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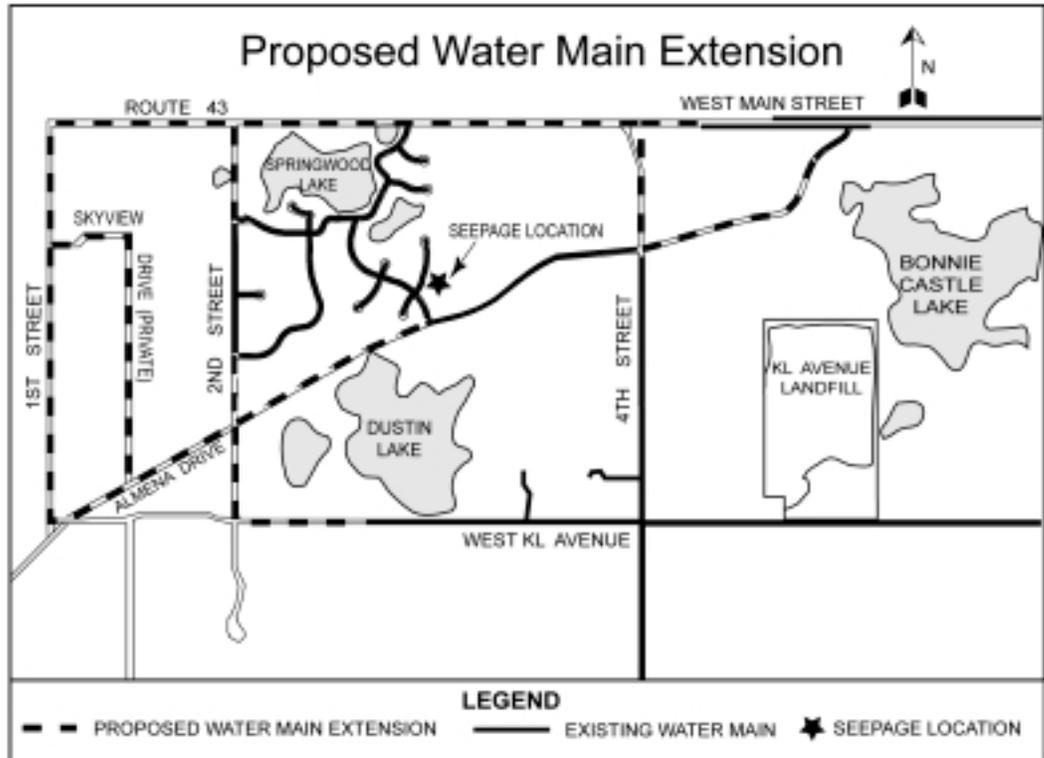
Update Fact Sheet

West KL Avenue Landfill Superfund Site

Oshtemo Township, Michigan

November 2001

The U.S. Environmental Protection Agency, Michigan Department of Environmental Quality, Kalamazoo County, Oshtemo Township and the KL Avenue Group continue to work closely together to install water mains to areas affected by ground-water contamination, investigate the potential source(s) and clean up the contamination. This fact sheet describes the water main extension project, a pilot study to help clean up the ground water, MDEQ's activities, the ongoing residential sampling program, and the results of the most recent monitoring well sampling.



Oshtemo Township Water Main Extension

Oshtemo Township is developing a plan to supply city water to the area of the township affected by ground-water contamination. This area is bounded by Fourth Street to the east, KL Avenue to the south, First Street to the west, and West Main Street to the north (see "Proposed Water Main Extension" map for the specific locations of the proposed new water mains). Most of the ground water is considered safe. However, Kalamazoo County has been denying permits for new wells in this area because it is close to wells contaminated at levels above the drinking water standards. Oshtemo Township expects the project to begin in spring 2002 with all of the mains to be laid by the end of the 2002 construction season. This project does not include hooking up the homes to the water mains.

Availability Session

EPA will hold an availability session in November to explain the ongoing water main installation as well as the investigation and cleanup of the landfill and ground water. Availability sessions are informal, open-house style meetings during which members of the community can meet one-on-one with EPA representatives.

Date: Wednesday, November 28, 2001

Location: Oshtemo Township Building
7275 W. Main St.
Kalamazoo, MI

Time: 6:00 p.m. - 8:00 p.m.

