



EPA

MODESTO SUPERFUND SITE

U.S. ENVIRONMENTAL PROTECTION AGENCY • REGION 9 • SAN FRANCISCO, CA • FEBRUARY 2000

EPA Announces Start of Construction for Cleanup of Groundwater Contamination

Summary

In February 2000, construction is scheduled to begin at the Modesto Groundwater Contamination Superfund Site in central Modesto. Construction will mark the initiation of EPA's soil and groundwater cleanup at the site. Cleanup is necessary to prevent the contaminant perchloroethylene from spreading and, in a worst case scenario, impacting water supply wells. At this time it is uncertain how many years it will take to clean up the soil and groundwater, but EPA intends to continue its efforts into the foreseeable future.

As part of the construction, equipment will be installed to remove the chemical perchloroethylene from soil and groundwater. The perchloroethylene is believed to have come from past spills at a local dry cleaning establishment and the municipal sewer. Treated groundwater will be discharged to the City of Modesto sewer system under the strict conditions of a permit issued by the City. Contaminants removed from soil and groundwater will be shipped offsite to a facility permitted and designed to handle the waste material.

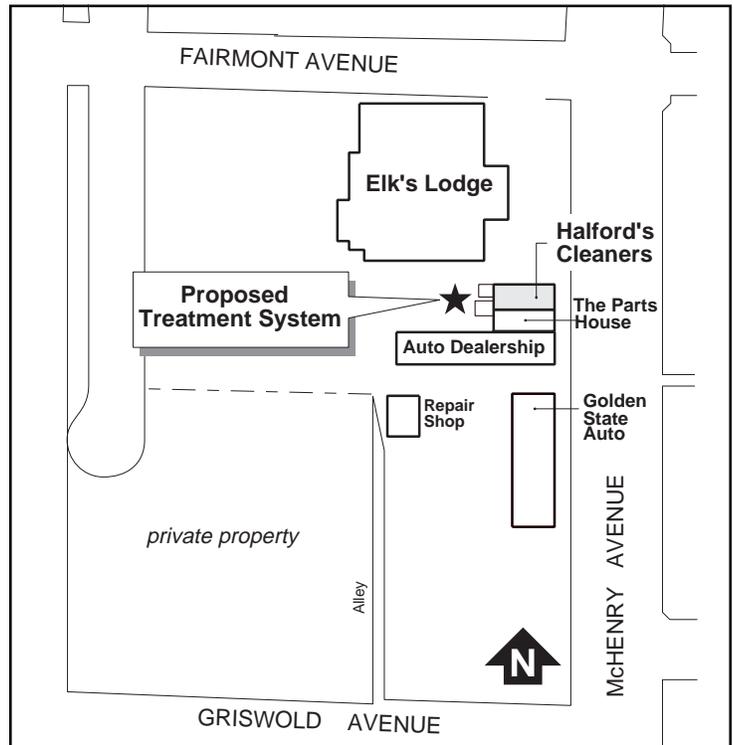


Figure 1. Location of Proposed Treatment System

What to Expect During Construction

The duration of construction will be approximately four to six weeks. Most of the operations should not impact local residential areas. Construction activity for the most part will be limited to private property located in an area directly to the southeast of the intersection of Fairmont Avenue and McHenry Avenue, in the vicinity of Halford's Cleaners. This will be light construction activity, consisting of:

limited earth moving; the pouring of concrete; the positioning of mostly prefabricated one-story structures; trenching and the installation of piping to and from the prefabricated structures. Here are some of the things you may see as the construction work continues:

• Equipment and Gear

The types of construction vehicles and equipment which will be seen may include: backhoes (for trenching); bulldozers (for earth

moving); dump trucks (for transporting backfill materials to the site and/or removing excess soil); concrete mixers; water storage tanks; pickup trucks; treatment equipment (which will be housed in trailers); and an office trailer. In addition, stored materials such as lengths of pipe and piles of dirt will be present at the construction site. Construction vehicles may be parked overnight at the site or on adjacent private property (for which permission has been obtained from the property owners).

Activity at the Site

Current (February - April 2000)

Pouring of concrete pads; installation of pre-packaged treatment systems for soil and groundwater cleanup; installation of piping to connect groundwater and soil vapor wells to the treatment systems; installation of connection to the municipal sewer system; start-up and testing of treatment systems.

Prior to February 2000

Environmental measurements taken and data collected; extent of soil and groundwater contamination defined; interim cleanup plan selected; cleanup system designed; groundwater and soil vapor wells installed.

