



Department of
Toxic Substances
Control

*Preventing
environmental
damage from
hazardous waste,
and restoring
contaminated
sites for all
Californians.*



State of California



California
Environmental
Protection Agency

Fact Sheet, December 2006

DTSC Proposes Cleanup Plan for PG&E St. Helena Former MGP Site

The Department of Toxic Substances Control (DTSC) is proposing a cleanup plan for the 0.75-acre St. Helena Former Manufactured Gas Plant site (Site). A recent investigation found that the soil and groundwater at the Site is contaminated with polycyclic aromatic hydrocarbons, volatile organic compounds, total petroleum hydrocarbons, arsenic, and lead. The Site is owned by the Pacific Gas and Electric Company (PG&E) and is located at 1301-1302 Mitchell Drive, St. Helena, California.

PG&E is cleaning up the site under a Voluntary Cleanup Agreement, with DTSC overseeing the investigation and environmental cleanup activities. Cleanup of the property will allow for possible redevelopment into public parking for the City of St. Helena.

The Draft Remedial Action Plan (Draft RAP) describes the previous investigations and DTSC recommendations to clean up contaminated soil and groundwater at the Site. The Draft RAP and the California Environmental Quality Act (CEQA) Initial Study and proposed Negative Declaration are available for your review at the information repositories listed on page 6 of this fact sheet. If you have questions about this site, please contact Eileen Belding, DTSC Project Manager, at (510) 540-3844 or by e-mail at ebelding@dtsc.ca.gov. This fact sheet will provide you with a brief summary of the project.

Public Comment Period December 6, 2006 to January 24, 2007

We encourage you to review and comment on the Draft RAP and the CEQA Initial Study and proposed Negative Declaration. DTSC will hold a 50-day public comment period **beginning December 6, 2006 and ending January 24, 2007**. All comments must be submitted to DTSC no later than 5:00 p.m. on January 24, 2007. Please mail written comments to: Eileen Belding, Project Manager, DTSC, 700 Heinz Avenue, Berkeley, California 94710-2721. Comments may also be submitted by e-mail to ebelding@dtsc.ca.gov. All written comments must be either postmarked or received by 5:00 p.m. on January 24, 2007.

Public Meeting January 10, 2007

DTSC will consider public comments during a public meeting to be held on January 10, 2007 at 7:00 p.m. The meeting will be held in the Vintage Hall Board Room at St. Helena High School, 465 Main Street, St. Helena, California. For information about public participation and community involvement, please contact Nancy Cook, DTSC Public Participation Specialist, at (510) 540-3923 or by e-mail at ncook@dtsc.ca.gov.



Site Location

The Site is located one block southwest of Highway 29 (Main Street) at the intersection of Mitchell Drive and Oak Avenue in St. Helena. (See Site Location Map, page 3). The downtown shopping area in St. Helena runs by the Main Street/Mitchell Drive intersection near the Site. The property is surrounded by a fence and is largely unpaved, with the exception of a few minor concrete foundations.

Site History

The Site was operated by the St. Helena Gas Company as a manufactured gas plant (MGP) and produced gas for lighting, cooking and heating from 1883 until 1930. The MGP was initially operated using coal as the primary fuel. In 1899, the operations were modified to process crude oil. Oil tanks were used to store the crude oil on the northwest perimeter of the site. The gas that was manufactured from the crude oil was stored in a gas holder at the north end of the site.

PG&E took title to the property in 1936 and the Site was used as an electric substation until 1989. Since 1990, the Site has been vacant. A pilot study groundwater and soil-vapor extraction and treatment system operated on the Site from November 2005 to August 2006. (See Pilot Study description, page 4.)

Site Investigations

For approximately 10 years, with oversight from DTSC and the Regional Water Quality Control Board (RWQCB), soil and groundwater investigations have been performed to determine the nature and extent of contamination at the Site. These investigations indicate that MGP residues, primarily total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), arsenic, and lead have contaminated the soil and/or groundwater at the Site. The soil is impacted at depths ranging from the ground surface to approximately 30 feet below ground surface throughout various areas of the Site. The groundwater is impacted to a depth of approximately 70 feet. Surface water samples collected from nearby Sulphur Creek have not

contained detectable concentrations of contaminants associated with the Site.

