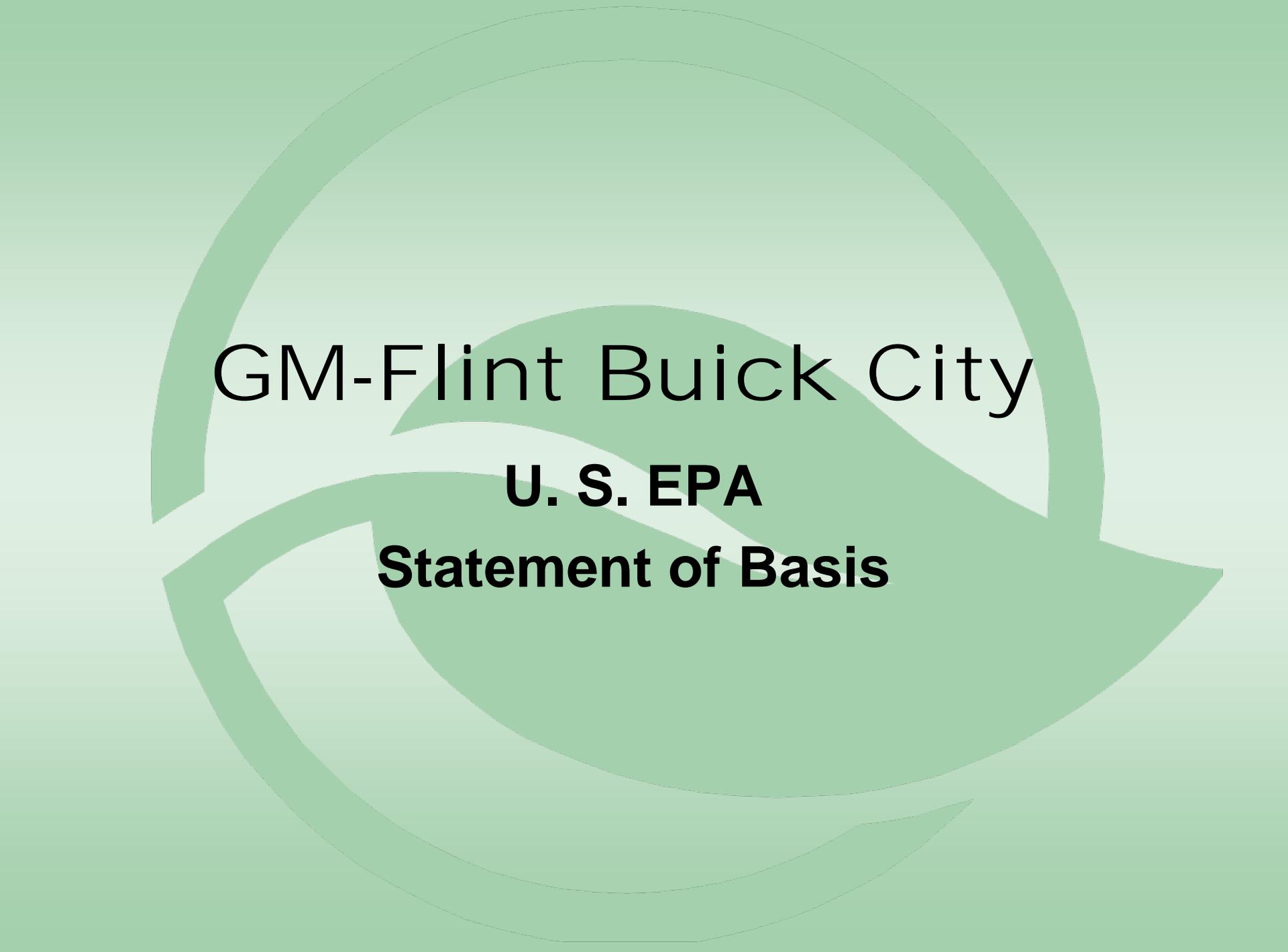


US EPA ARCHIVE DOCUMENT



GM-Flint Buick City

U. S. EPA

Statement of Basis

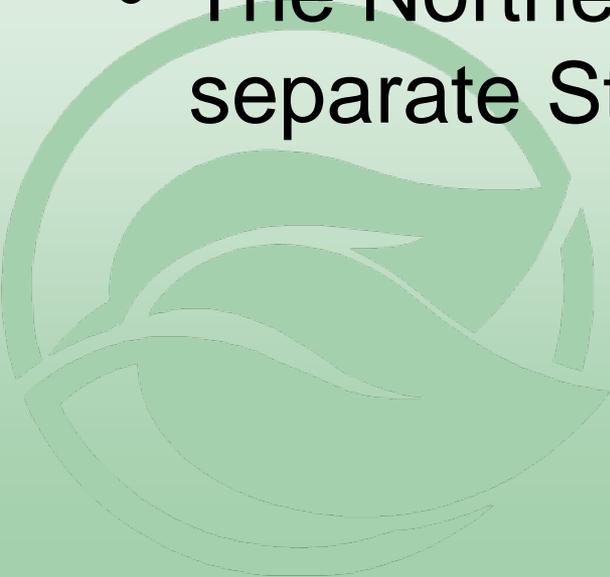
What is a Statement of Basis?

- A document in which EPA proposes a remedy (or set of remedies) to address contamination at a particular site.



