

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CLEANUP AND ABATEMENT ORDER NO. R4-2010-0202

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 1740 STEWART STREET
SANTA MONICA, CALIFORNIA

(FILE NO. 97-176)

Cleanup and Abatement Order (CAO) No. R4-2010-0202 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 Building II of its former Paper Mate® facility at 1740 Stewart Street, Santa Monica, California.

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

I. INTRODUCTION

1. Former Building II (Site) is a portion of the former Paper Mate® facility. Former Building II is immediately west of Stewart Street between Olympic Blvd. on the south and Pennsylvania Ave to the north, in Santa Monica (Figure 1). Building II is one of four main buildings of the former Paper Mate® facility. Buildings I, III, and IV are on an adjacent property to the south. The Building II property (Higgins Property) is currently owned by the Higgins Trusts (Higgins). Cleanup, abatement and monitoring activities related to former Paper Mate® facility Buildings I, III, and IV are addressed by Modified CAO No. R4-2008-0034.
2. The Discharger began operations at the Site in 1968, after it leased Building II from Higgins. Operations at Building II ended in 2002.
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 believe, 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 2.
4. VOCs have been detected in the subsurface soil, soil vapor, and groundwater underlying the Site.

II. PROPERTY OWNERSHIP AND LEASEHOLD INFORMATION

5. Based on the information submitted to the Regional Water , and clarified by Gillette, the Higgins 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 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 November 1967, Gillette leased a parcel of land (the Higgins Property) from the Higgins Brick and Tile Co. (later succeeded in interest by Higgins) on which the property owner constructed Building II for Gillette's use.
 - c. In 2000, Gillette sold the Paper Mate® business to the Sanford Division of Newell-Rubbermaid, Inc. (Newell-Rubbermaid). In December 2000, 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.
 - d. In 2002, Newell-Rubbermaid discontinued operations in Building II.
 - e. 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.

EVIDENCE OF CONTAMINATION AND BASIS FOR SECTION 13304 ORDER

6. **Chemical Usage and Storage During Manufacturing Operations at the Gillette Site**
- a. **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 3 shows the locations of the various operations and facilities within Building II.
 - b. 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.
 - c. 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.

- d. Aboveground storage tanks (ASTs) and underground storage tanks (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.
- e. Industrial wastewater was produced during ink manufacturing and nickel plating. In 2002, operations ceased in Building II and equipment maintenance moved to 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 and two USTs on the north side of Building II 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).
- b. 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.
- c. From August through October 2000, GeoSyntec conducted a baseline environmental assessment at the former Paper Mate® facility 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.
- d. In December 2000, Gillette also notified the LARWQCB of plans to perform further characterization of environmental conditions in the vicinity of the former Paper Mate® facility, and in April 2001 Gillette submitted the Work Plan for Expanded Site Assessment.
- e. GeoSyntec implemented a quarterly groundwater monitoring program in March 2002. In 2005, this program was revised to include additional analytes.
- f. From April to November 2006, GeoSyntec conducted further investigation of the vadose zone, A-zone groundwater and B-zone groundwater.
- g. 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 and Building II, which had been discovered during previous assessment work. The new data confirmed that the VOCs were limited in extent.
- h. From July to August 2007, Geomatrix conducted a coordinated groundwater monitoring event using wells near Buildings I, II, III, and IV, and at nearby environmental sites, to assess groundwater flow and VOC concentrations in groundwater in the vicinity of the former Paper Mate® facility. A total of 73 monitoring wells at five participating environmental sites were used 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.

- i. 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.

