

Municipal Setting Designations



MSDs: A new tool for Houston

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Sr. Project Manager



Agenda

- Why are we here?
- Whom does it impact?
- What is an MSD?
- Why support an MSD?
- Steps in processing an MSD
- Particulars on this application
(Representatives of Applicant to speak)
- Public comment and questions



- I will talk about the MSD process only.
- The applicant's representative will talk about the site and their clean up activities.
- Please hold your questions about the site until the applicant's presentation.
- Please restrict your questions to the slide that is showing or wait till the end of the presentation



Why Are We Here?

- Inform you about an application for the City to support a Municipal Setting Designation (MSD) on a site
- Explain what is a MSD and what it does for the applicant, the local community, and the City
- Give you a chance to tell the City what you think about the site and the process.



Whom Does It Impact?

- Unless you are the applicant:
 - A MSD does not affect your property
 - A MSD does not affect your water well
 - There are no requirements on you
- Drinking water supplied by the City is not effected

The MSD Approach



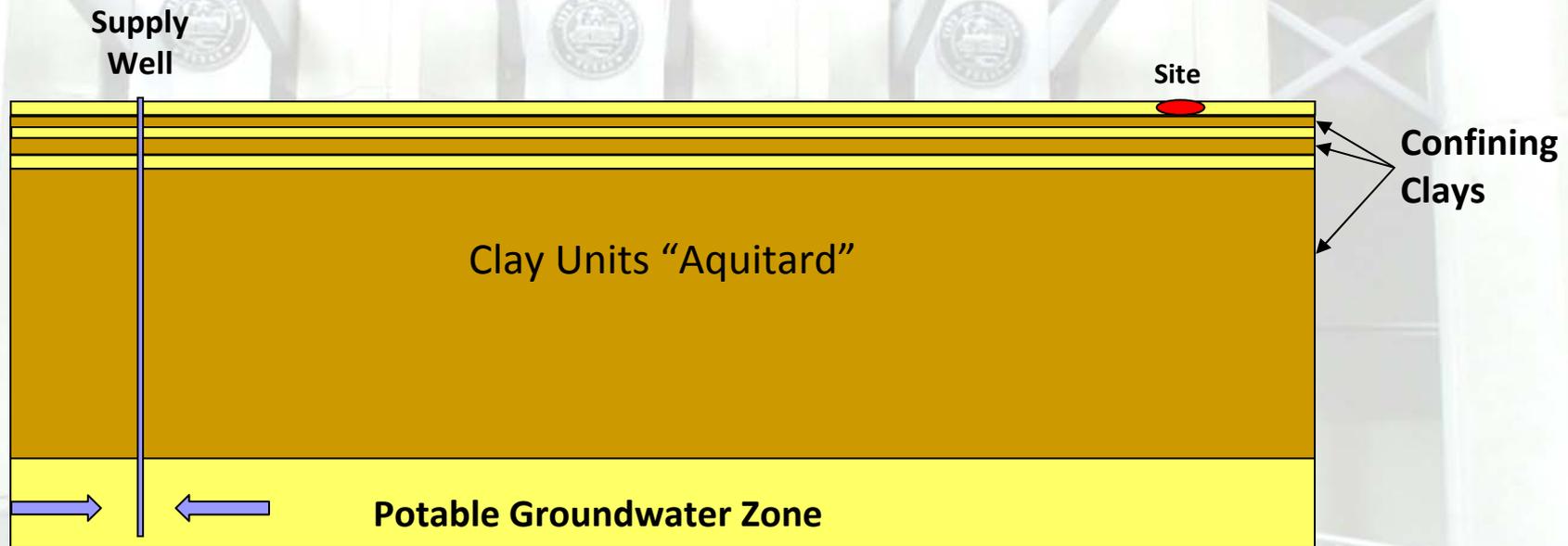
- Voluntary restriction to prevent the use of contaminated groundwater
- Alternate method to address groundwater contamination
 - State program created in 2003, administered by Texas Commission on Environmental Quality (TCEQ)
 - City process created in November 2007, administered by Public Works & Engineering
- Property owner requests participation (can be private or public owners)

Groundwater Contamination



- Houston has shallow groundwater contamination scattered across the city from former uses (industrial sites and businesses)
- Houston's drinking water come from either deep aquifers or surface water
- This program only considers very shallow contamination (up to 200' below the ground surface)

Shallow Contamination



Drinking Water Supply Wells typically get water from 600 feet or deeper below the surface.