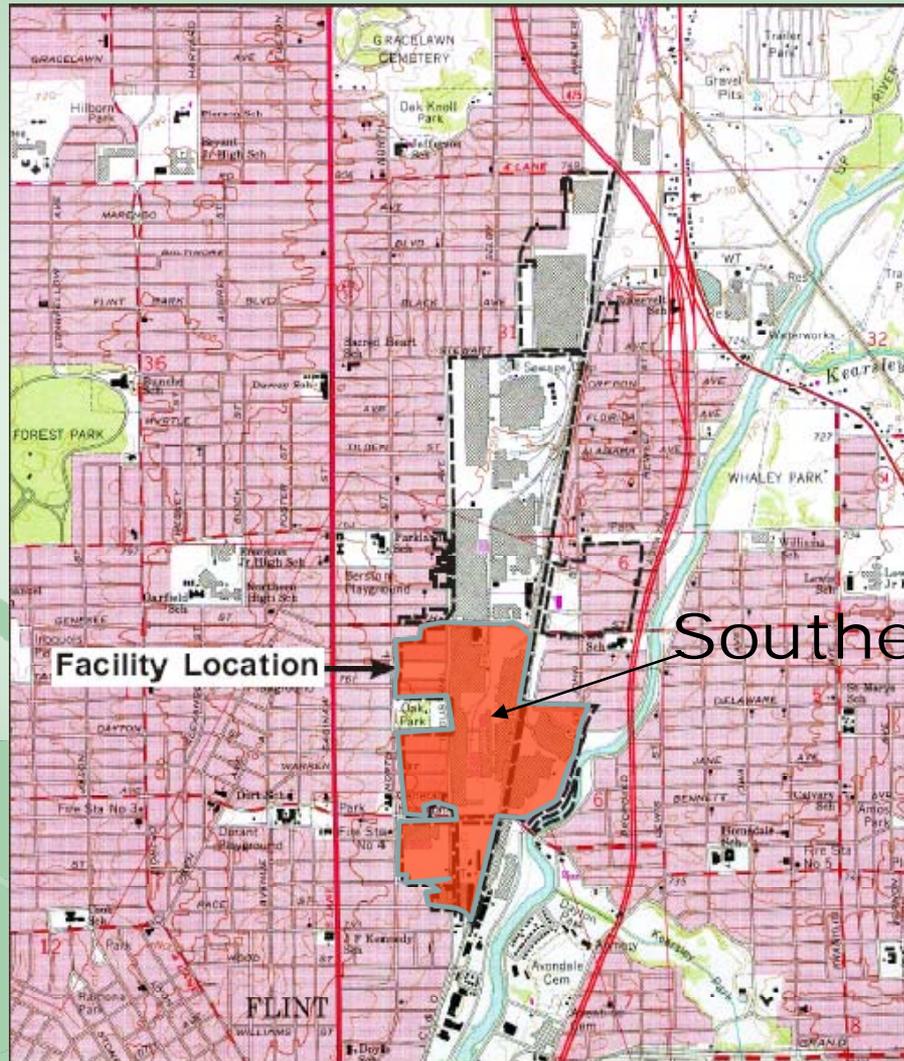
Introduction

- This Statement of Basis only covers the Southend of the GM-North American Operations Facility (Buick City)
- The Northend will be addressed in a separate Statement of Basis.