Chemicals were detected above health-based cleanup goals or taste and odor thresholds in six areas on the Site. These areas are described and labeled Areas A to F in the fact sheet. (See Map with Cleanup Areas, page 3).

Area A: Shallow soil and groundwater (less than 5 feet below ground surface) throughout the Site.

- The soil contains PAH (naphthalene and benzo(a)pyrene equivalents), arsenic, lead, and TPH (gas, diesel, and motor oil).
- The groundwater contains arsenic and TPH (gas, diesel, and motor oil).

Area B: Deep saturated soil and groundwater (9 to 30 feet below ground surface) in the area of the former gas holder.

- The soil contains PAH (anthracene and naphthalene), VOCs (benzene, ethylbenzene, toluene, and xylenes), and TPH (gas and diesel).
- The groundwater contains PAH (anthracene and naphthalene), VOCs (benzene, ethylbenzene, toluene, xylenes, and 1,2,4-trimethylbenzene), arsenic, and TPH (gas, diesel, and motor oil).

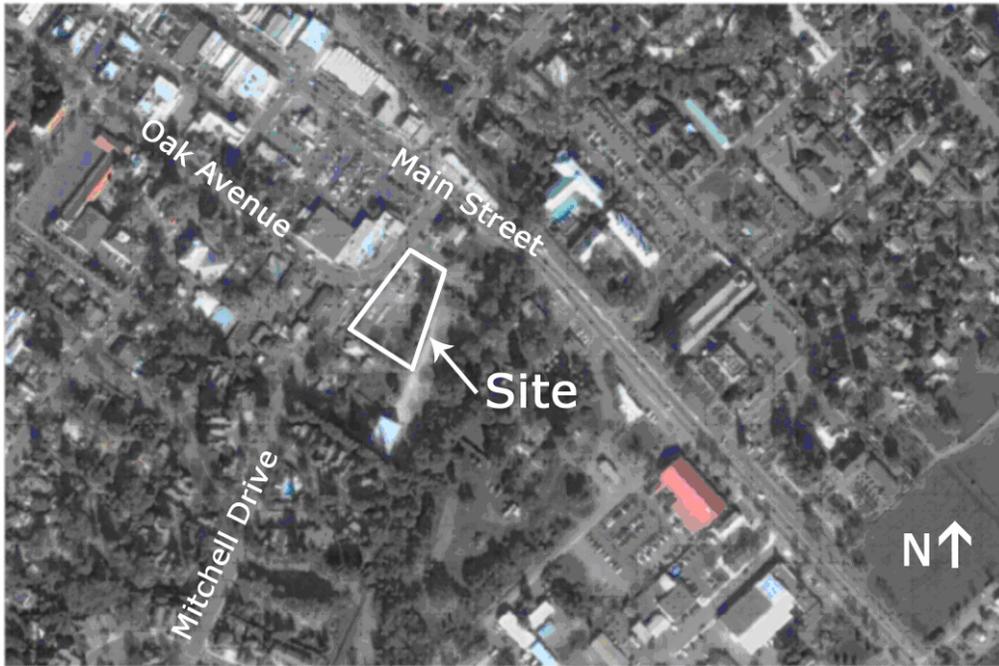
Area C: Shallow soil and groundwater (less than 5 feet below ground surface) in the vicinity of the common property line between the PG&E property and the neighboring Megley Partners' property.

- The soil contains PAH (benzo(a)pyrene equivalents), arsenic, lead, and TPH (gas, diesel, and motor oil).
- The groundwater contains arsenic and TPH (gas, diesel, and motor oil).

