

Cleanup at Clark's Lane/Gilmore Avenue Ground Water Contamination Site in Winona

Geographic/Winona County/g-85-02/December 2002

Remediation

This Minnesota Pollution Control Agency (MPCA) fact sheet describes the plan to address risks posed by soil contamination at the Winona Ground Water Contamination (Clark's Lane/Gilmore Avenue) site in Winona County, Minnesota. This fact sheet summarizes the history of the problem, results of soil investigations and response actions, and details of the cleanup action. The MPCA continues to address the ground water contamination problem associated with this site; however, this fact sheet deals specifically with the soil contamination problem. A solvent-type chemical used in the dry cleaning process, commonly referred to as perchloroethylene (PCE), is the principal contaminant that necessitates soil and ground water cleanup activities.

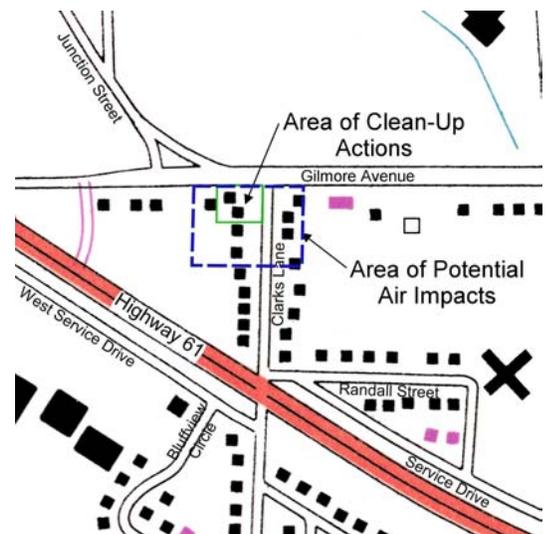
The ground water problem extends over an area of several city blocks. A remediation system continues to operate in order to address the ground water problem. During the forthcoming soil cleanup, an MPCA contractor will install deep temporary monitoring wells to evaluate the potential for deeper ground water contamination.

SITE LOCATION

For the purpose of this fact sheet, the "site" includes the source property, presently known as Leaf's Cleaners and Launderers at 1405 Gilmore Avenue, and two properties adjacent to Leaf's: 605 Clarks Lane and 1429 Gilmore Avenue (See Figure A).

The site consists of contaminated soil and a large groundwater plume containing dissolved PCE. The Leaf property consists of two buildings: a main building used for the dry cleaning business plus storage, and an unattached two-stall garage. The

property was once used as an auto service station.



(Figure A, Soil Remediation/Ground Water Contamination Site)

The Leaf property is bordered on the north by Gilmore Avenue, on the east by Clarks Lane, on the south by a garage and a single-family residence, and on the west by a motel. Past waste management practices at the site resulted in the release of PCE into the soil and ground water. Although the actual site consists of several square blocks due to the off-site migration of contaminated ground water, the current remedial action is addressing contaminated soils located on Leaf's property and adjacent property to the south.

HISTORY OF THE PROBLEM – A SUMMARY

In July of 1989, the MPCA discovered a release of PCE, which is a chemical commonly used in dry cleaning processes.

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Approximately 25 area residences with impacted private drinking water wells were connected to City water as of November 1990, and the majority of the residents were awarded State compensation for water service replacement and for permanent sealing of their wells. In November 1990, Leaf's Services, Inc., under State order, was asked to respond to the contamination, and their response included the cleanup of two identified release areas. These two areas included an indoor drain and an outdoor "pit" that were both used for disposal of dry cleaning wastes.

Subsequently, and beginning in 1991, the MPCA retained consultants and other support remediation services to investigate the extent and magnitude of the contaminant plume and to evaluate and design a ground water remediation system. MPCA contractors completed the installation of a groundwater remediation system in 1992, and conducted a soil gas survey of the site in 1998. From the soil gas survey, it was concluded that a significant mass of contaminated soil remains underneath and within 25 feet of Leaf's building. Soil vapor concentrations of PCE and trichloroethylene (TCE, a typical breakdown product of PCE), were observed at significant levels. The survey report also recommended that additional soil sampling be completed in order to better define the source zone of contamination.

In 1999 the MPCA retained Terracon, Inc., a MPCA multi-site consultant/contractor with hydrogeologic and engineering expertise, to complete the groundwater contamination and source zone characterizations.