Planned (after April 2000)

Continued operation of treatment systems; continued collection of data to determine the extent of reduction of contaminants in soil and groundwater; selection of a final cleanup plan.

• Traffic

We expect that as many as ten vehicles per day will be coming to the construction site, but that there will be only a few occasions during which heavy vehicles (dump trucks, for example) will be traveling to and from the site.

• Safety

Standard construction safety procedures will be used. These include signs which identify this area as a Superfund construction project. The signs will include telephone numbers which the public can call should any questions arise. A health and safety plan has been developed for the site for the purpose of protecting workers and minimizing impacts to the local community. Site security will also include standard construction procedures such as locking equipment storage boxes at the end of each day and informing the police and/or fire department if security problems arise.

• Hours of Construction Activity

Working will be conducted between 7:00 a.m. and 5:00 p.m., Monday through Friday, unless residents agree to other times. Work on Saturdays, if approved, would be limited to completing activities already started. New activities will not be started during the weekends. No construction activities will be allowed on Sundays.

• Dust Control

During construction, dust and air pollution will be minimized by wetting down bare soils, requiring the use of properly operating combustion emission control devices on construction vehicles and equipment, and encouraging shut-down of motorized equipment not actually in use. Refuse (garbage) burning will not be permitted on the construction site.

• Noise

Construction operations will be conducted to cause the least annoyance to the general public, residents and businesses in the vicinity of the work, in compliance with applicable local ordinances. Compressors used for construction will be equipped with silencers on intake lines. Gasoline or oil-operated equipment will be equipped with silencers or mufflers on intake and exhaust lines. Process equipment for the

constructed groundwater and soil treatment systems will be housed in steel container boxes. The containers will be sound insulated to reduce process equipment noise. The exterior noise level within 15 feet of the containers will be below 50 decibels.

Specifics About the Construction

1. Groundwater Treatment System

The groundwater treatment system has been designed to remove the contaminant perchloroethylene. Contaminated groundwater will be pumped from the surrounding area through a well. In the treatment system, the water will flow through a two-step process:

The first step consists of an air-stripping vessel. In the air-stripping vessel, the water disperses as a thin film over specially designed "packing material". Air is forced through the water, transferring the perchloroethylene from the water into the air. The air then flows through an "air phase" vessel containing activated carbon, which traps the perchloroethylene and allows the cleaned air to return to the atmosphere. The activated carbon in the vessel is periodically removed, trucked offsite to an approved disposal facility, and replaced with new carbon. In most cases this first treatment step is projected to remove close to one hundred percent of the perchloroethylene from the water.

In the second step, the water flows through a "liquid phase" vessel containing activated carbon, which traps any remaining perchloroethylene. The activated carbon in the vessel is periodically removed, trucked offsite to an approved disposal facility, and replaced with new carbon. As the water emerges from the second phase of the treatment system it is expected not to contain perchloroethylene at levels detectable by advanced laboratory analysis. The treated water will then enter the City of Modesto sewer system.

2. Soil Treatment System

The soil treatment system has been designed to remove the contaminant perchloroethylene from the surrounding area. The soil itself will not be excavated. Perchloroethylene will be extracted from the soil through "vapor extraction wells".

These wells are specially designed so that when a vacuum is applied at the well, air will flow through the soil. In this way the perchloroethylene is transferred from the soil into the air moving through the well. This air then flows through an "air phase" vessel

containing activated carbon, which traps the perchloroethylene and allows the cleaned air to return to the atmosphere. The activated carbon in the vessel is periodically removed, trucked offsite to an approved disposal facility, and replaced with new carbon.

