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.

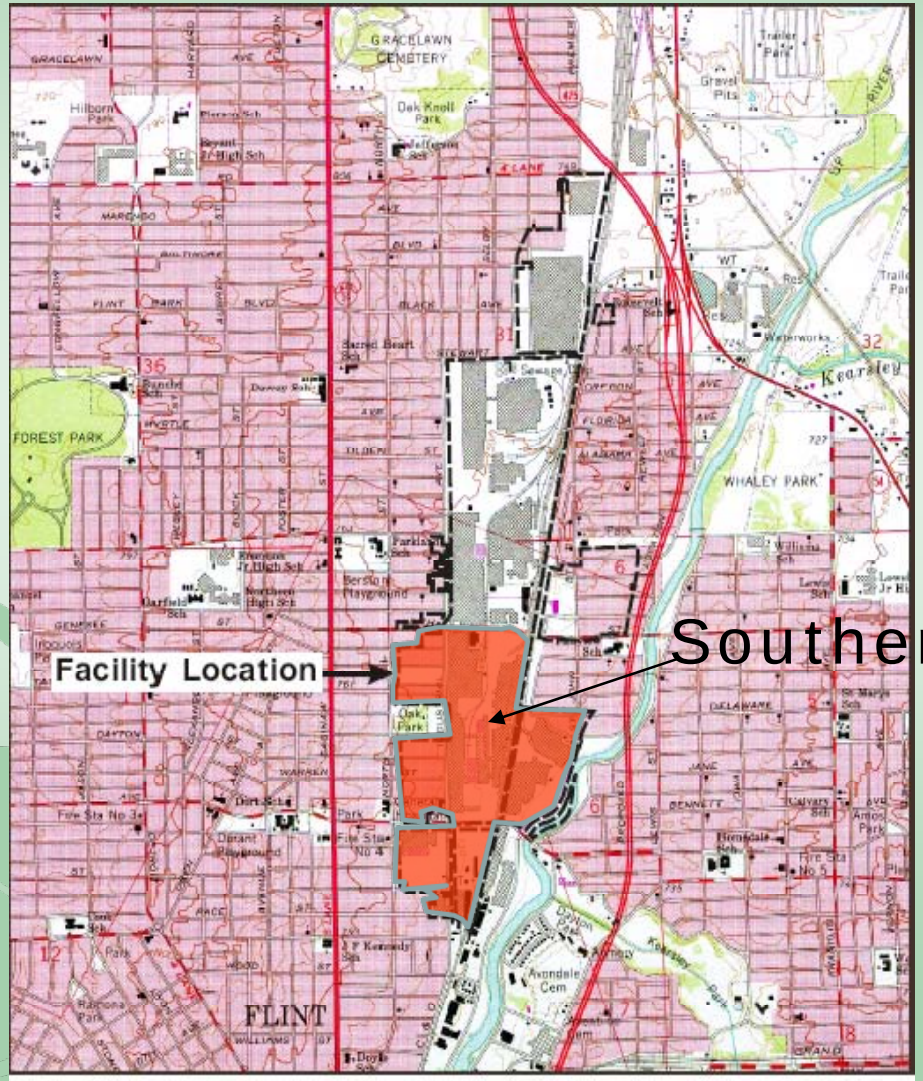
Introduction

- 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

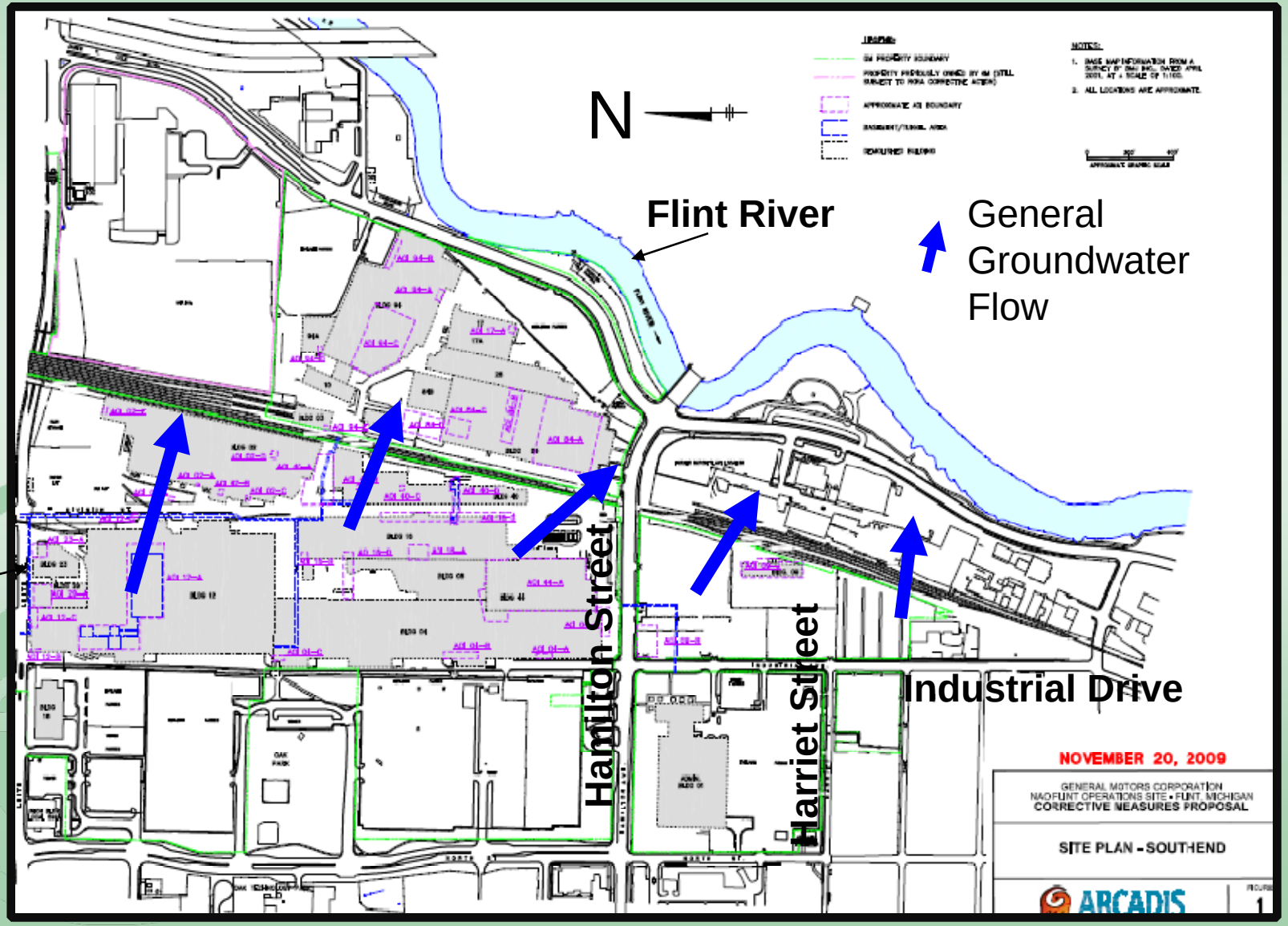


REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Flint