



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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Arnold Schwarzenegger
Governor

December 3, 2009

Mr. Ross Ruley
1601 Matthews Avenue
Manhattan Beach, CA 90266

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER REMEDIATION AT PETROLEUM HYDROCARBON FUEL AND/OR VOLATILE ORGANIC COMPOUND IMPACTED SITES – 15407 SOUTH HAWTHORNE BOULEVARD, LAWDALE, CALIFORNIA (ORDER NO. R4-2007-0019, SERIES NO. 053, CI NO. 9136) (UST FILE NO. I-13868)

Dear Mr. Ruley:

On October 18, 2009, your consultant, CGC Environmental, Inc. (CGC), submitted to us on your behalf a request to modify the existing General Waste Discharge Requirements (WDRs) Order No. R4-2005-0030 for coverage under Order No. R4-2007-0019 to inject activated persulfate (Klozur®) at the subject site (the site) to remediate fuel constituents in the groundwater beneath the site.

The site is located on the southwest corner of the intersection of West 154th Street and Hawthorne Boulevard in the City of Lawndale. The site is currently owned by Automax and is occupied by a used automobile dealership.

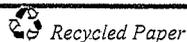
The site was originally occupied by Powerene, a commercial fueling station that operated three 10,000-gallon gasoline underground storage tanks (USTs) and one 1,000-gallon waste oil UST. In 1983, three additional 12,000-gallon gasoline USTs and one 10,000-gallon diesel UST were installed. In May 1991, all USTs were removed from the site.

There are currently nine groundwater monitoring onsite and offsite. Groundwater monitoring has been conducted since 1996. The latest monitoring event in January 2009 detected TPHg up to 135,000 µg/L, benzene up to 14,400 µg/L, and MTBE up to 3,900 µg/L. Monitoring data indicate that the contaminant plume has migrated offsite onto Hawthorne Boulevard. The depth to groundwater was 14 ft bgs and the groundwater flow direction was due northeast.

To remediate the fuel constituents in the groundwater beneath the site, CGC submitted an interim remedial action Plan (IRAP) dated September 23, 2009. In the IRAP, CGC proposed to drill four additional borings to a depth of 50 feet bgs prior to initiating persulfate injection activities. The target interval for activated persulfate injection is between 15 to 30 feet bgs which is the most heavily impacted zone beneath the site. Regional Board staff approved the IRAP on October 30, 2009.

Staff has determined that the discharge meets the conditions specified in Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation At Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Mr. Ross Ruley
15407 Hawthorne Blvd.

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December 3, 2009

Chromium Impacted Sites (General WDRs)," adopted by the Los Angeles Regional Water Quality Control Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2007-0019, Standard Provisions, and the amended Monitoring and Reporting Program No. 9136 . Therefore, the prior Order No. R4-2005-0030 is hereby terminated. The WDRs issued shall not be terminated until Regional Board staff determines the WDRs are no-longer needed for the site cleanup.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board, please reference Compliance File No. CI-9136 to assure that the reports are directed to the appropriate staff. Do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

We are sending a copy of Order No. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone who requests it.

If you have any questions, please contact Ms. Rebecca Chou at (213) 620-6156. Questions regarding the underground storage tank issues should be forwarded to Arman Toumari at (213) 576-6708.

Sincerely,

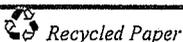


Tracy J. Egoscue
Executive Officer

Enclosures: 1. Board Order No. R4-2007-0017
2. Monitoring and Reporting Program No. CI-9136

cc: Hari Patel, SWRCB, Underground Storage Tank Cleanup Fund
Nancy Matsumoto, Water Replenishment District of Southern California
Tim Smith, Los Angeles County Department of Public Works
Norman Colby, CGC

California Environmental Protection Agency



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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. CI-9136
FOR
15407 HAWTHORNE BOULEVARD, LAWNSDALE, CA
ENROLLMENT UNDER REGIONAL BOARD
ORDER NO. R4-2007-0019
SERIES NO. 053

I. REPORTING REQUIREMENTS

- A. Mr. Ross Ruley (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment (November 9, 2009) under Regional Board Order No. R4-2007-0019. The first monitoring report under this Program is due by January 15, 2010.