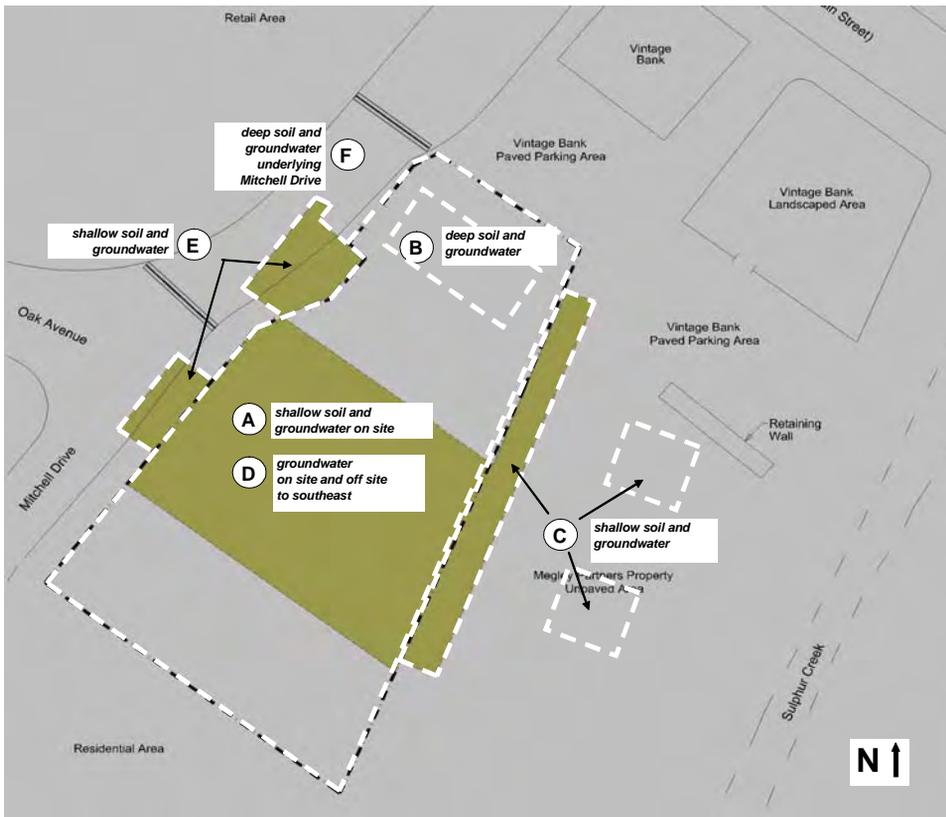
Area D: Groundwater in areas other than the area of the former gas holder.

- The groundwater contains arsenic and TPH (gas, diesel, and motor oil).

Area E: Shallow soil and groundwater (less than 9 feet below ground surface) beneath Mitchell Drive.



Site Location Map



Map with Cleanup Areas

- The soil contains PAH (naphthalene and benzo(a)pyrene equivalents), VOCs (benzene, ethylbenzene, and xylenes), and TPH (gas, diesel, and motor oil).
- The groundwater contains PAH (anthracene and naphthalene), VOCs (benzene, ethylbenzene, toluene, and xylenes), and TPH (gas, diesel, and motor oil).

Area F: Deep saturated soil and groundwater (9 to 30 feet below ground surface) beneath Mitchell Drive and portions of the Site in the area of the former oil tanks.

- The soil contains PAH (anthracene and naphthalene), VOCs (benzene, ethylbenzene, toluene, and xylenes), and TPH (gas and diesel).
- The groundwater contains PAH (anthracene and naphthalene), VOCs (benzene, ethylbenzene, toluene, xylenes, and 1,2,4-trimethylbenzene), and TPH (gas, diesel, and motor oil).

Dual-phase Extraction System Pilot Study

A series of short-term tests were conducted in 2005 to determine the effectiveness of various possible remedies for cleaning up MGP residues at the Site. As part of these tests, a pilot study to extract and treat soil-vapor and groundwater (dual-phase extraction system) was installed in November of 2005. This system operated until July of 2006, proving to be an effective method of remediating MGP residues with minimal disruption to neighboring businesses and residences.

DTSC Cleanup Goals

The following cleanup goals were developed for the Site based upon U.S. Environmental Protection Agency (EPA), Regional Water Quality Control Board, and DTSC guidance.

