

NATURAL RESOURCES COMMISSION



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March 22, 1983

TO: Jim Truchan, Environmental Enforcement Division

FROM: Kathy Sibb, Remedial Design Unit, Groundwater Quality Div. *K.H.S.*

SUBJECT: General Motor's Linden Road Landfill, Flint Township

I have reviewed the data for the Linden Road site and have the following comments and recommendations:

In the 1982 samples, all or most of the test wells exceed the limits for sulfide, phenol, and pH. They are at the maximum limit for cadmium and total chrome.

The groundwater appears to be flowing northeast (the direction may be east or east-northeast in the three shallow test wells). If the condominiums are to be built west of the landfill site, then water from the landfill should not be flowing toward them.

Both the chemical data and the groundwater flow indicate the possibility that contamination has been flowing onto the landfill site from the west and south. Installation of a well southwest of test well 8D and a well southwest of test wells 1D or 2D on the lots adjacent to the landfill site could confirm this. Since the new condominiums are to be built on the lot west of the landfill, it's important to determine whether or not that property is also contaminated.

It is uncertain how much of the contaminants in the samples were particulates rather than dissolved ions, and whether or not the decrease in contaminants in the 1982 samples is due to less sediment in the sample water. Resampling for dissolved metals and ions as well as for total metals and ions would clarify how much dissolved contaminants are moving through the site.



It is recommended that the new condominium wells be double-cased down to the bedrock as a precaution against contamination.

Stiff diagrams indicate that plumes of contaminants may have been moving across the landfill site and off of it towards the northeast. One or more wells northeast or east of the landfill could be used to detect contamination that has moved off the site. The Villa Linde Condominiums are located northeast of the landfill. If they have wells, water quality might be effected by contaminants moving out of the landfill.

According to the test well logs, approximately the first 1-9 feet are heavily contaminated with fly ash and oil at several locations around the perimeter of the site. Assuming this indicates that the rest of the site is the same or worse, the landfill site should probably be capped.

If you have any questions or would like to discuss this further, please call me.

KS:ma