Monitoring reports shall be received by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

- B. If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- B. By March 1st of each year, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).
- C. Laboratory analyses—all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- D. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional

Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.

- E. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- F. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- G. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- H. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- I. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- J. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- K. The Discharger should not implement any changes to the Monitoring and Reporting Program prior to receiving Executive Officer's written approval.

II. INJECTION MONITORING REQUIREMENTS

Injection of Activated Persulfate:

The quarterly reports shall contain the following information regarding the injection activities. If there is no injection during any reporting period, the report shall so state:

1. Location map showing injection points.
2. Written summary defining:
 - Depth of injection points;
 - Quantity of persulfate injected at each injection point; and
 - Total amount of persulfate injected at site.
3. Quarterly visual inspection at each injection well shall be conducted to evaluate the well casing integrity for a period of three months after each injection. The quarterly report shall include a summary of the visual inspection.
4. To avoid groundwater monitoring network reduction, data bias, and well screen clogging or alteration, no groundwater monitoring wells shall be used as injection points for persulfate during the pilot or full scale remediation.
5. Due to the shallow groundwater beneath the site, injection activities shall not cause material surfacing.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities. The following shall constitute the monitoring program for up-gradient wells MW-13; down-gradient well MW-14; and source wells MW-2, MW-3, and MW-4 (see figure 2). A baseline monitoring and sampling will be conducted prior to the proposed persulfate injections from the existing monitoring wells. Baseline monitoring will establish the initial conditions with respect to the contaminant levels. These sampling stations shall not be changed and any proposed change of monitoring locations shall be identified and approved by the Regional Board Executive Officer (Executive Officer) prior to their use. The Discharger shall conduct baseline sampling from existing wells one or two weeks prior to persulfate injection and regular sampling with the required frequencies from the up-gradient, down-gradient, and source monitoring wells for the following constituents:

<u>CONSTITUENT</u>	<u>UNITS</u> ¹	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH ²	PH units	Grab	Quarterly
Temperature ²	°F	grab	Quarterly
Oxidation-reduction potential ²	Milivolts	grab	Quarterly
Specific conductivity ²	µmhos/cm	grab	Quarterly
Ferrous iron	µg/L	grab	Quarterly
Dissolved Oxygen ²	µg/L	grab	Quarterly
MTBE	µg/L	grab	Quarterly
Tert-Butyl Alcohol (TBA)	µg/L	grab	Quarterly
Di-isopropyl Ether (DIPE)	µg/L	grab	Quarterly
Ethyl-t-Butyl Ether (ETBE)	µg/L	grab	Quarterly
Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Quarterly
Acetone	µg/L	grab	Quarterly
Formaldehyde	µg/L	grab	Quarterly
Total Petroleum Hydrocarbons as gasoline (TPHg)	µg/L	grab	Quarterly
Carbon tetrachloride	µg/L	grab	Quarterly
Benzene	µg/L	grab	Quarterly
Ethylbenzene	µg/L	grab	Quarterly
Toluene	µg/L	grab	Quarterly
Total xylenes	µg/L	grab	Quarterly
Methane	µg/L	grab	Quarterly
Total organic carbon	µg/L	grab	Quarterly
Total dissolved solids	mg/L	grab	Quarterly
Sulfate	mg/l	grab	Quarterly
Chloride	mg/L	grab	Quarterly
Boron	mg/L	grab	Quarterly
Carbon dioxide	mg/L	grab	Quarterly

Manganese	µg/L	grab	Quarterly
Total iron	µg/L	grab	Quarterly
Alkalinity	µg/L	grab	Quarterly
Chromium (VI)	mg/L	grab	Quarterly ³
Total Chromium	mg/L	grab	Quarterly ³

¹ mg/L: milligrams per liter; µg/L: micrograms per liter; µmhos/cm: microohms per centimeter; °F: degree Fahrenheit.