Tables with DTSC Cleanup Goals

Shallow Soil		
Contaminant	Highest Level Found on Site	DTSC Cleanup Goal
PAH – Benzo(a)pyrene Equivalents	1,415	0.92/0.40 ¹
PAH - Naphthalene	3,100	4.2
VOC - Benzene	1,100	0.38
VOC - Ethylbenzene	500	400
VOC - Xylenes	580	420
Arsenic	740	10
Lead	1,370	800
TPH – Gas	8,700	500
TPH – Diesel	47,000	500
TPH – Motor Oil	41,000	2,500

Deep Saturated Soil		
Contaminant	Highest Level Found on Site	DTSC Cleanup Goal
PAH - Anthracene	77	Soil will be considered cleaned up when groundwater cleanup goals are attained
PAH - Naphthalene	3,500	Soil will be considered cleaned up when groundwater cleanup goals are attained
VOC - Benzene	400	Soil will be considered cleaned up when groundwater cleanup goals are attained
VOC - Toluene	450	Soil will be considered cleaned up when groundwater cleanup goals are attained
VOC - Ethylbenzene	60	Soil will be considered cleaned up when groundwater cleanup goals are attained
VOC - Xylenes	360	Soil will be considered cleaned up when groundwater cleanup goals are attained
TPH – Gas	4,100	Soil will be considered cleaned up when groundwater cleanup goals are attained
TPH – Diesel	19,000	Soil will be considered cleaned up when groundwater cleanup goals are attained

Groundwater		
Contaminant	Highest Level Found on Site	DTSC Cleanup Goal
PAH - Anthracene	0.058	0.043
PAH - Naphthalene	18 ²	0.017
VOC - Benzene	21	0.001
VOC - Toluene	0.73	0.15
VOC - Ethylbenzene	1.4	0.3
VOC - Xylene	3.5 ²	1.75
VOC – 1,2,4-trimethylbenzene	0.54	0.33
Arsenic	0.16	0.01
TPH – Gas	36 ²	100
TPH – Diesel	340 ²	100
TPH – Motor Oil	88 ²	100

Note: All units are shown in parts per million (ppm).

¹ - PG&E property/offsite locations

² - Indicates presence of separate-phase oil

DTSC Cleanup Alternatives

The Draft RAP provides a comprehensive evaluation of alternatives for Areas A to F in accordance with DTSC requirements.

The soil cleanup alternatives include:

- No Action
- Land use covenants (i.e., deed restrictions) to prevent disturbance of site

soil and to restrict the Site to commercial uses

- Installation of an asphalt cap to limit exposure to contaminated soil
- Excavation of select highly-contaminated soil
- Excavation of all Site soil exceeding cleanup goals

The groundwater cleanup alternatives include:

- No Action
- Land use covenants (i.e., deed restrictions) to prevent extraction of Site groundwater and to restrict the Site to commercial uses
- Dual-phase extraction and treatment, in which contaminated water and vapor are pumped out of the ground, contaminants are removed and treated water and vapor are discharged to the sewer system and atmosphere, respectively
- Enhanced natural attenuation, where nutrients or other supplements are injected into the groundwater to facilitate biodegradation (i.e., microorganisms break down the organic contaminants to non-toxic substances).

DTSC Cleanup Recommendations

Based on the evaluation provided in the Draft RAP, the following remedial alternatives have been recommended for implementation at Areas A to F:

In Area A, DTSC recommends excavation of select highly-contaminated areas of soil which contains PAH, arsenic, lead, and TPH. Contaminants remaining in soil will be contained under an asphalt cap, and a land use covenant will be recorded to restrict the Site to commercial uses. The land use covenant will include provisions to ensure that future occupants and/or workers are aware of the contamination and use appropriate handling procedures if soil at the Site is ever disturbed. The arsenic and TPH in shallow groundwater will be cleaned up by reducing contaminant sources in soil, treating water removed during excavation, and minimizing future infiltration of water by constructing an asphalt cap.

In Area B, DTSC recommends dual-phase

extraction and treatment of PAH, VOCs, TPH, and arsenic in groundwater. This process is also recommended for removing the more mobile (soluble) contaminants, PAH, VOCs, and TPH to cleanup levels in the deep saturated soil. Less mobile contaminants will remain in place. An asphalt cap will be constructed, and a land use covenant will be recorded to restrict the Site to commercial uses. Once the dual-phase extraction system completes operation, nutrients or other supplements will be added to the groundwater to facilitate accelerated biodegradation of residual contaminants.