Site Location

North
↑

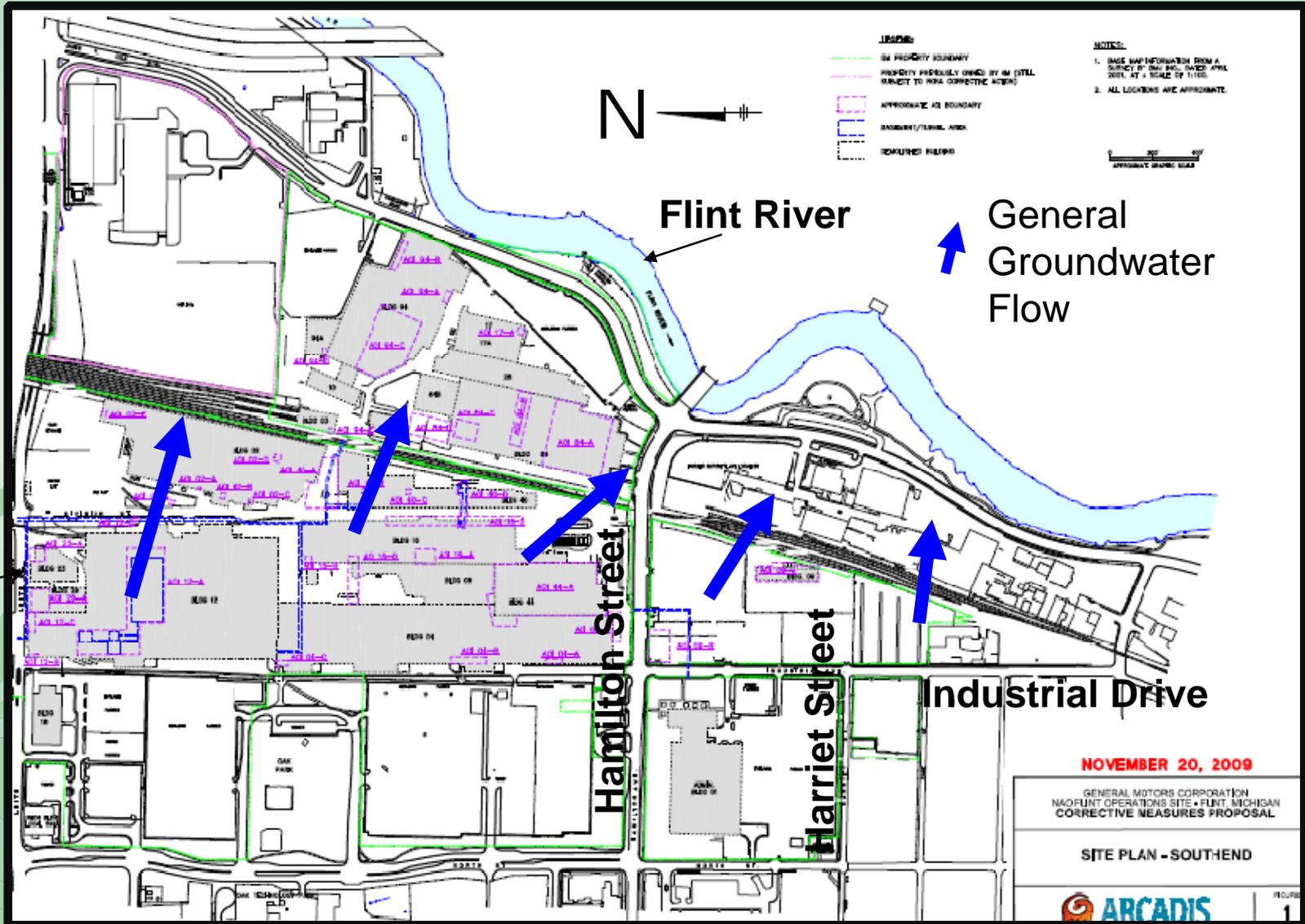


REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Flint North, Mich. (1969, Photorevised 1975).