Ground-Water Pilot Study

EPA is reviewing a work plan prepared by the KL Avenue Group that studies the proposed cleanup method for the ground water. Past studies at the site show that bacteria are breaking down most of the contaminants in the ground water. The study will determine if adding sulfate will help the bacteria break down the contamination faster than without adding it.

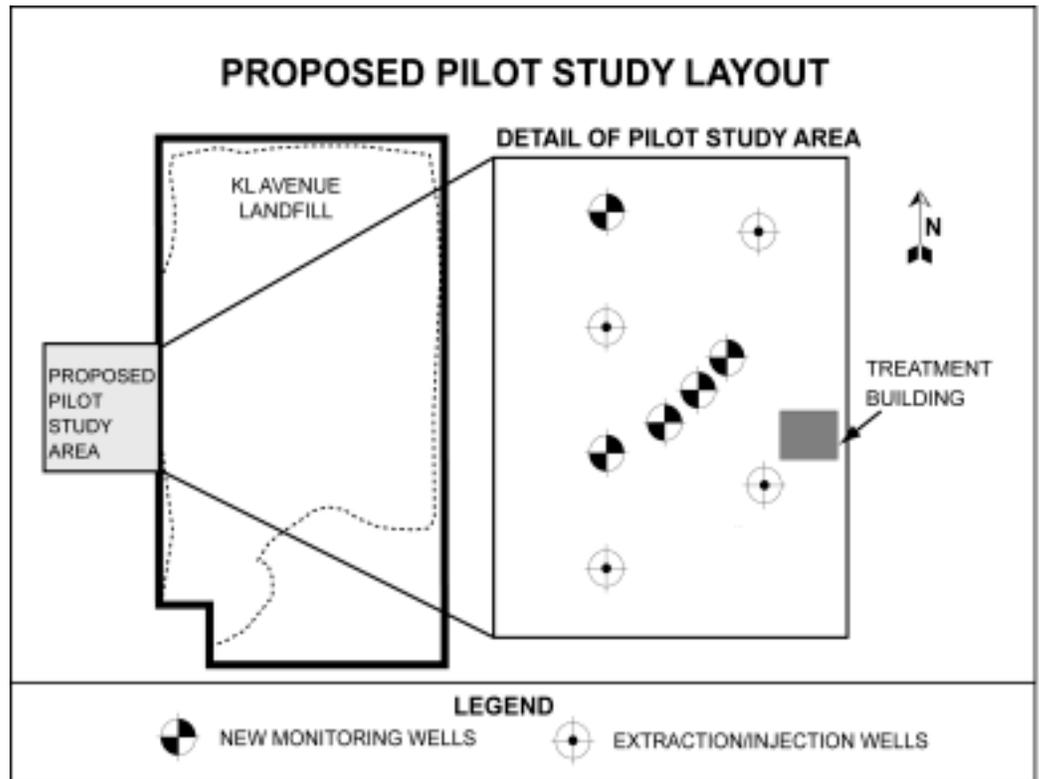
The Pilot Study will involve:

- Installing ground-water extraction and injection wells
- Installing a building to hold tanks, pumps and the sulfate system
- Conducting a ground-water monitoring program

Extraction wells will take water out of the ground. The water will then be mixed with sulfate in the treatment building and put back into the ground through the injection wells. Also, for a short time, bromide will be injected into the ground water to show us if the wells are in the right places.

The equipment will be located in the treatment building (a temporary building located in the pilot study area). A gravel road and parking area will be constructed to provide access to the building.

As part of the pilot study, EPA will also develop a ground-water monitoring program to see how much contamination is breaking down and at what rate. The monitoring program will remain flexible and may need to be modified as the pilot study progresses.



MDEQ Update

MDEQ is working to identify other sources of contamination surrounding the KL Landfill plume, plan the cleanup of other sources of contamination, and assist residents with alternate water supplies. This work includes:

- Investigating a contaminated seep found on a property in the Laguna Drive area of Springwood Hills, and attempting to track contamination back to its source (see the map on the front page)
- Securing access to properties northwest of the landfill for upcoming soil and ground-water tests
- Obtaining state financing of municipal water extension to residents on 4th Street between Almena Drive and West M-43
- Performing additional ground-water/surface water tests at Bonnie Castle Lake and Dustin Lake to see what impact, if any, the ground-water contamination is having on the lakes' water quality
- Doing soil gas surveys near the landfill to show that potential movement of methane poses no threat to the public
- Continuing financial support for sampling of residential wells near known ground-water contamination.