North, Mich. (1969, Photorevised 1975).

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

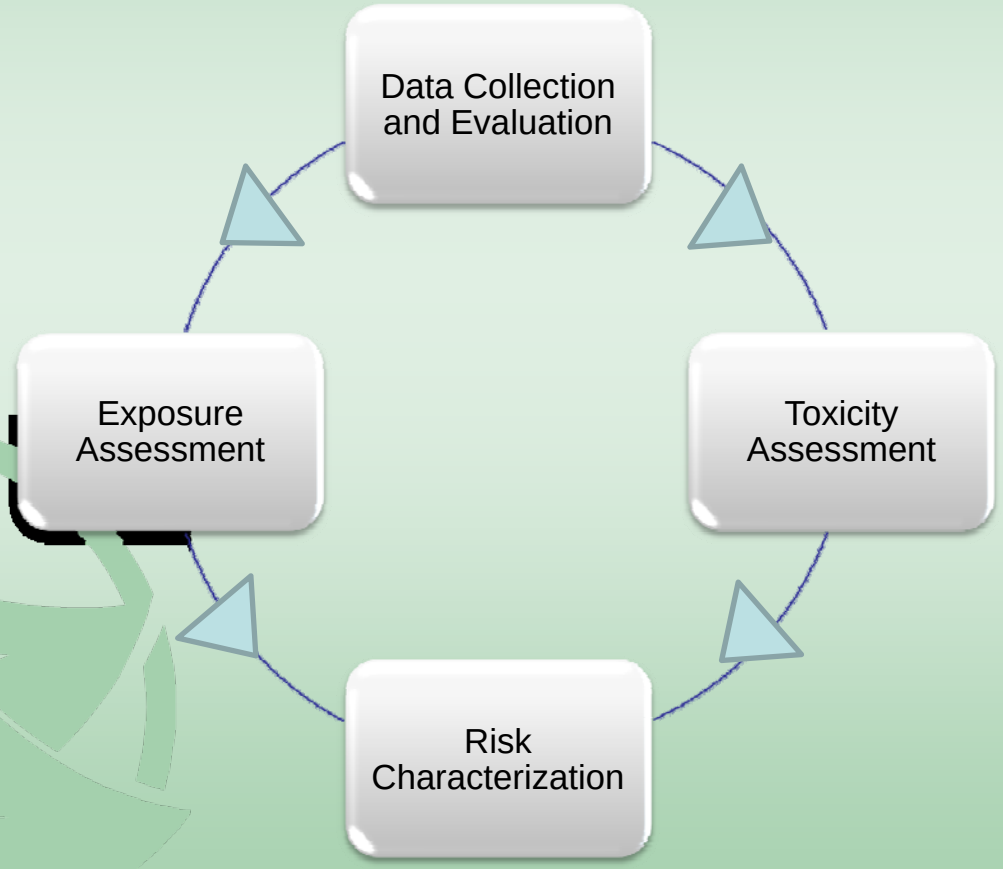
- Hundreds of samples have been taken in order to determine the nature and extent of contamination

