

**San Francisco Bay Regional Water Quality Control Board**

**Redwood Court Proposed Cleanup Plan  
Xtra Oil DBA Shell Station  
3495 Castro Valley Boulevard, Castro Valley, California**

**September 2016**

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**Summary**

The San Francisco Bay Regional Water Quality Control Board (Regional Water Board) would like to inform the public of the proposed plan to clean up contaminated groundwater at multi-family residential units at Redwood Court. The contaminated groundwater migrated from the Xtra Oil DBA Shell Station located on Castro Valley Boulevard. The Regional Water Board is the lead regulatory agency overseeing the investigation and cleanup of this Site.

**Site Background**

The Site is an active gasoline station located at 3495 Castro Valley Boulevard, at the southwest corner of the intersection of Castro Valley Boulevard and Redwood Road (see figure below). Fuel leaks from former Underground Storage Tanks (USTs) contaminated the groundwater and the soil at the Site during the course of business operations. The contaminated groundwater migrated from the Site to the south, beneath the neighboring shopping center and multi-family residential units at Redwood Court.

**Site Investigations**

In August 1992, during replacement of the former USTs, petroleum contamination of the soil and groundwater caused by leaking USTs was discovered. Since then, petroleum hydrocarbons and free product (petroleum hydrocarbon contaminant that floats as a

separate layer) has been found in groundwater southwest of the gasoline station beneath the multi-family residential units at Redwood Court, and to the southeast beneath Redwood Road (see figure below). Several soil, groundwater, and soil vapor investigations have been completed at the Site to evaluate the amount of contamination. Groundwater monitoring wells have been installed onsite and offsite to monitor groundwater flow direction and contaminant concentration. As a result, the extent of groundwater contamination has been identified.

In 2014, soil vapor samples were collected from soil vapor wells at several locations at Redwood Court. This investigation was completed to determine if the soil vapors had migrated to the multi-family residential units at Redwood Court. In 2015-2016, as a result of the soil vapor investigation, air samples were collected from crawl space spaces from beneath the buildings at Redwood Court. Indoor air samples were also collected from the buildings which do not have spaces to evaluate potential human health risks from petroleum vapors from the below the surface to indoor air.

### **Mitigation Measures and Cleanup Actions**

In late 2015, vapor barriers were placed beneath four buildings with crawl spaces at Redwood Court to reduce vapors from entering the spaces under the buildings. Also, cracks discovered in the floor of the garage of the most affected building were sealed. Follow-up testing of air beneath the buildings showed that the vapor barriers successfully reduced the vapor concentrations under the buildings.

In 2016, air filtration units were installed in the ground floor apartments in two buildings without crawl spaces. Follow-up indoor air sampling confirmed that the air filtration units were effective in reducing the vapor concentrations in the apartments. Periodic air sampling is being conducted in crawl spaces and ground floor apartments to confirm the effectiveness of the vapor barriers and filtration units in reducing vapor concentrations in these two residential buildings.

In June 2016, additional free product observation wells were installed at Redwood Court. Absorbent socks were placed in these wells to remove free product. All free product observation wells are monitored periodically to make sure that gasoline in a free product form is not present.

### **Proposed Cleanup Plan**

In August 2016, the discharger submitted a draft cleanup plan to address petroleum contamination in the groundwater and soil vapor beneath Redwood Court in order to end the current vapor mitigation measures.

The cleanup plan consists of three elements:

- 1) Construction of three horizontal wells for removing groundwater and free product from beneath the homes in the northwestern portion of Redwood Court. Sloped wells will drain contaminated

groundwater and free product to a liquid collection sump. Contaminated groundwater will be discharged to the sanitary sewer under a permit. Free product will be collected in a holding tank and periodically removed for disposal at an approved offsite facility.

- 2) Once the horizontal wells have removed the contamination from the shallow soil beneath the homes, soil vapor extraction (SVE) feasibility testing will be conducted using the horizontal wells to remove petroleum vapors.
- 3) As soon as the soil vapor removal effectiveness has been proven, this cleanup approach will be used to other areas of Redwood Court to cleanup areas where potential vapor intrusion may be a concern.

### **30-Day Public Comment Period**

The public is invited to comment on the *Feasibility Study and Cleanup Action Plan (Redwood Court)*. Comments should be submitted by October 28, 2016, and sent to:

Regional Water Board Case Manager  
Ms. Barbara Sieminski, P.G.  
1515 Clay Street, Suite 1400  
Oakland, CA, 94612  
[BSieminski@waterboards.ca.gov](mailto:BSieminski@waterboards.ca.gov)  
Tel: (510) 622-2423

### **For More Information**

Site documents and groundwater quality information are available for review online via GeoTracker, the Water Board's site cleanup database:

[http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0600101254](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600101254)

You can also review this information at the Water Board office at 1515 Clay Street, Suite 1400, Oakland, CA 94612.