Additional soil, ground water, and indoor air samples were collected in and around the source property. PCE and other chlorinated solvents were detected in shallow soils (3 to 15 feet deep), with the majority of contamination occurring just above the water table at a depth of 8 feet. Indoor air at the three properties closest to Leaf's was monitored for chlorinated solvents and petroleum contaminants. To control chemical vapors that were detected in the nearest residence, the MPCA placed air purifiers in the home.

The MPCA and Terracon completed a Feasibility Study in 2000. The study provided potential demolition and excavation options at Leaf's and the residential property at 605 Clark's Lane.

The Minnesota Department of Health (MDH) staff has been engaged in the review of reports by Terracon, and has also provided technical review and comments for the MPCA and Terracon project team. MDH staff also

completed a 'Health Consultation', dated September 28, 2000 for this site. The MDH 'Health Consultation' fact sheet dated November 2000 summarizes the report and is available for general distribution and review.

MOVING AHEAD – EXCAVATING THE SOIL & REMEDIATING THE SITE

In order to remove impacted soil at the site, the Leaf's building and the private residence (605 Clarks Lane) will be demolished and the rubble will be hauled to a permitted landfill for proper disposal. The soil under the buildings will be removed and replaced with clean soil. Due to past and anticipated future costs of air quality monitoring in the home, the MPCA found that it was more cost-effective to purchase the property and demolish the house, and pay for the property owners' moving expenses. As part of the cleanup, the MPCA contractors will also install an exterior wall barrier and a soil vapor collection system at the El Rancho Motel (1429 Gilmore Avenue). Immediate funding for the cleanup actions is derived from the MPCA Superfund. This fund will be reimbursed with dollars from the Dry Cleaner Fund.

The MPCA contractors will work with the City of Winona and Winona County to deal with road closures and traffic issues during the various phases of this project. The daily schedule of cleanup work will follow typical/normal construction hours (7:00am to 5:00pm).

During the soil remediation process, the MPCA and its contractors will monitor the site's air, ground water, and soil with the assistance of an on-site mobile laboratory. The monitoring plan will require both continuous and periodic sampling of air quality during soil excavation activities. The soil and ground water in the excavation will be monitored periodically. Although PCE air concentrations down gradient from the site are expected to be well below MDH's health based criterion, a notification system to contact residents and other individuals in the area surrounding the site is part of the monitoring plan.

Project activities will not be significantly affected by cold weather. The cold weather, in fact, provides a better time of year for such remedial actions. Closing windows of buildings surrounding the area serves to decrease or eliminate any exposure that might arise as vapors escape during the site's excavation and remediation work.



As soil excavation proceeds, MPCA and Terracon staff will utilize various sampling techniques to identify the horizontal extent of PCE-contaminated soil. Additional temporary ground water monitoring wells (extending to a maximum depth of approximately 120 feet deep) will help to identify the vertical extent of PCE contamination. The additional step of collecting ground water samples at this depth will more fully assess the depth of the ground water contamination.

The MDH will provide technical guidance involving the air monitoring plan coordination efforts during the soil excavation.

Building demolition and soil excavation are anticipated to take only a few days; however, additional site activities such as disconnecting utilities and restoring the site could take two to three weeks. The extent of contamination, weather conditions and other factors will influence the amount of time required for cleanup.

Individuals with site excavation concerns may contact MPCA project leader, Dave Douglas.

RECOMMENDATIONS FOR CITIZENS NEAR SITE

Please keep all windows closed while site remediation occurs. Residents near the site (See Figure A, page 1) are encouraged to avoid outdoor activities during soil excavation. The air-monitoring plan provides for the use of color-coded signs to notify nearby residents about air quality in the vicinity of the excavation. Specifically, a blue sign indicates that no special alert is necessary. An orange sign indicates that residents are advised to stay indoors. A red sign indicates that residents are not to engage in any outdoor activities.

HOW DO I GET MORE INFORMATION?

The community is encouraged to call or e-mail the MPCA for additional information.

- Melanie Miland, MPCA Rochester Information Officer, (507) 285-7151 or toll-free at 1-800-657-3864; e-mail at melanie.miland@pca.state.mn.us

For site excavation concerns, contact:

- Dave Douglas, MPCA Majors and Remediation Program, (651) 296-7818 or toll-free at 1-800-657-3864; e-mail at david.douglas@pca.state.mn.us

Concerns regarding health issues or interest in obtaining the MDH 'Health Consultation' summary can be obtained by contacting Tannie Eshenaur, MDH at (651) 215-0916.

Visit the MPCA Web at <http://www.pca.state.mn.us> for additional information on remediation and site cleanup.