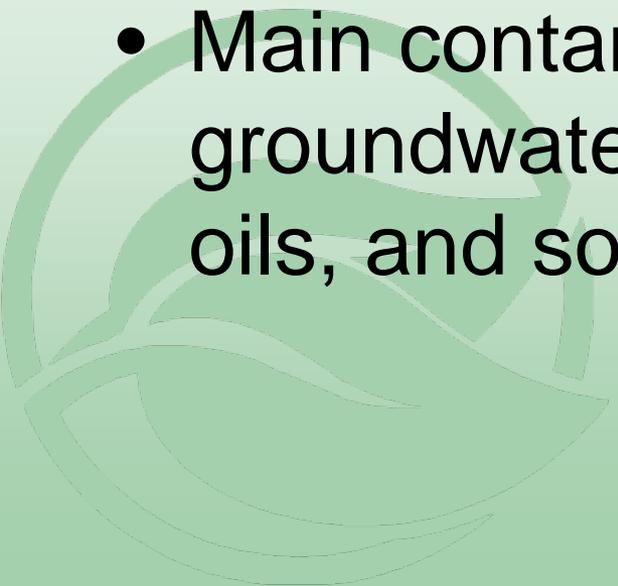
Facility History

- Facility began in the late 1800s manufacturing the horseless carriage.
- The Buick Motor Company was first established in Flint in 1903.
- During World War I, the Buick Motor Company began producing the Liberty Aircraft engine in 1918.
- In 1942, the facility aided the government in the effort in World War II and manufactured plane engines.
- Currently, the Southend buildings have been razed and the existing structures are concrete slabs and asphalt parking lots.
- The Northend operations will be discontinued by the end of this year.

