CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. R5-2008-0823
FOR
I STREET DEVELOPMENT COMPANY
YOLO COUNTY

The I Street Development Company (ISD) site is located at 920 Third Street in Davis (Site). The Site is east of the California Northern Railroad Company tracks, northeast of the Union Pacific Railroad (UPRR) Company Davis Amtrak Station, and south of Third Street. The Site owners and former operators are identified as Donald M. Miller, The I Street Development Company, and Dr. Paul S. Moller and his companies, M Research, Discojet Corporation, and Supertrap Industries (hereafter Dischargers).

Past operations at the site include a car dealership, and a small engine and noise suppressant equipment manufacturing facility. These operations have resulted in the discharge to soil and groundwater of trichloroethylene (TCE), and other volatile organic compounds (VOCs). This pollution has impaired the beneficial uses of the water resource underlying and in the vicinity of this site. First groundwater is encountered between 30 and 40 feet below ground surface (bgs), depending on season and annual rainfall, and usually stabilizes at approximately 32-34 feet bgs. Regional groundwater flow direction is currently to the southeast. Local groundwater flow is more variable, and generally has ranged in direction from easterly to southerly in the past, predominantly being southeasterly. The Site owners have implemented remedial actions to clean up soil and groundwater pollution at the Site.

This revised Monitoring and Reporting Program (MRP) is issued pursuant to Section 13267 of the California Water Code and is necessary to delineate groundwater pollutant plumes, and evaluate trends and behavior of chemical constituents detected in groundwater. Existing data and information about the Site show the presence of various chemicals, including TCE, 1,1-dichloroethene (1,1-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and cis-1,2-dichloroethene (cis-1,2-DCE), potentially resulting from past disposal practices at this Site. In addition, historically tetrachloroethlene (PCE), total petroleum hydrocarbons as gasoline (TPHg), TPH as motor oil (TPHmo), and additional fuel constituents including benzene, toluene, ethylbenzene and xylene (BTEX) have been detected at the Site resulting from past practices at adjacent sites, including Cable Car Wash (CCW) site.

The Dischargers shall not reduce any sampling frequency delineated in this MRP unless and until a revised MRP is issued by the Executive Officer. This revised MRP replaces the requirements listed in MRP No. R5-2008-0803, which was issued on 9 July 2008.

Prior to construction of any new groundwater monitoring or extraction wells, ISD shall submit plans and specifications to the Central Valley Water Board for review and approval.

GROUNDWATER MONITORING

As shown on Figure 1, fifteen (15) monitoring wells are to be included in this revised MRP. Eleven (11) wells (ISD-1, ISD-2A, ISD-2B, ISD-3A, ISD-3B, ISD -3C, 1SD-4A, ISD 4C, ISD-5B, ISD 5C, and MW-8) are located on-site. Additionally, ISD owns four (4) off-site wells (MW-9, MW-10, MW-11, and MW-12) that are to be included.

The groundwater monitoring program for the fourteen (14) of the fifteen (15) wells, and any wells installed subsequent to the issuance of this revised MRP, shall be conducted on a semi-annual schedule. Monitoring well MW-9 shall be monitored annually. Monitoring wells shall be sampled during the first and third quarters and analyzed for constituents as shown in Table 1. All results shall be reported during the second and fourth quarters. Monitoring well MW-9 shall be monitored on an annual basis during the third quarter, and the results shall be submitted with the second semi-annual report. Constituents to be monitored, analytical methods, and detection limits shall follow the specifications listed in the table below. Newly installed wells shall be sampled, at a minimum, for four consecutive quarters after which the monitoring frequency may be adjusted, based on evaluation of the data. In the event of installation of either a soil vapor extraction or groundwater extraction system, the volume of extracted soil vapor and extracted groundwater shall be provided in subsequent monitoring reports. Sample collection and analysis shall follow standard EPA protocol.

Table 1: Analytical methods

Constituents	EPA Analytical Method[1]	Maximum Practical Quantitation Limit(µg/L)[2]
Volatile Organic Compounds	EPA 8260B (List 9)	0.5

[1] If necessary, equivalent analytical methods may be used with the concurrence of the Central Valley Water Board staff.

[2] All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as an estimated value.

Field monitoring and analysis shall be conducted each time a monitoring well is sampled. The monitoring and analysis of field parameters shall be performed as specified in Table 2.

Table 2: Field Sampling Requirements

Parameters	Units	Type of Sample
Groundwater elevation	Feet, Mean Sea Level	Measurement
Oxidation-reduction potential	Millivolts	Grab
Electrical conductivity	µhmos/cm	Grab
Dissolved oxygen	mg/L	Grab
pH	pH Units (to 0.1 units)	Grab
Temperature	°C	Grab
Volume purged	Gallons	Measurement

REPORTING

When reporting data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly compliance with this Order. In addition, ISD shall notify the Central Valley Water Board within 48 hours of any unscheduled shutdown of any soil vapor and/or groundwater extraction system.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by, or under the supervision of, a registered professional and signed by the registered professional.

The Discharger shall submit semi-annual electronic data reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30. The semi-annual reports shall be submitted by hard copy to the Regional Water Board, and electronically via the internet to the Geotracker database system by **1 May,** and **1 November** each year until such time as the Executive Officer determines that the reports are no longer necessary. Each semi-annual report is to include the following minimum information:

(a) A description of the semi-annual groundwater sampling event, and field logs. At a minimum, field logs shall contain water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.