² Field instrument will be used to test for this constituent.

³ The Discharger is required to monitor for total chromium and chromium six in the baseline, second and fourth quarterly sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored quarterly thereafter.

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

IV. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the _____ day of _____ at _____.

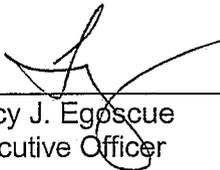
_____(Signature)

_____(Title)"

VI. PUBLIC DOCUMENTS

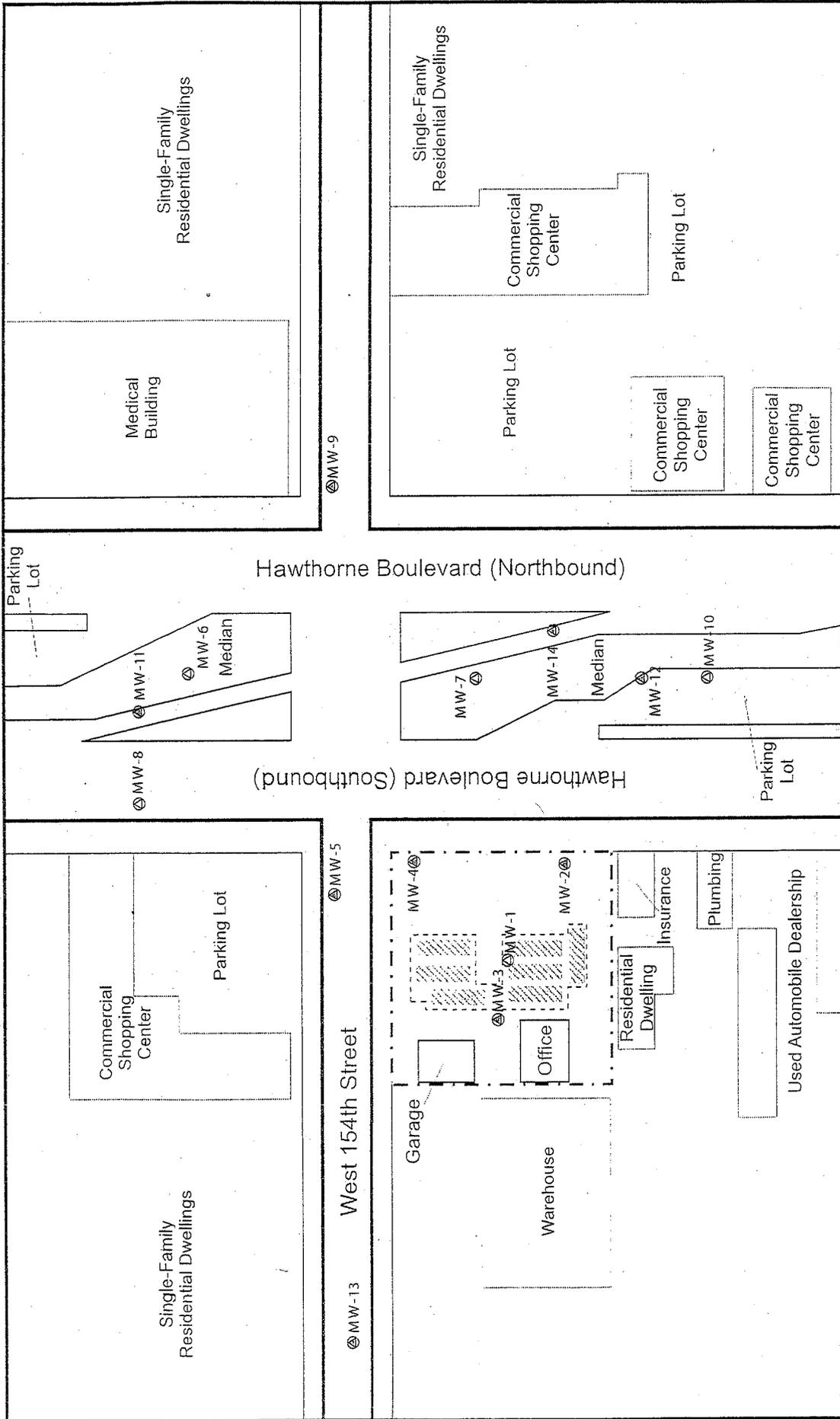
These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:



Tracy J. Egoscue
Executive Officer

Date: December 3, 2009



LEGEND

- Property Line
- MW-14 Monitoring Well
- MW-10 Destroyed Monitoring Well
- Former Gasoline or Diesel Underground Storage Tank
- Former Tankhold

CGC Environmental, Inc.

Site Plan

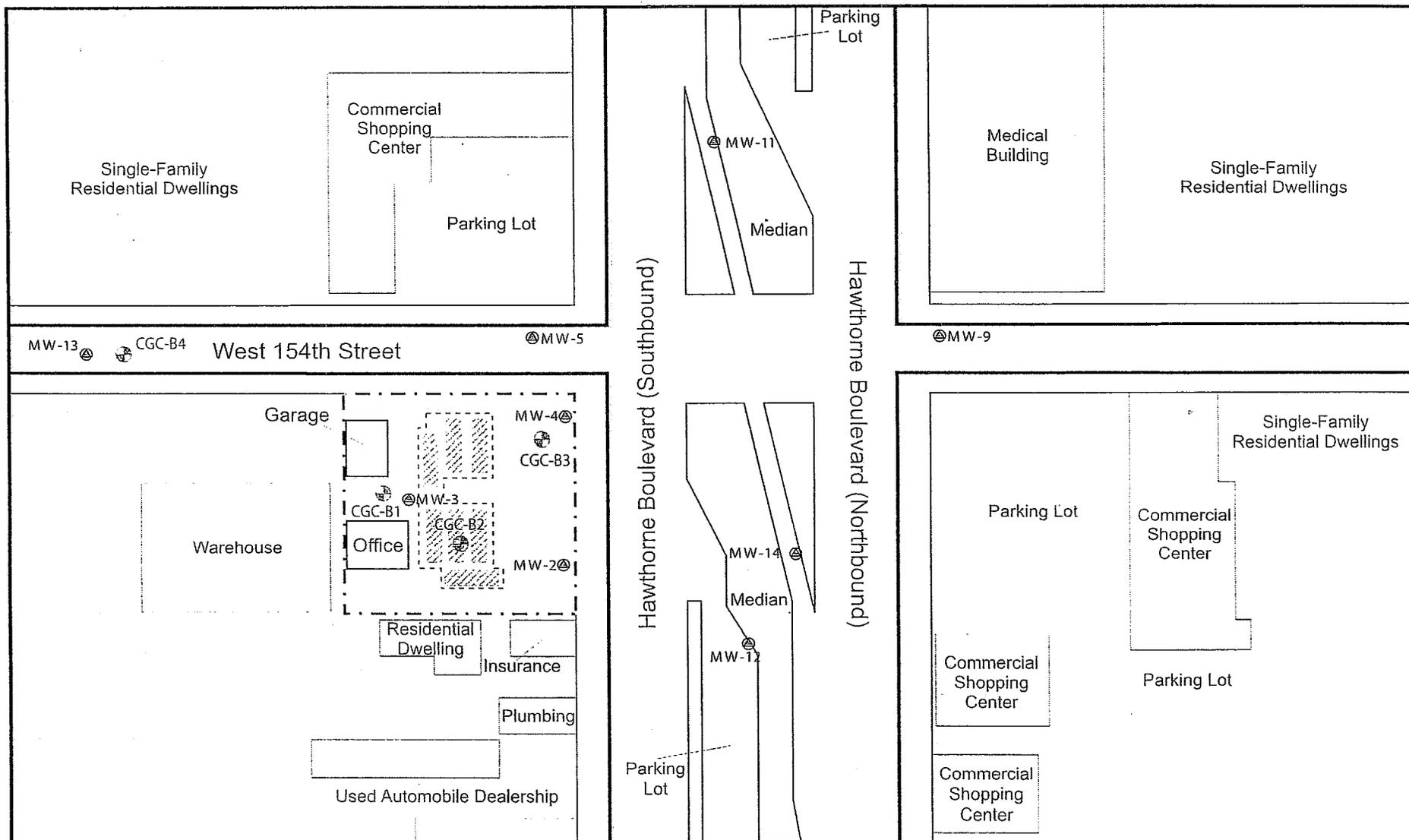
Former Ross Ruley Property
15407 Hawthorne Boulevard
Lawndale, California 90260