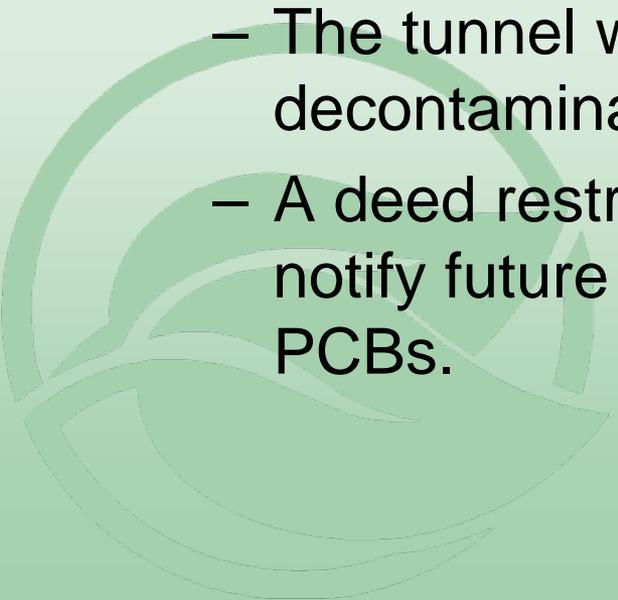
Environmental Setting



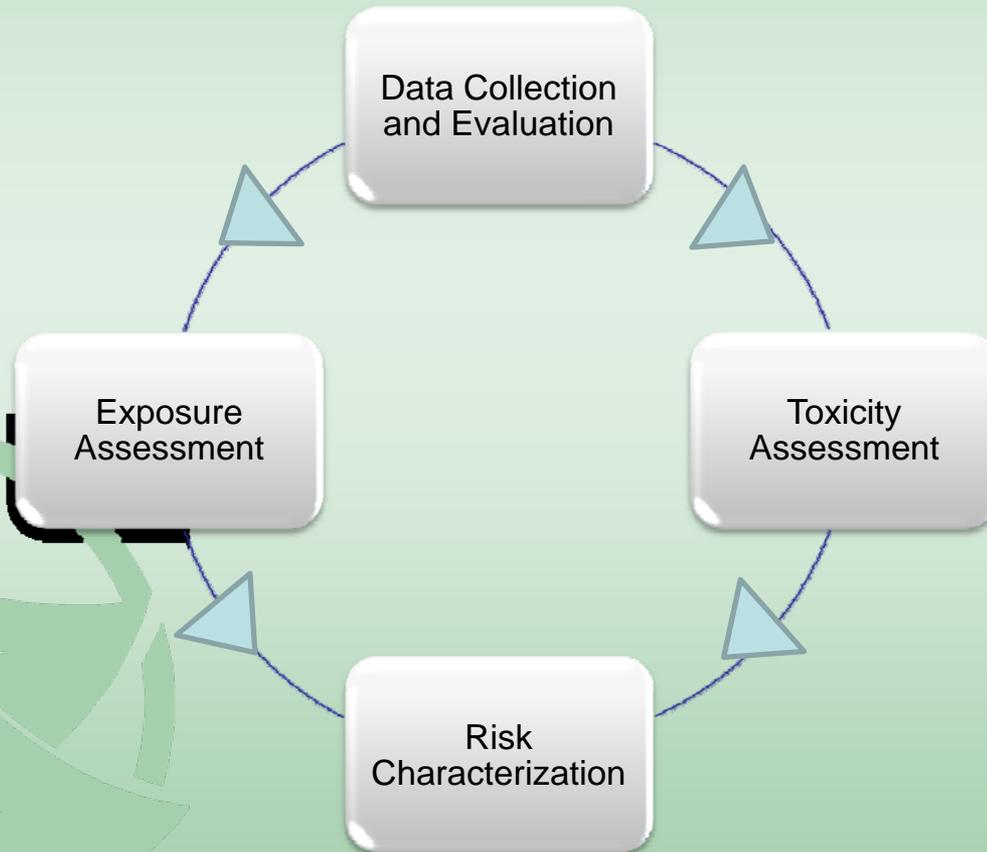
Environmental Investigation Summary

- Hundreds of samples have been taken in order to determine the nature and extent of contamination
 - Main contaminants found in soils and groundwater: metals, gasoline, hydraulic oils, and solvents
- 

Interim Measures

- One recovery system was installed that pumped diesel fuel out of the ground that was released from past operations of the site.
 - The tunnel from Building 40 was found to be flooded and contaminated with PCBs.
 - The tunnel was demolished and materials were decontaminated.
 - A deed restriction must be placed on the property to notify future owners of the possible presence of PCBs.
- 