- 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

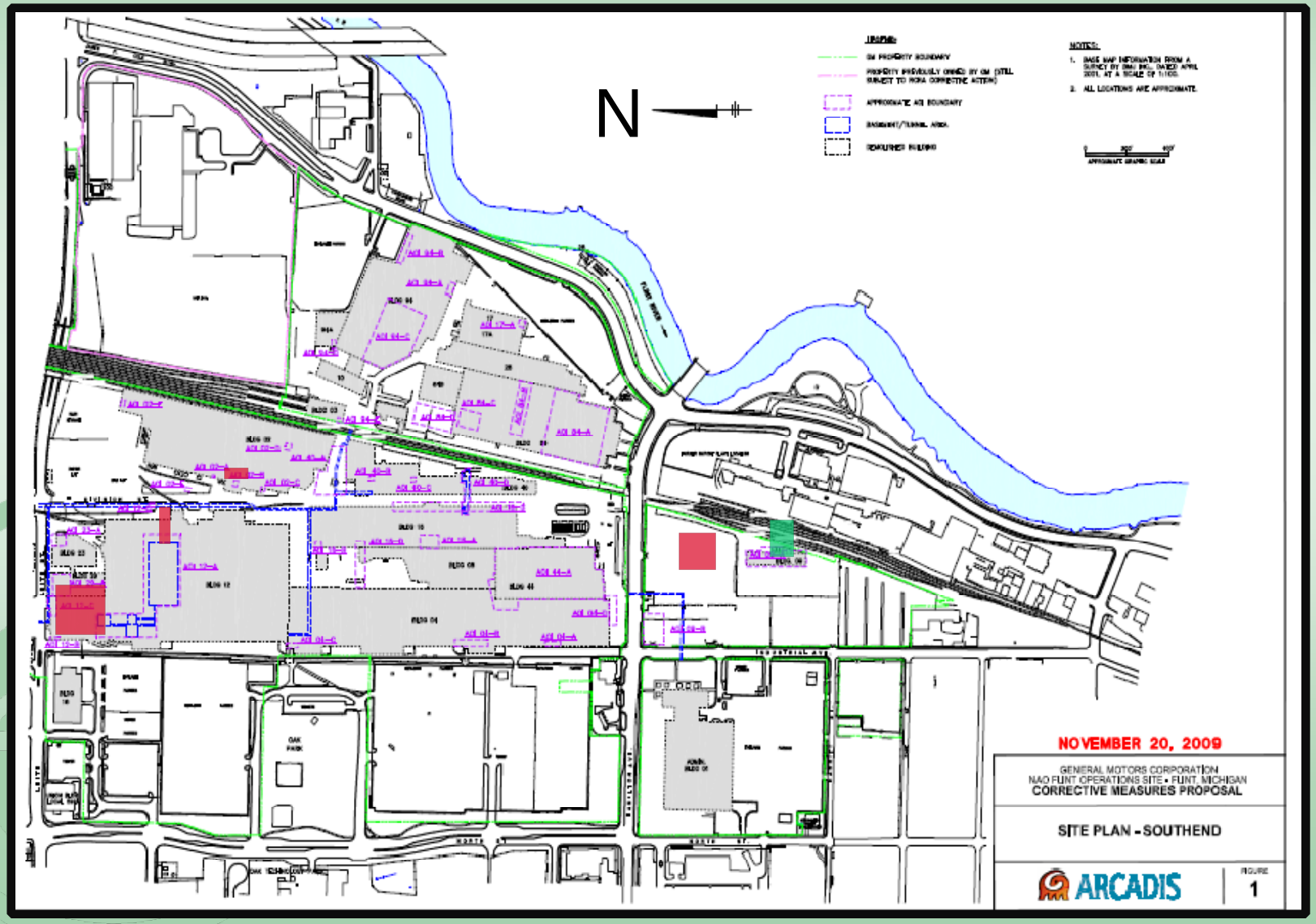


Recommended Remedies

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

