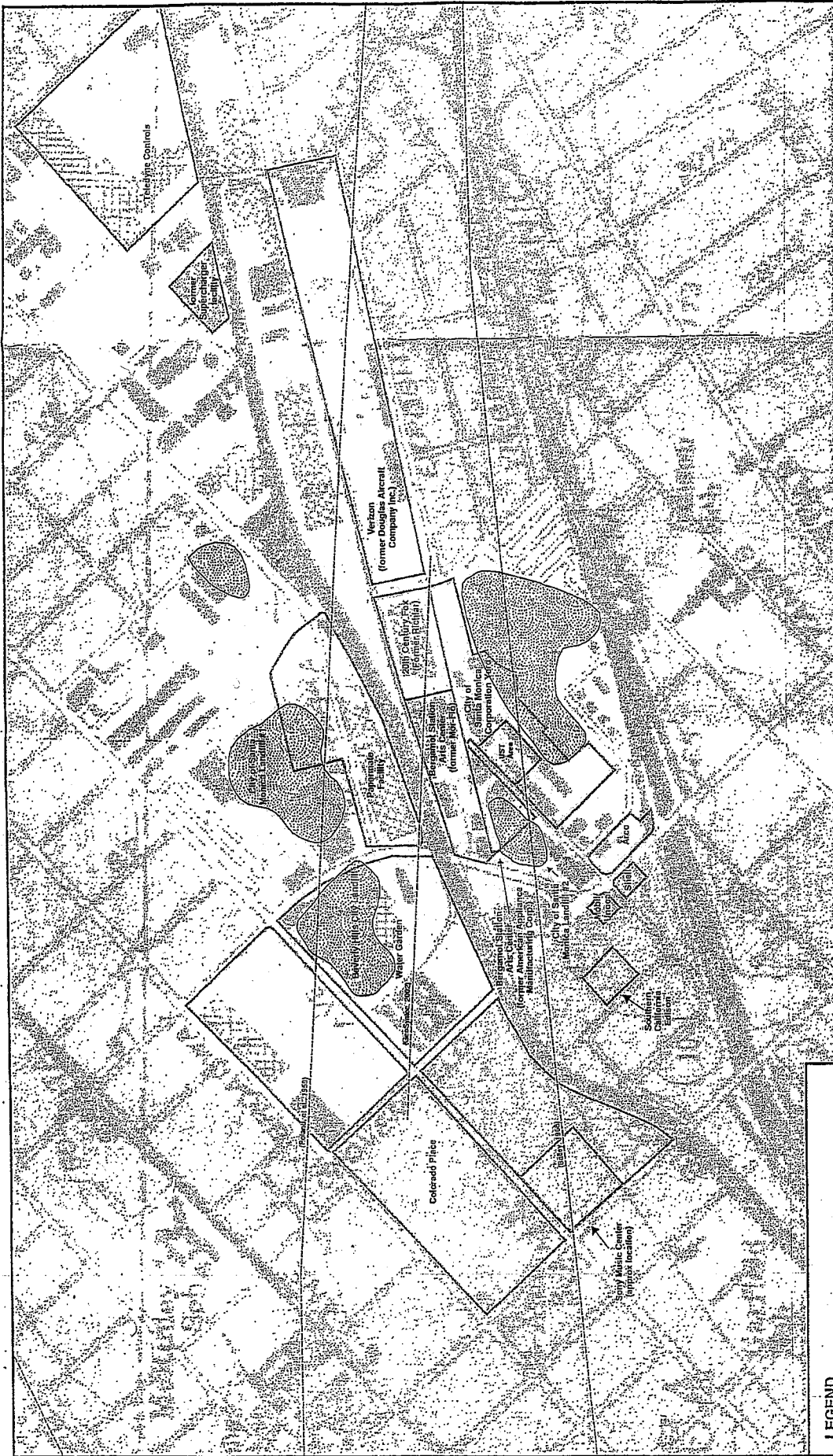
PAPERMATE FACILITY  
SANTA MONICA, CALIFORNIA