Risk Assessment

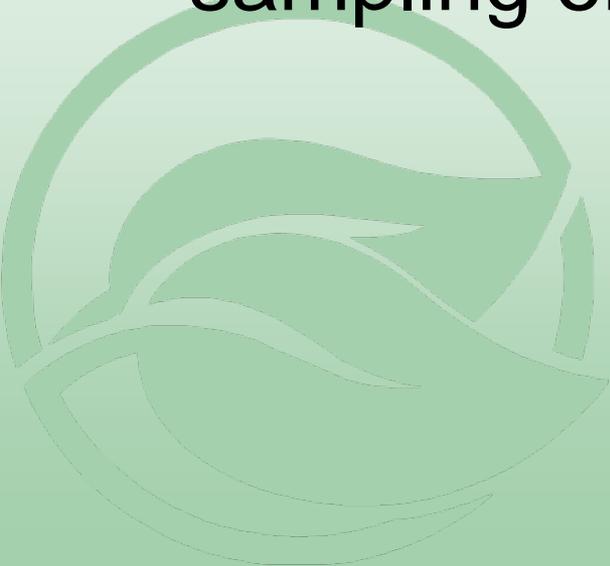


Recommended Remedies

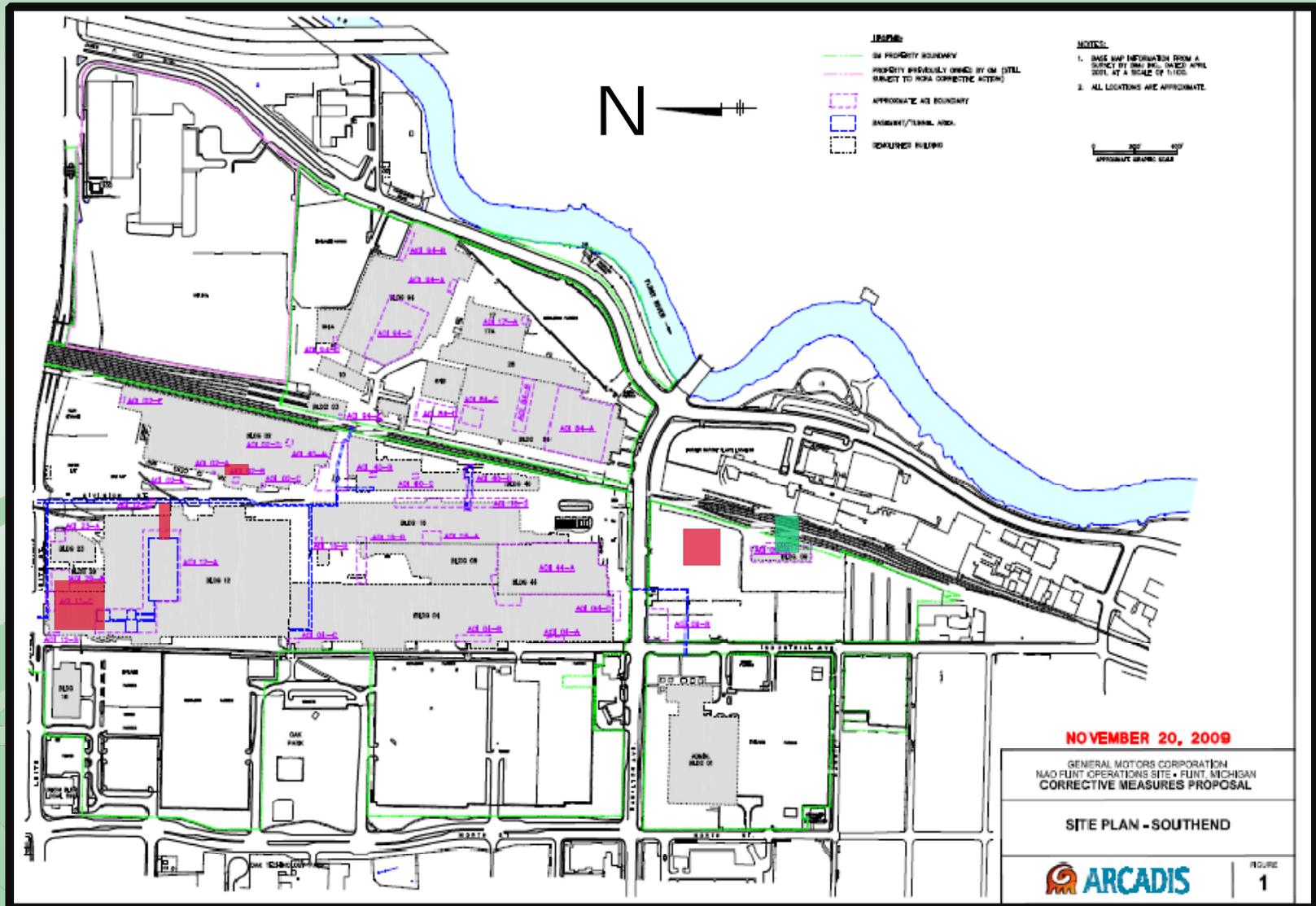


Site Wide Remedy

- Restrict the use of the land to industrial purposes only.
- Limit use of groundwater to environmental sampling only.