8. Source Elimination and Remediation Status at Former Gillette Site

- a. 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. The LARWQCB approved the discontinuation of remedial activities in this area in August 1998.
- b. As a result of the investigation that followed the failed leak test of three USTs in 1986 described earlier, Tank T-10 at Building II 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.
- c. 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 east of Building II in August 1998.
- d. In June 2007, GZA GeoEnvironmental submitted an untitled letter report, accompanied by a cover letter from LECG with the subject *Letter Report on Design of SVE Well for Higgins Trust Property, Former Paper Mate Facility, 1681 26th Street, Santa Monica, California*. This design report for a single-well SVE system to remediate a localized vadose zone VOC impact on the Higgins Property received Regional Water Board conditional approval in June 2007.
- e. In August 2007, Geomatrix submitted the document titled *Interim Risk-Based Remediation Goal for PCE and Supplemental Soil Vapor Assessment Results, Higgins Trusts Property* to the Regional Water Board. It proposed an interim risk-based, residential land use, remediation goal for PCE in soil vapor of 0.68 µg/L.
- f. In September 2007, the document titled *SVE System Construction Summary, Equipment Specifications and Operations Plan, Higgins Trusts Property, 1740 Stewart Street, Santa Monica, California* was received by the Regional Water Board. The Regional Water Board approved the document in October 2007. From September to October 2007, GeoEnvironmental installed the extraction well near the western side of Building II and extended lateral piping to Building III, where the SVE treatment system soil vapor handling and treating equipment were installed.

- h. The SVE system operated from October 2007 to October 2008, when asymptotic vapor conditions were reached. System effectiveness was significantly less than expected because of low soil permeability to air. A positive displacement, 20-horsepower blower, operating at 22 inches of mercury vacuum, produced between 4 and 10 cubic feet per minute of soil vapor. Vapor samples from the probes located 6 and 10 feet from the extraction well did not exhibit the declines anticipated from the pilot test.
- i. In October 2008, the Regional Water Board received *Response to RWQCB Comments on the Higgins Trusts Property, Second Quarter 2008 SVE System Monitoring Report and Proposed SVE Rebound Testing Plan, Higgins Trusts Facility, Former Paper Mate Facility, 1740 Stewart Street, Santa Monica, California*. In an October 2008 letter the Regional Water Board approved the proposed rebound test plan.
- j. Rebound testing at Building II of the former Paper Mate® facility was conducted from October 2008 until April 2009. The results were presented in the June 2009 document titled, *SVE System Quarterly Monitoring Report Second Quarter 2009 and Closure Assessment Plan, Higgins Trusts Property Former Paper Mate Facility, 1740 Stewart Street, Santa Monica, California*. Vapor samples from a vapor probe 6 feet from the extraction well containing 350 micrograms per liter ($\mu\text{g/L}$) PCE prior to system start up and 210 $\mu\text{g/L}$ to 410 $\mu\text{g/L}$ during rebound testing. Similarly, vapor samples from the probe 10 feet from the extraction well contained 27 $\mu\text{g/L}$ PCE prior to system start up and 2.1 $\mu\text{g/L}$ to 22 $\mu\text{g/L}$ during rebound testing. The vapor probe data indicate limited system effectiveness and the presence of significant residual VOCs in soil.
- k. In July 2009, the Regional Water Board received a document titled *SVE System Quarterly Monitoring Report Second Quarter 2009 and Closure Assessment Plan, Higgins Trusts Property Former Paper Mate Facility, 1740 Stewart Street, Santa Monica, California*. The closure assessment plan, which proposed soil and soil vapor sampling at 5 foot intervals to 25 feet below grade at three locations where elevated VOCs were detected in prior soil samples, was approved in an August 2009 Regional Water Board letter.
- l. In November 2009 the Regional Water Board received the *Remediation Confirmation Soil and Soil Vapor Sampling Report*, documenting soil and soil vapor sampling conducted in September 2009. The maximum concentration of PCE in soil was 57,700 $\mu\text{g/kg}$, in a sample from 5 feet below grade. The maximum concentration in soil vapor was 3,800 $\mu\text{g/L}$, also in a sample from 5 feet below grade. Very low permeability to soil vapor flow prevented collection of vapor samples deeper than 10 feet below grade.