September 2009

Approximate Scale
1" = 80'

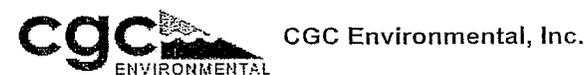
Figure 2

Source: AEI Consultants, Addendum to the Interim Remedial Action Plan, March 10, 2008



LEGEND

- N
- CGC-B1 Proposed Soil Boring Location
- Property Line
- MW-14 Monitoring Well
- Former Gasoline or Diesel Underground Storage Tank
- Former Tankhold



Proposed Boring Locations

Former Ross Ruley Property
 15407 Hawthorne Boulevard
 Lawndale, California 90260

Source: AEI Consultants, Addendum to the Interim Remedial Action Plan, March 10, 2008

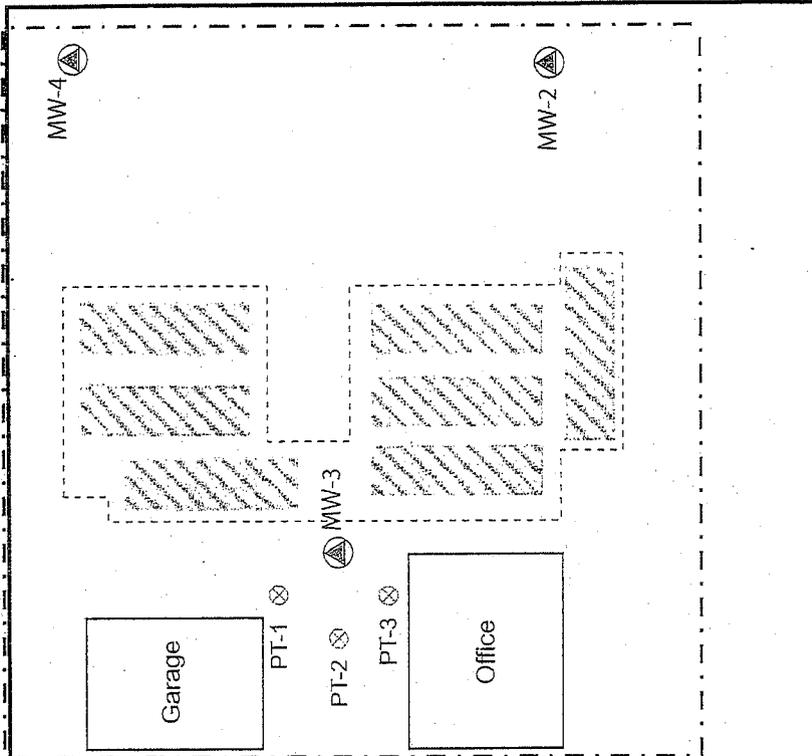
Approximate Scale
 1" = 80'

September 2009

Figure 3

West 154th Street

Hawthorne Boulevard (Southbound)



Approximate Groundwater Flow Direction



LEGEND

- PT-1 Proposed Pilot Test Injection Location (activated persulfate)
- MW-14 Monitoring Well
- Property Line
- Former Gasoline or Diesel Underground Storage Tank
- Former Tankhold

Approximate Scale
1" = 30'

cgca ENVIRONMENTAL
CGC Environmental, Inc.