Areas with Soil Contamination



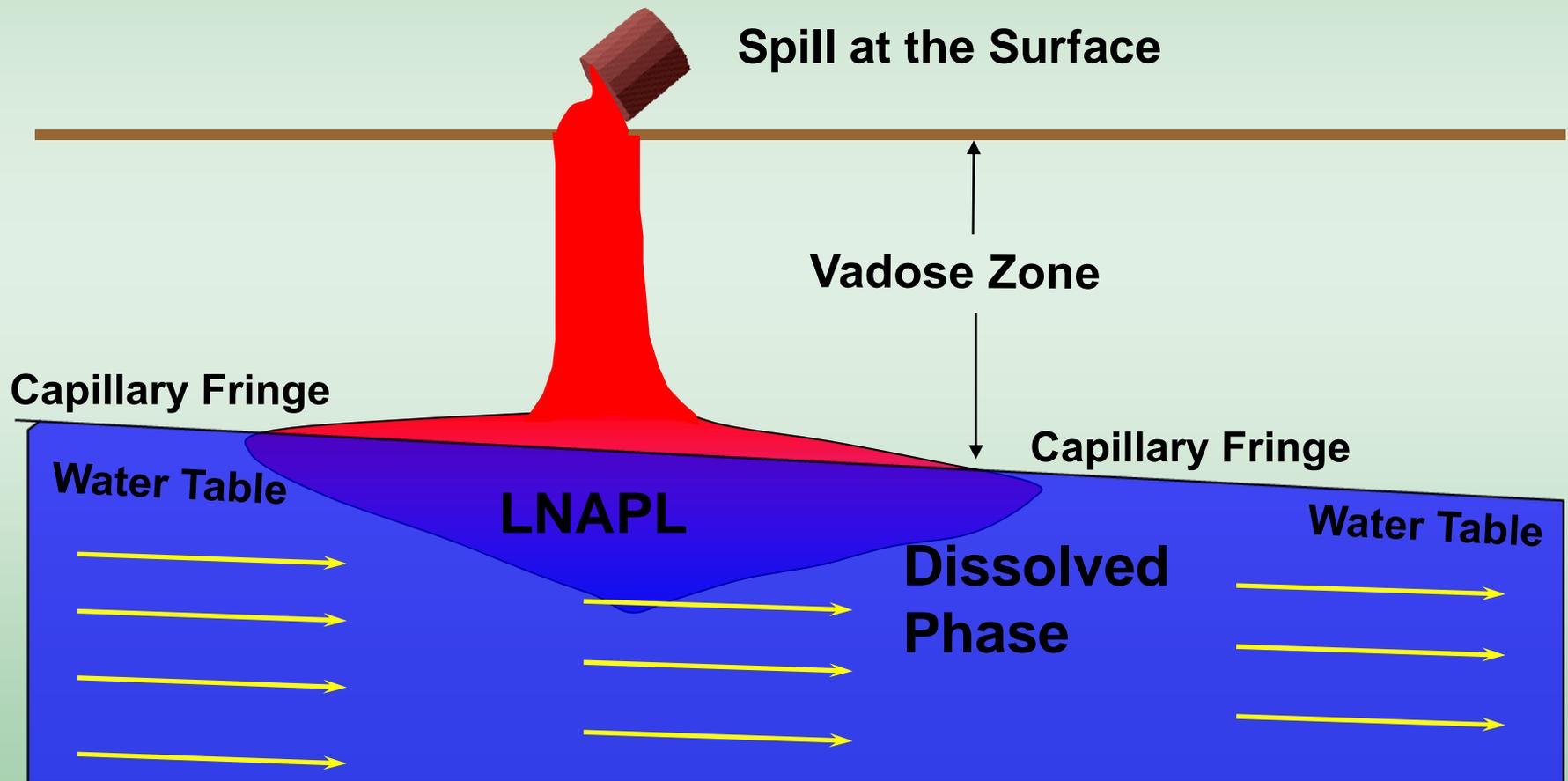
Recommended Remedy for Soils

- On-site soils: Maintain the concrete building slabs and place institutional controls on the property to limit excavation.
 - Off-site soils (CSX Property): Excavation of contaminated soil to unrestricted use levels.
- 