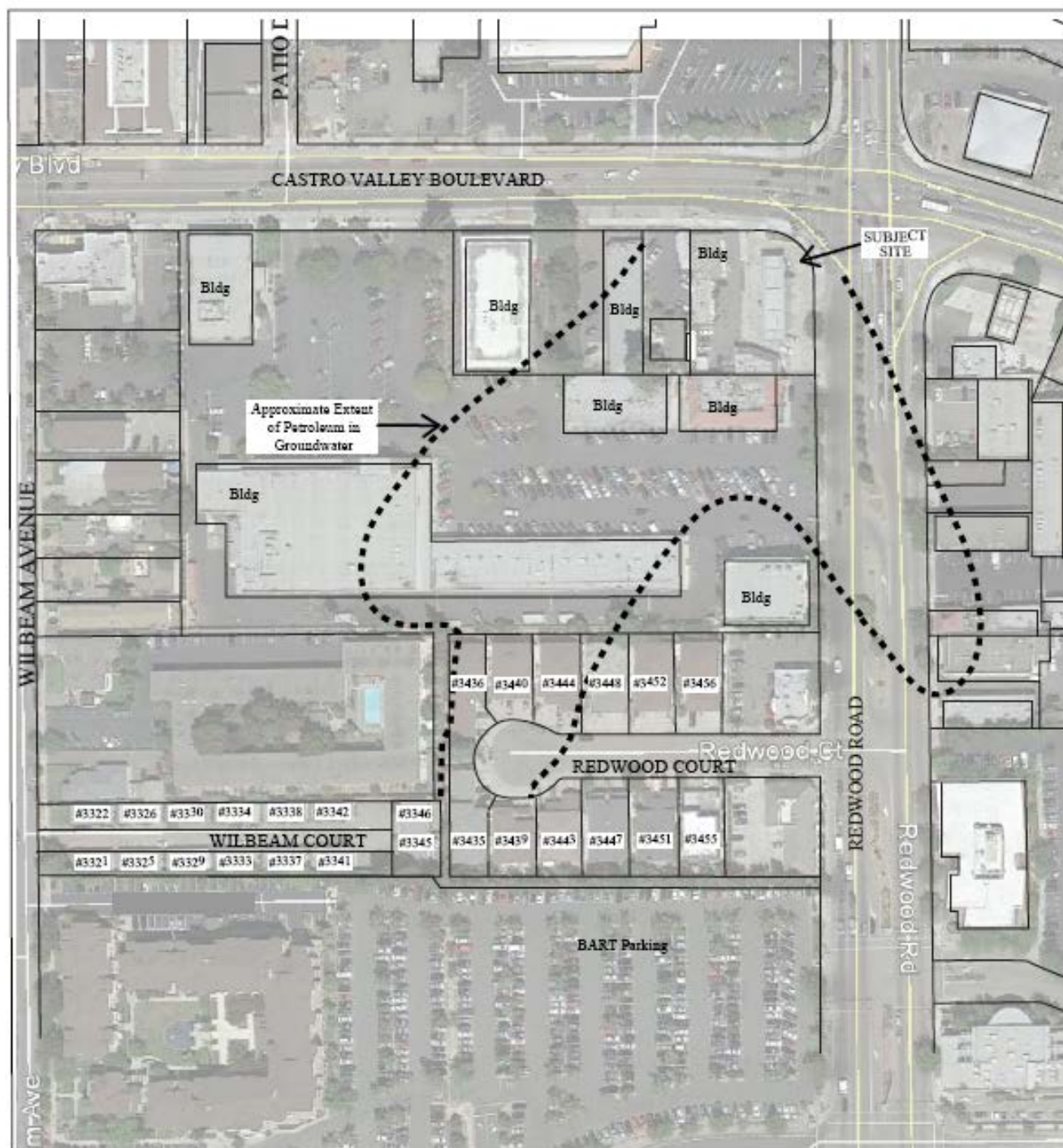


Figure 1  
 Site Vicinity Aerial Photograph Showing Subject Site and Redwood Court Property Locations  
 Xtra Oil Company  
 3495 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 Castro Valley Sanitation  
 District, undated,  
 and Google Earth, dated August 2012

P&D Environmental, Inc.  
 55 Santa Clara Avenue, Suite 240  
 Oakland CA 94610

0 75 150  
 Approximate Scale in Feet