Residential Well Monitoring Plan Update

Since March 2000, the KL Avenue Group has been implementing the “Residential Well Monitoring Plan,” which was discussed in the April 2000 fact sheet.

The purpose of the monitoring program is to make sure drinking water remains safe to use and to decide what action is necessary if contamination is found.

When the work began, 85 residential wells were in the monitoring program. Three of those wells were sampled every three months, 19 of the wells were sampled every six months, and 63 of the wells were sampled once a year. The frequency of sampling is based on several factors including whether contaminants have been detected in the well and how close the well is to contaminated wells.

When this monitoring program began, it was recognized that the frequency of sampling and number of wells being sampled might change based on the results received. This has been the case. Based on the sampling results, eight wells have been switched to being sampled every three months, nine wells have switched to being sampled every six months, and three additional homes have been hooked up to city water. At this point, the sampling frequency has not decreased for any well.

To see a summary of the sample results, go to www.kalcounty.com and click on Department Services, Human Services Department, and then What’s New to reach information listed under Springwood Lake.

Ground-Water Monitoring Update

In addition to residential well sampling, the KL Avenue Group continues to sample the ground-water monitoring wells every six months. These wells were installed by EPA and KL Avenue Group throughout the area to track the contaminant plume. The most recent round of sampling took place in May 2001. Twenty-seven wells were sampled.

The results show some contaminants continue to be released into the ground water from the landfill and are found in wells in the path of the flow of the ground water. Some contaminants, however, are no longer being released from the landfill but are still found in these wells. Finally, other contaminants have not been found in any of the monitoring wells.

These results indicate that, to a great degree, natural processes are working to decrease the amount of contamination. The specific results for the main contaminants are listed below:

Benzene and tetrahydrofuran

The sample results near the landfill continue to show that benzene and tetrahydrofuran are being released from the landfill. The plumes of these two contaminants appear to remain relatively stable.

1,2-dichloroethane and methyl isobutyl ketone

Contaminants such as 1,2-dichloroethane and methyl isobutyl ketone are no longer being found in wells near the landfill, but continue to be found in wells further away. This indicates that the landfill may no longer be a source of these contaminants.

Acetone and isopropanol

For the first time since ground-water monitoring has been done at this site, acetone and isopropanol were not detected in any of the monitoring wells in the path of the flow of the ground water. This may mean that the landfill is no longer a significant source of acetone or isopropanol, and that through natural processes, these two contaminants may have been cleaned up.

Tert-butanol

Tert-butanol continues to be found in both the wells near the landfill and in wells further away, indicating that the landfill continues to be a source of that contamination. However, tert-butanol has not been found in any of the monitoring wells at levels above the state drinking water standards. It has not been detected in any wells (residential or monitoring) above state standards since 1997.

More sampling and long-term monitoring is necessary to confirm these conclusions. The sampling results will determine how much natural processes should be relied upon to clean up the ground-water contamination. EPA and MDEQ continue to evaluate all of the results along with the adequacy of the monitoring program. Hopefully, EPA will have a proposal out to the public within the year to address all of the remaining contamination and ensure that everyone’s drinking water remains safe to use. The results of the sampling are summarized in the “Data Summary Report - May 2001 Ground-Water Sampling Results.” A copy of that report can be found at the Oshtemo Township Library.

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Information Repository

EPA has established a file called an information repository for the West KL Avenue Landfill Superfund Site. The information repository contains documents related to the project and the Superfund Program. The repository is located at:

Oshtemo Branch
Kalamazoo Public Library
7265 W. Main St.
Kalamazoo, MI

Web Sites

This and additional updates can also be found on the following Web sites:

www.kalcounty.com

Click on Department Services, Human Services Department, and then What's New to reach information listed under Springwood Lake.

www.epa.gov/region5/sites/

Scroll through the list to find West KL Avenue Landfill Superfund Site.

Monitoring Well Results

The KL Avenue Group continues to do sampling of area residential and monitoring wells.

For information on the results of this sampling, please refer to the Kalamazoo County Web site at the address listed here.

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