

Wilson Avenue School

Presentation of Remedial
Action Response

NJDEP

August 2010

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Background

- Reports of odors in March prompted the consultant to the Newark Board of Education to sample the water in the schools sump pits.
- The results of the sump water sample showed contamination from gasoline
- Air samples were then taken. Those results led to the students being relocated by the Board of Education.

What caused the problem?

- Groundwater under the school building was apparently contaminated with gasoline from an unknown source.
- Melting snow and heavy rain in March raised the level of the contaminated groundwater up to the gym floor.
- A sump pump clogged and the gym floor flooded.

What caused the problem?

- Vapors from the contaminated ground water entered the school through the sump pits, causing a Vapor Intrusion problem.
- The air samples showed elevated levels of Benzene; 1,4, Dichlorobenzene; and Perchloroethylene.
- Only Benzene was also found in the water at that time.

Indoor Air Samples (Pre-Treatment System Installation)

Contaminant	Level (ug/m ³)	IASL (ug/m ³)
Benzene	1.92-40.3	2
PCE	ND – 6.65	3
1,4 Dichlorobenzene	ND-13.5	3

Objectives

- Protect the students, teachers, and workers by preventing vapors from entering the school through the sump pits.
- Prevent contaminated ground water from overwhelming the sump pumps and entering the school.
- Find the source of the contamination
- Sample nearby buildings

Address vapors in the school.

- Made improvements to the sump pits by covering the sump pits and adding second pump in case one fails
- Installed vent pipes to the roof where it's treated and vented to the air.
- Tests of the INDOOR AIR in the school showed ALL levels BELOW action levels



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Indoor Air Samples Post-Treatment System June 16, 2010

Contaminant	Level (ug/m ³)	IASL (ug/m ³)
Benzene	ND - 3	2
PCE	ND	3
1,4 Dichlorobenzene	ND	3

Indoor Air Samples Post-Treatment System Art Room Area July 29, 2010

Contaminant	Level (ug/m ³)	IASL (ug/m ³)
Benzene	0.7 - 1	2
PCE	ND	3
1,4 Dichlorobenzene	ND	3

Source Investigation

- Sampled the ground water around the school using a "geoprobe".
- Approximately 60 samples were taken from 30 locations.
- The investigation failed to find the source and no further investigations are planned.
- A relatively small area of gasoline related contamination was found.



Nearby Buildings

- Sampled two early learning centers. No elevated results.
- 11 Buildings on adjacent streets, Alyea, Wilson and Ferry were sampled for vapors below basement floor and air in basement.
- Only one building was above action levels
- Limited follow up sampling needed

Additional Activities

- Installation of a Ground Water remediation system.
- Pump the ground water from under the school and send it to PVSC for treatment.
- Monitor sewer lines for vapors .

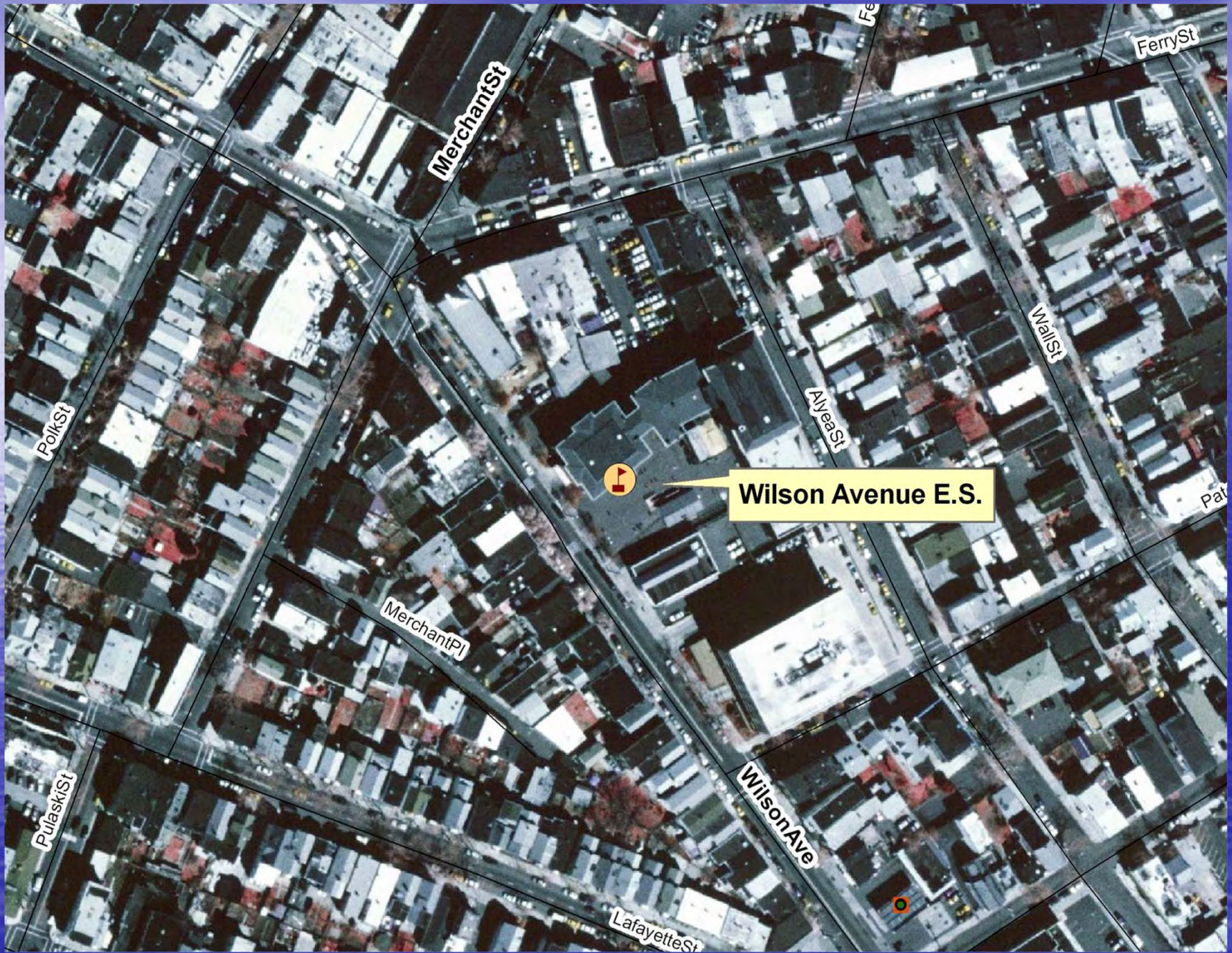




What's ahead.

- Complete construction of the underground piping for the ground water system and begin operation.
- Continue operation of the vapor systems for the sumps.
- Install system in one adjacent commercial structure and do limited sampling.
- Continue to maintain the sump system.

- Updates, including the data, have been posted on DEP's web page, http://www.nj.gov/dep/srp/community/sites/newark_wilson_ave_school/
- Documents will be placed in the Newark Public Library, Van Buren Branch at 140 Van Buren Street, Newark NJ 07105



Wilson Avenue E.S.