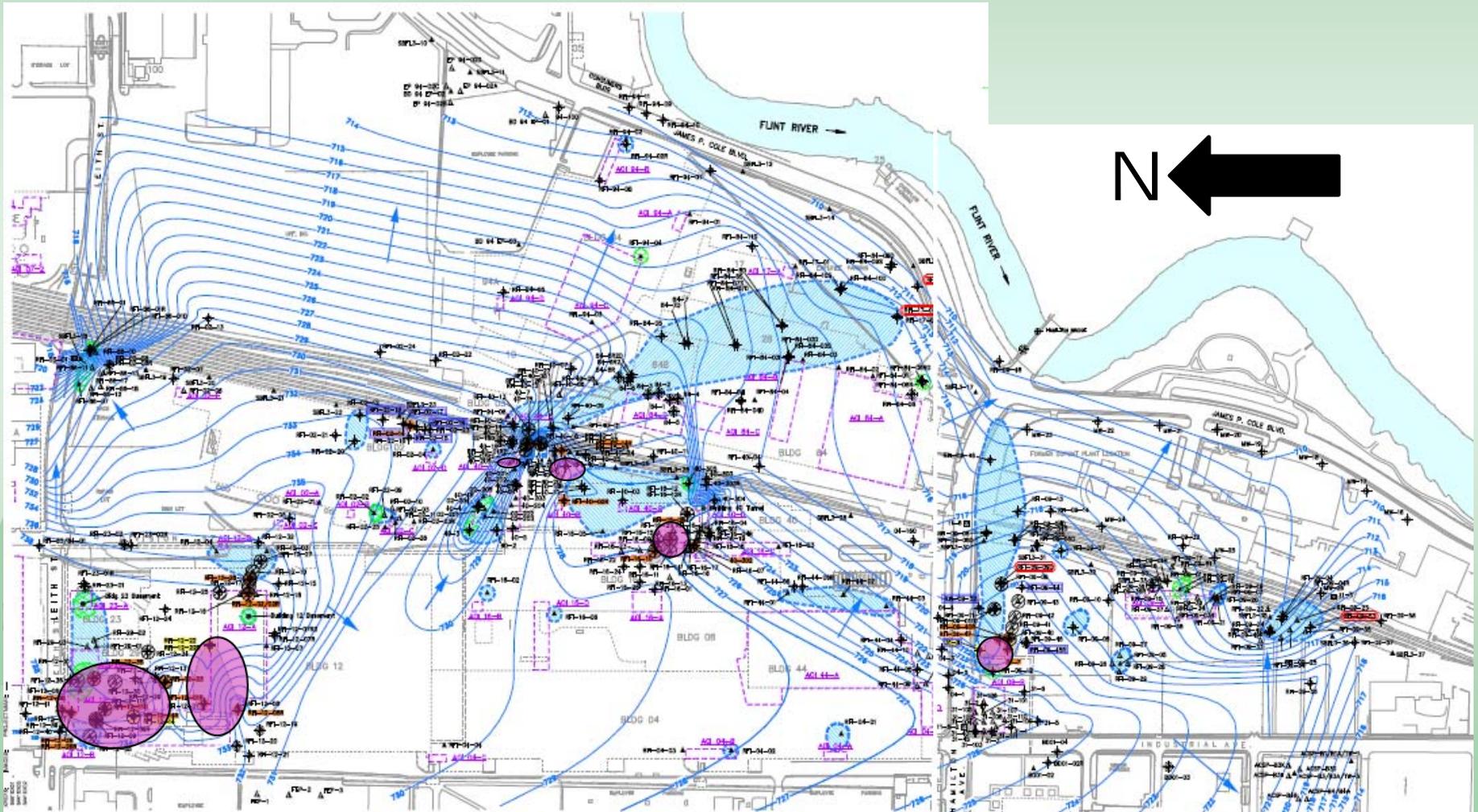
Groundwater Contamination

- There are areas in the ground where hydraulic oils and gasoline are present from old spills and/or leaking underground storage tanks
- Technically speaking, this contamination is called light non-aqueous phase liquids (LNAPL) because it is less dense than water.
- Some of these sources of contamination can cause certain contaminants to dissolve into the groundwater, thereby causing the contamination to travel with the groundwater.

Light Non-Aqueous Phase Liquids (LNAPL)



Areas with LNAPL and Associated Contamination



LNAPL Proposed Remedy

Enhanced Extraction

- A technology that will loosen up the oils and/or gasoline that are present in the ground.
 - This might be multi-phase extraction, where a combination of technologies will be used
 - Also, might be injection of soap, steam, or microbes (bugs), or other technology
 - The material that is loosened and pumped out of the ground will be disposed of at a licensed facility.
- Due to site-specific conditions, field testing must be performed in order to determine what the best technology will be at the site.

Groundwater Monitoring

- Groundwater monitoring will be performed in order to:
 - Measure the effectiveness of the LNAPL remedy
 - Monitor the long-term stability of the contaminants in the groundwater
 - Ensure continued compliance with the Michigan groundwater/surface water interface criteria for the long-term protection of the Flint River

Next Steps

- Respond to all comments received from the public.
 - EPA will write a Final Decision that will document the remedy for the Buick City Site.
 - The property owner will submit to EPA for review and approval a work plan to begin construction of the remedies.
- 

We want to hear from you!



- Comments will be taken after this presentation.



- Write, e-mail, or call EPA with your comments until February 28, 2010.



Contact Information

Jill Groboski, Project Manager
U. S. EPA Region 5
77 W. Jackson Blvd., LU-9J
Chicago, IL 60604
(312) 886-3890
groboski.jill@epa.gov

Rafael Gonzalez,
Public Involvement Coordinator
U. S. EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
(312) 886-0269
gonzalez.rafaelp@epa.gov