(b) Groundwater elevation contour maps for all groundwater zones, if applicable, including a Rose Diagram showing historical patterns of gradient flow direction.

(c) Isoconcentration contaminant contour maps for all groundwater zones, if applicable.

(d) A table showing well construction details such as well number, groundwater zone being monitored, coordinates (northings and eastings), ground surface elevation, reference

elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom.

(e) A table showing historical lateral and vertical (if applicable) flow directions and gradients.

(f) Cumulative data tables containing depth to groundwater, and water quality analytical results.

(g) A copy of the laboratory analytical data report.

(h) If applicable, the status of any ongoing remediation, including cumulative information on the mass of contaminant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.

(i) If applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.

An annual interpretation of the data collected and activities conducted during the monitoring year shall be submitted to the Board by **1 November** of each year, in combination with the Second Semi-Annual Monitoring Report. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation, and shall contain the following minimum information:

(a) Both tabular and graphical summaries of all data obtained during the current sampling year.

(b) Groundwater contour maps and contaminant concentration maps containing all data obtained during the current sampling year.

(c) A discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells.

(d) An analysis of whether the contaminant plume is being captured by an extraction system or is continuing to spread.

(e) A description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the contaminants, and plans to improve remediation system effectiveness.

(f) The anticipated date for completion of cleanup activities.

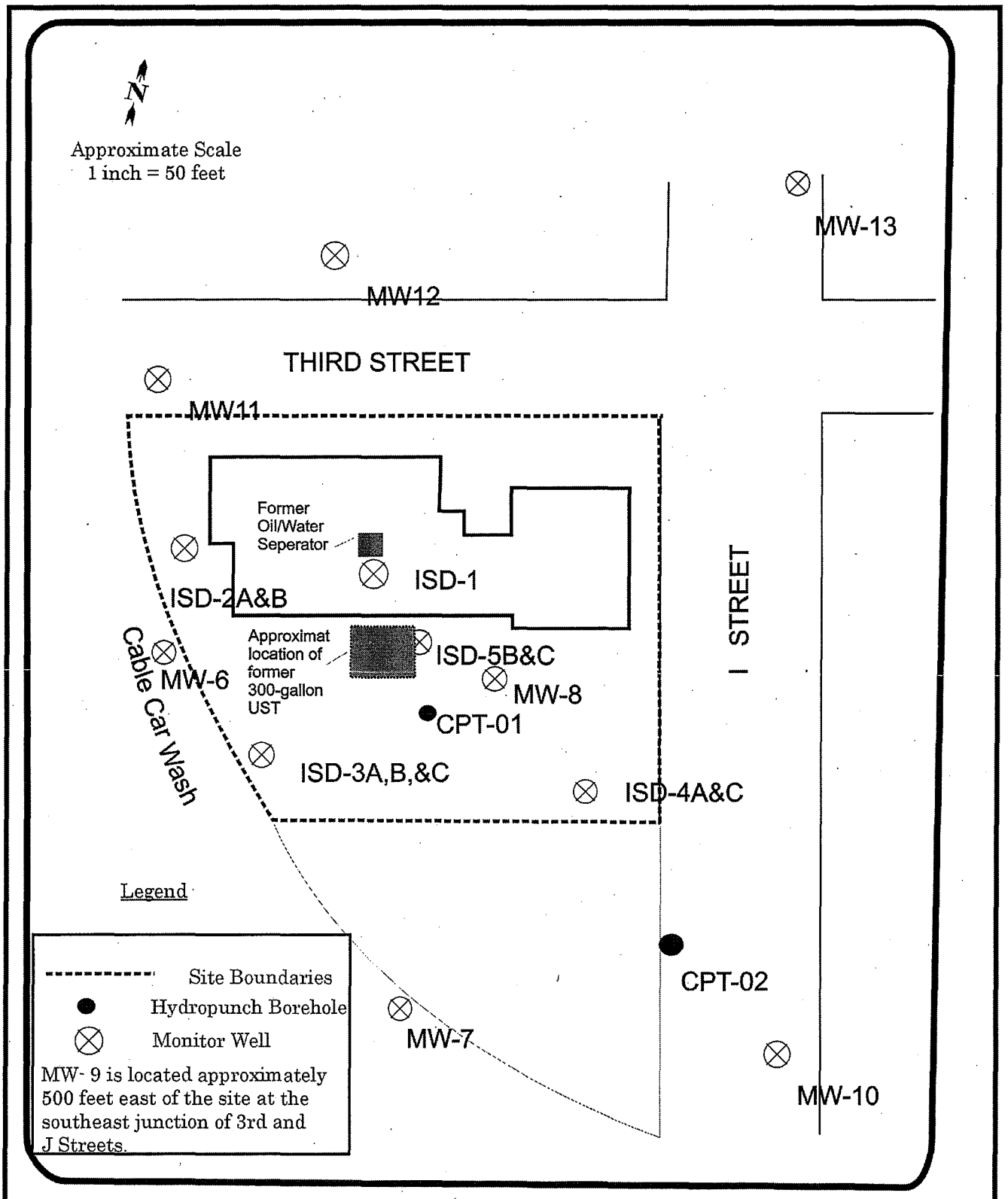
(g) An identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

(h) If desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Board. ISD shall implement the above monitoring program as of the date of the Order.

Ordered by: Andrew Altevogt
for PAMELA C. CREEDON, Executive Officer

9/19/13
(Date)



I Street Development, 920 Third Street, Davis Yolo County

FIGURE 1