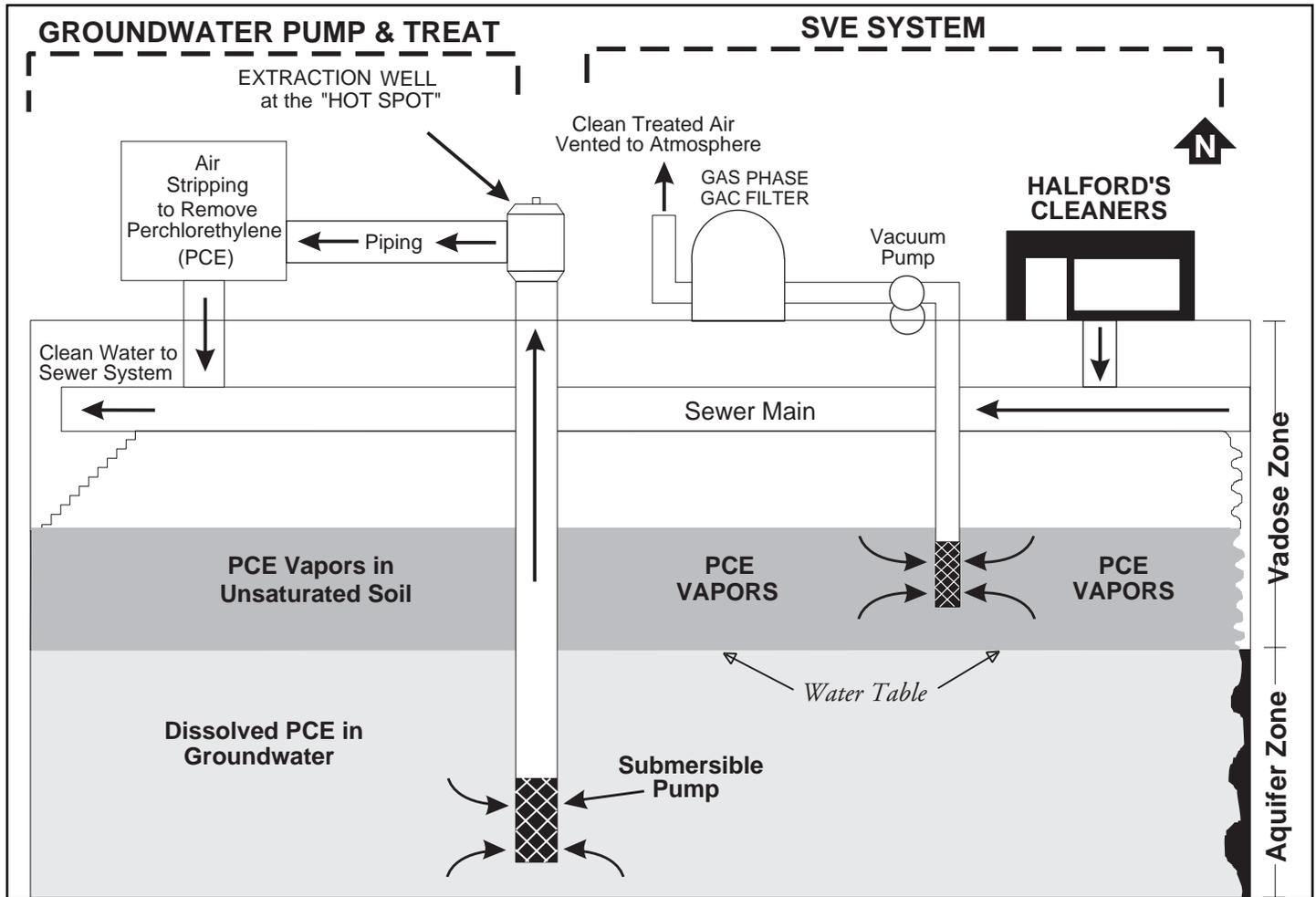


Figure 2. Groundwater and Soil Vapor Extraction (SVE) Systems

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EPA MAILING LIST FOR THE MODESTO SUPERFUND SITE

We need your help to update our mailing list for the Modesto Superfund Site. Please mark the box and complete the coupon below and return to:

Vicky M. Semones
75 Hawthorne St., (SFD-3)
San Francisco, CA 94105.

Or you may call toll free at 1-800-231-3075. Thank you.

- If you would like to be ADDED to our list
- If you have CHANGED your address
- If you would like to be DELETED from our list

If you're on our list and have NO changes, you DON'T have to reply - but you may want to pass this along to someone else who might want to be on our list. Thank you.

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Contacts For The Community

You may call the U.S. EPA TOLL FREE. You may also contact U.S. EPA specialists DIRECT.

Call Vicky Semones

Community Involvement Coordinator at
1-800-231-3075
with any questions about this fact sheet.
[semones.vicky@epa.gov.]

Call Dave Seter

Remedial Project Manager at
415-744-2400
with any questions about site activities.
[seter.david@epa.gov]

(Si necesita esta información en español, por favor llame al 1-800-231-3075.)

Written information about the site is available at:

Stanislaus County Free Library

1500 "I" Street
Modesto, CA 95354
(209) 558-7814



You may access certain EPA documents electronically on the Internet:



EPA Website: <http://www.epa.gov>
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