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 in the vicinity of Building II of the former Paper Mate® facility. The Discharger has stored, used, and/or released VOCs and other materials, on the Site. Elevated levels of PCE and other contaminants have been detected in soil, soil vapor, and groundwater beneath the Site.
- 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

Soil and soil vapor PCE contamination in the immediate proximity of occupied commercial space is the primary condition requiring Site cleanup and abatement. The presence of PCE and other VOCs in shallow soil and soil vapor prevents unrestricted land use and continues to threaten groundwater quality beneath the site and vicinity.

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) is 5 µg/L for PCE. Groundwater samples collected from shallow groundwater beneath the site contained 7.0 µg/L PCE when sampled in April 2010.

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.

III. REQUIRED ACTIONS

IT IS HEREBY ORDERED, pursuant to California Water Code Section 13304, that:

1. Gillette shall conduct an analysis of options relating to contaminant concentrations in soil after shutdown of the SVE system and evaluate other remedial actions that are protective of both the human health and water resources. That analysis should include identification of potential remediation and management approaches and an analysis of feasibility and efficacy of each alternative.
2. The options and feasibility report shall be submitted to the Regional Water Board by no later than 45 business days after the date of this Order.
3. After consideration of available options, Gillette shall implement the approved selected approach and submit technical reports by due dates specified in future Regional Water Board letters or amendments to this Order. The technical reports may include, but are not limited to, remediation progress/status reports, a confirmation soil and/or soil vapor sampling workplan and report, and human health risk-assessment workplan and report.
4. Gillette shall continue soil remediation until VOC concentrations in soil and soil vapor are reduced to the Regional Water Board approved levels that are protective of both the human health and groundwater resource, or until further remediation is not feasible technically and economically.
5. Pursuant to Water Code section 13307.1, subdivision (c), the Regional Water Board may not issue a "no further action required" letter for the Site soil if the Regional Water Board determines that the Site/Property is not suitable for unrestricted use unless a land use restriction is recorded for the protection of public health, safety, or the environment with respect to that portion of the Site/Property that is not suitable for unrestricted use.
6. The Regional Water Board's authorized representative(s) 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.

7. 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.

IV. GENERAL PROVISIONS

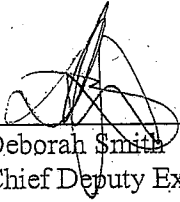
The following provisions shall apply:

1. This CAO compels performance of the Required Actions in Section III above in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, and other applicable plans, policies, and regulations.
2. The requirements of this Order are directed to soil only. Issues relating to groundwater cleanup and monitoring are addressed pursuant to Modified Cleanup and Abatement Order No. R4-2008-0034 issued on November 10, 2010.
3. 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.
4. If Gillette violates this CAO, Gillette may be liable civilly in a monetary amount provided by the California Water Code.
5. 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. 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.
6. 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.
7. 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 Required Actions in Section III above.
8. 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 Required Actions in Section III above. 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 Section III, Par. 10 of Modified Cleanup and Abatement Order No. R4-2008-0034.