FIGURE NUMBER: 2

PROJECT NUMBER: WFO561







**FIGURE 3**  
**Site Vicinity Map**  
 PROJECT WR0561  
 December 2005  
 GeoSyntec Consultants

**PAPERMATE FACILITY**  
**SANTA MONICA, CALIFORNIA**

**LEGEND**

- Historical Landfill Boundary
- Property Boundary
- Approximate Mapped Trace of South Branch Santa Monica Fault

0 250 500 Feet

[www.geosyntec.com](http://www.geosyntec.com)









**Attachment - A  
 TIME SCHEDULE**

REQUIREMENT	DUE DATE
<b>1</b>	<b>Remediation of Vadose Zone Soil and Shallow Groundwater beneath Buildings I and III Pursuant to RWQCB Approved Remedial Action Plan and Design Report</b>
A	Operate ISTT Remediation System for Vadose zone soil and A-zone groundwater beneath Buildings I and III area Ongoing.
B	Submit ISTT Remediation Progress Report for Buildings I and III area  <u>Report Period</u> January to March April to June July to September October to December  <u>Report Due Date</u> <b>April 30<sup>th</sup></b> <b>July 31<sup>st</sup></b> <b>October 31<sup>st</sup></b> <b>January 31<sup>st</sup></b>  The first report under this modified CAO is due <b>January 31, 2011.</b>
C	Submit Remediation Confirmation Soil and Soil Vapor Sampling Workplan for Buildings I and II for Regional Board Review and Approval <b>February 28, 2011</b>
D	Implement Remediation Confirmation Soil and Soil Vapor Sampling Workplan for Buildings I and III areas and Submit Results for Regional Board Evaluation <b>Upon approval of workplan as required by RWQCB</b>

REQUIREMENT	DUE DATE
<b>2</b>	<b>Short-term A-Zone Groundwater Monitoring Unrelated to ISTT Project.</b>
A	Quarterly monitoring of the following A-Zone wells, until approved well closure, with analyses for volatile organic compounds using US EPA Method 8260B:  <u>A-Zone</u> GW-4, GW-6, GW-9, GW-10, GW-12, GW-15  <u>Monitoring Period</u>  Quarterly each year

	REQUIREMENT	DUE DATE
	January to March April to June July to September October to December	The first report under this CAO is due <b>January 31, 2011.</b>  <u>Report Due Date</u>  <b>April 30<sup>th</sup></b> <b>July 31<sup>st</sup></b> <b>October 31<sup>st</sup></b> <b>January 31<sup>st</sup></b>

	REQUIREMENT	DUE DATE
3	<b>Develop and Implement Comprehensive, Plume wide, Groundwater Remediation Program and Prepare Performance Monitoring Reports for “B-Zone” and “C-Zone” aquifers as proposed in the April 15, 2010, PSCM Update, Groundwater Monitoring Activities, and Operational Basin Management Practices and related documents as presented in Exhibit B, to be performed by the City of Santa Monica.</b>	
A	Implement groundwater capture and treatment (remediation) as proposed <i>and</i> as presented in Exhibit B.	<b>July 1, 2011.</b>
B	Implement Groundwater Remediation Performance Monitoring and Reporting Program for all remaining on and off-site Groundwater not addressed by ISTT operation as described in Exhibit B.	<b>July 1, 2011</b>
C	Submit Quarterly Performance Monitoring Reports.  <u>Report Period</u> January to March April to June July to September October to December	Quarterly each year  <u>Report Due Date</u> <b>April 30<sup>th</sup></b> <b>July 31<sup>st</sup></b> <b>October 31<sup>st</sup></b> <b>January 31<sup>st</sup></b>  The first report under this Modified CAO is due <b>July 1, 2011.</b>