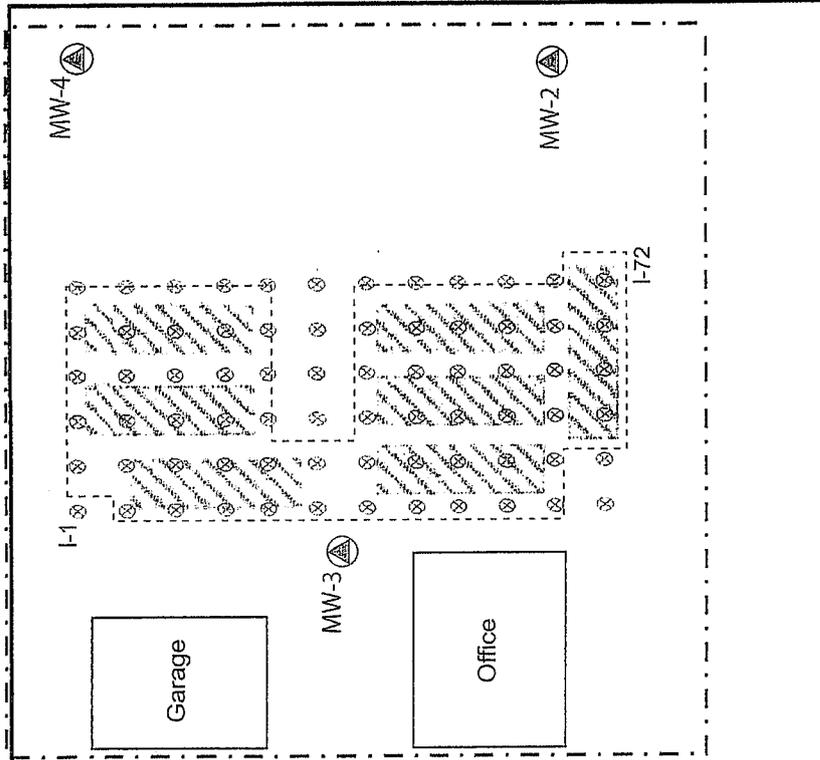
Proposed Pilot Test Injection Locations
Former Ross Ruley Property
15407 Hawthorne Boulevard
Lawndale, California 90260

September 2009

Figure 4

Source: AEI Consultants, Addendum to the Interim Remedial Action Plan, March 10, 2008

West 154th Street



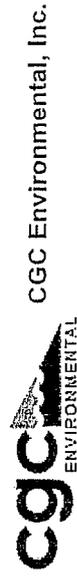
Hawthorne Boulevard (Southbound)

Notes: Subsequent full-scale injection locations (if completed) will be offset approximately 3 feet from previous locations.
 Injection borings will be labeled I-1 through I-72 sequentially from NW to SE.

LEGEND

-  I-1 Proposed Full Scale Injection Locations (activated persulfate)
-  MW-14 Property Line
-  MW-14 Monitoring Well
-  Former Gasoline or Diesel Underground Storage Tank
-  Former Tankhold

Source: AEI Consultants, Addendum to the Interim Remedial Action Plan, March 10, 2008
 Approximate Scale
 1" = 30'



CGC Environmental, Inc.

Proposed Full Scale Injection Locations

Former Ross Ruley Property
 15407 Hawthorne Boulevard
 Lawndale, California 90260

September 2009

Figure 5