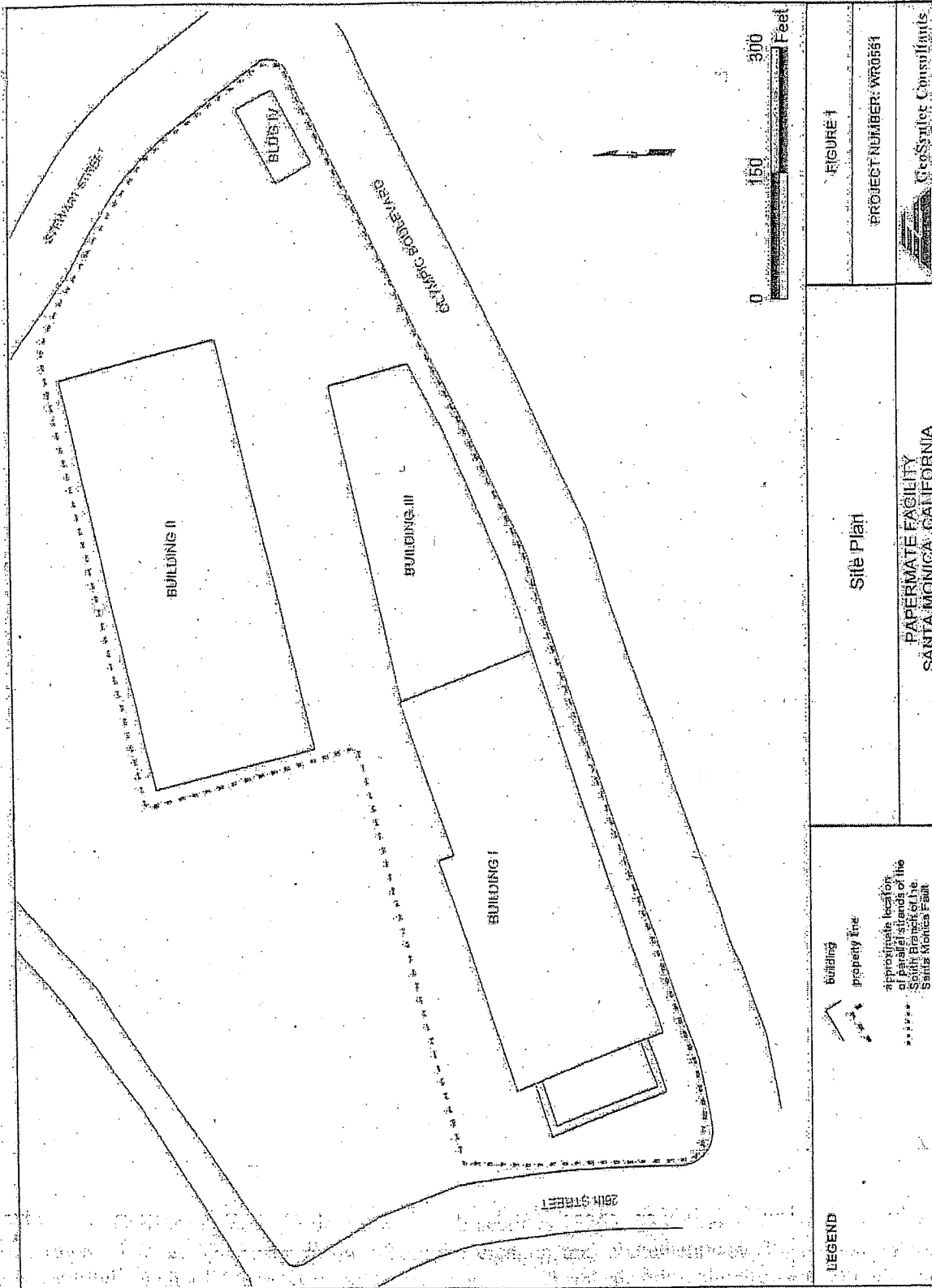
9. Section 13304 of the California Water Code allows the Regional Water Board to recover reasonable expenses from Gillette to oversee the Required Actions in Section III above.
10. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action 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 or will be provided upon request.
11. All correspondence with respect to this Site between the Regional Water Board and Gillette shall be provided to the City of Santa Monica by the sender.





Ordered by:



Deborah Smith
Chief Deputy Executive Officer

Date: November 10, 2010



<p>FIGURE 1</p>	<p>Site Plan</p>	<p>LEGEND</p> <p>  Building  Property Line  Approximate location of parallel strands of the South Branch of the Santa Monica Fault </p>
<p>PROJECT NUMBER: WR0561</p>		<p>PAPERMATE FACILITY SANTA MONICA, CALIFORNIA</p>
		<p>GeoStarlet Consultants</p>

DATE: 11/11/09