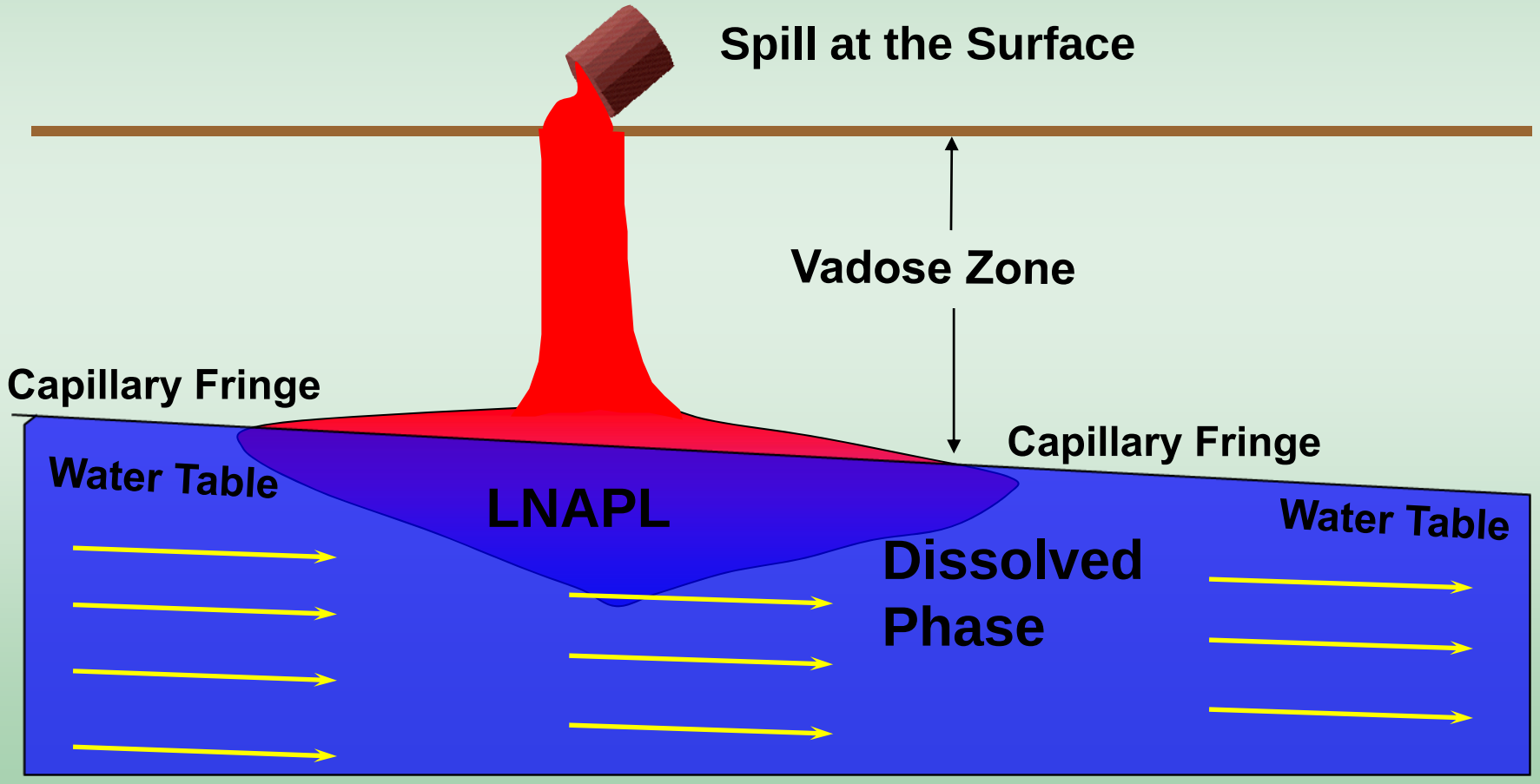
- On-site soils: Maintain the concrete building slabs and place institutional controls on the property to limit excavation.