In Area C, DTSC recommends excavation of all soil containing PAH, arsenic, lead, and TPH above cleanup goals. Shallow groundwater will be cleaned up by eliminating the arsenic and TPH sources in the soil and treating water removed during excavation.

In Area D, DTSC recommends enhanced natural attenuation of TPH in groundwater. This means nutrients or other supplements will be added to the groundwater to facilitate accelerated biodegradation of TPH. Arsenic in groundwater will be cleaned up by removing sources in overlying soil (see Areas A, C, and E).

In Area E, DTSC recommends excavation of areas of select highly-contaminated soil containing PAH, VOCs, and TPH. Contaminants remaining in soil will be contained under Mitchell Drive. A land use covenant will be recorded to ensure that future workers are aware of the contamination and use appropriate handling procedures if soil is ever disturbed. Shallow groundwater containing PAH, VOCs, and TPH will be cleaned up by reducing contaminant sources in soil, treating water removed during excavation, and preventing future infiltration to the groundwater by maintaining the asphalt surface of Mitchell Drive.

In Area F, DTSC recommends dual-phase extraction and treatment of groundwater containing PAH, VOCs, and TPH. The less soluble contaminants of PAH, VOCs, and TPH will remain in the soil contained under the asphalt of Mitchell Drive. A land use covenant will be recorded to ensure that future workers are

aware of the contamination and will use appropriate handling procedures if the soil is ever disturbed. Once the dual-phase extraction system completes operation, nutrients or other supplements will be added to the groundwater to facilitate biodegradation of residual contaminants.

California Environmental Quality Act

In compliance with the California Environmental Quality Act (CEQA), DTSC has prepared an Initial Study to evaluate potential impacts of the proposed project on the environment. The findings of the Initial Study indicate that the project would not have a significant effect on public health or the environment. Therefore, DTSC has prepared a proposed Negative Declaration for the St. Helena Former MGP site cleanup. Both the Initial Study and proposed Negative Declaration are also available for review and comment during the public comment period.

Information Repositories

The PG&E St. Helena Former MGP site Draft RAP, CEQA Initial Study and proposed Negative Declaration, and supporting documentation can be reviewed at the following locations:

St. Helena Public Library - Reference Desk
1492 Library Lane
St. Helena, CA
(707) 963-5244

Hours: Monday and Wednesday
12:00 p.m. to 9:00 p.m.
Tuesday, Thursday and Friday
10:00 a.m. to 6:00 p.m.
Saturday 10:00 a.m. to 4:00 p.m.
Sunday 1:00 p.m. to 5:00 p.m.

DTSC File Room
700 Heinz Avenue
Berkeley, CA
(510) 540-3800

Please call for an appointment.
Hours: Monday through Friday
8:00 a.m. to 5:00 p.m.

DTSC Contact Information

Please contact the following DTSC individuals if you have any questions regarding the PG&E St. Helena Former MGP site.

For questions regarding the Draft RAP or related documents, please contact:

Eileen Belding
DTSC Project Manager
E-mail: Ebelding@dtsc.ca.gov
(510) 540-3844

For questions regarding the public participation process or the public meeting, please contact:

Nancy Cook
DTSC Public Participation Specialist
E-mail: Ncook@dtsc.ca.gov
(510) 540-3923

For media questions, please contact:

Angela Blanchette
DTSC Public Information Officer
E-mail: Ablanche@dtsc.ca.gov
(510) 540-3732

Anuncio

Si prefiere hablar con alguien en español acerca de ésta información, favor de llamar a Jacinto Soto, Departamento de Control de Substancias Tóxicas. El número de teléfono es (510) 540-3842.

Notice to Hearing Impaired Individuals

TDD users can obtain information about the site by using the California State Relay Service at (888) 877-5378. Please ask to speak with Nancy Cook, DTSC Public Participation Specialist, at (510) 540-3923.