- Off-site soils (CSX Property): Excavation of contaminated soil to unrestricted use levels.

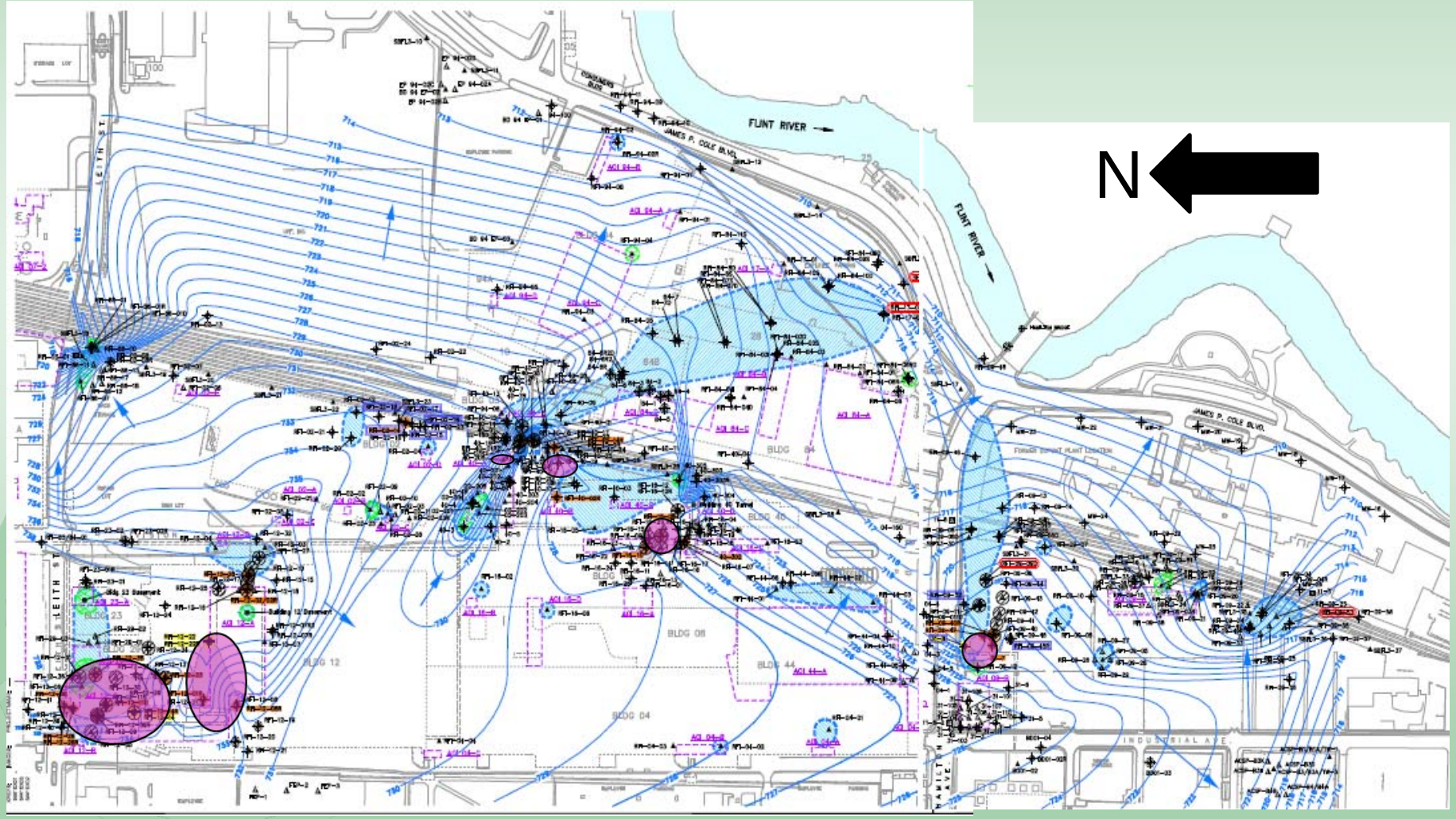
Groundwater Contamination

- 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 mulit-phase extraction, where a combination of technologies will be used
  - Also, might be injection of soap, steam, or microbes (bugs), or other technolgy
  - 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

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