Impacted groundwater is typically between 20 and 60 feet below the surface.

Problems of Traditional Remediation Methods



- Groundwater must be cleaned to drinking water standards even if:
 - There is no need or desire to use it, or
 - Water bearing zone is too silty, too salty, or low producing
- Groundwater remediation to drinking water standards is inefficient, costly, and can take decades



A MSD Does not

- Does not excuse the applicant from reducing other risks to the public
- Owner must still address:
 - Ingestion of contaminated soil
 - Inhalation of vapors
 - Physical contact with contamination
 - Migration to surface water

City's Expectations of a MSD Applicant:



- Site must already be in a State or Federal clean up program
- Site must have been thoroughly investigated
- Data must show that the groundwater plume is stable or diminishing.
- A P.E. or P.G. must be willing to certify that the plume is stable or contracting.



Today's Meeting

- Mandatory step in the process
- Applicant has requested City support for application:
 - MSD # 2009-017-FRM “Former Rheem Manufacturing Site”
- Gather input from surrounding property owners
- TCEQ cannot approve an MSD without the City Council's support

Why Support A MSD?



- Protects the public from consumption of shallow contaminated groundwater (drinking water is supplied by the City through a separate system)
- Encourages cleanup of contaminated sites through participation in a State or Federal program
- Promotes redevelopment of under-utilized properties



Next Steps

- Based on input from this meeting and the public hearing, City will consider supporting a MSD
- If supported, applicant submit their application to TCEQ
- TCEQ grants or denies MSD
- If granted, City files restriction on property deed

The MSD Website



City of Houston eGovernment Center - Windows Internet Explorer

http://www.houstontx.gov/

File Edit View Favorites Tools Help

Favorites City of Houston eGovernment Center

 **City of Houston** *En Español*

The Official Site for Houston, Texas

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Friday, November 6 - 2009



- Boards & Commissions
- Brownfields
- Building Permits
- Code Enforcement
- Code of Ordinances
- Delinquent Taxpayers
- E.B. Cape Training Center
- Flexible Workplace Initiative
- LARA / Houston HOPE
- Municipal Settings Designations
- MWDBE / SBE Directory
- One Stop Business Center
- Real Property For Sale
- Register as a City Supplier
- more ...

of Houston's Residential Energy Efficiency Program receives federal funds to help weatherize low-income homes for Houstonians

"Meet the Buyer" Purchasing Forum Information and Registration

LED Traffic Light Installation Reaches Milestone With Energy Cost Savings Already Being Seen

- Houston Expands Single-Stream Recycling Program, To Reward Residents for Recycling with RecycleBank
- Courts celebrate Municipal Courts Week Nov. 2-6, 2009 (.pdf)

Public Hearing



- Date: January 27, 2010
- Time: 9:00 am
- Place: City Council Chambers
- Address: 901 Bagby, Second Floor
- Address: Houston, Texas 77002

Any person wishing to speak on this issue must contact the City Secretary's office at (832) 393-1100 to reserve time not later than 8:30 am on 1/27/10.

Contact Information



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Property: 1025 Lockwood Drive

Previous Owner: Rheem Manufacturing Company

Current Owner and MSD Applicant: Annie D. Adams Family Partnership

Presenter:

Laurie Rodriguez
ARCADIS

Other Representatives:

Jim Smith (attorney for Rheem)

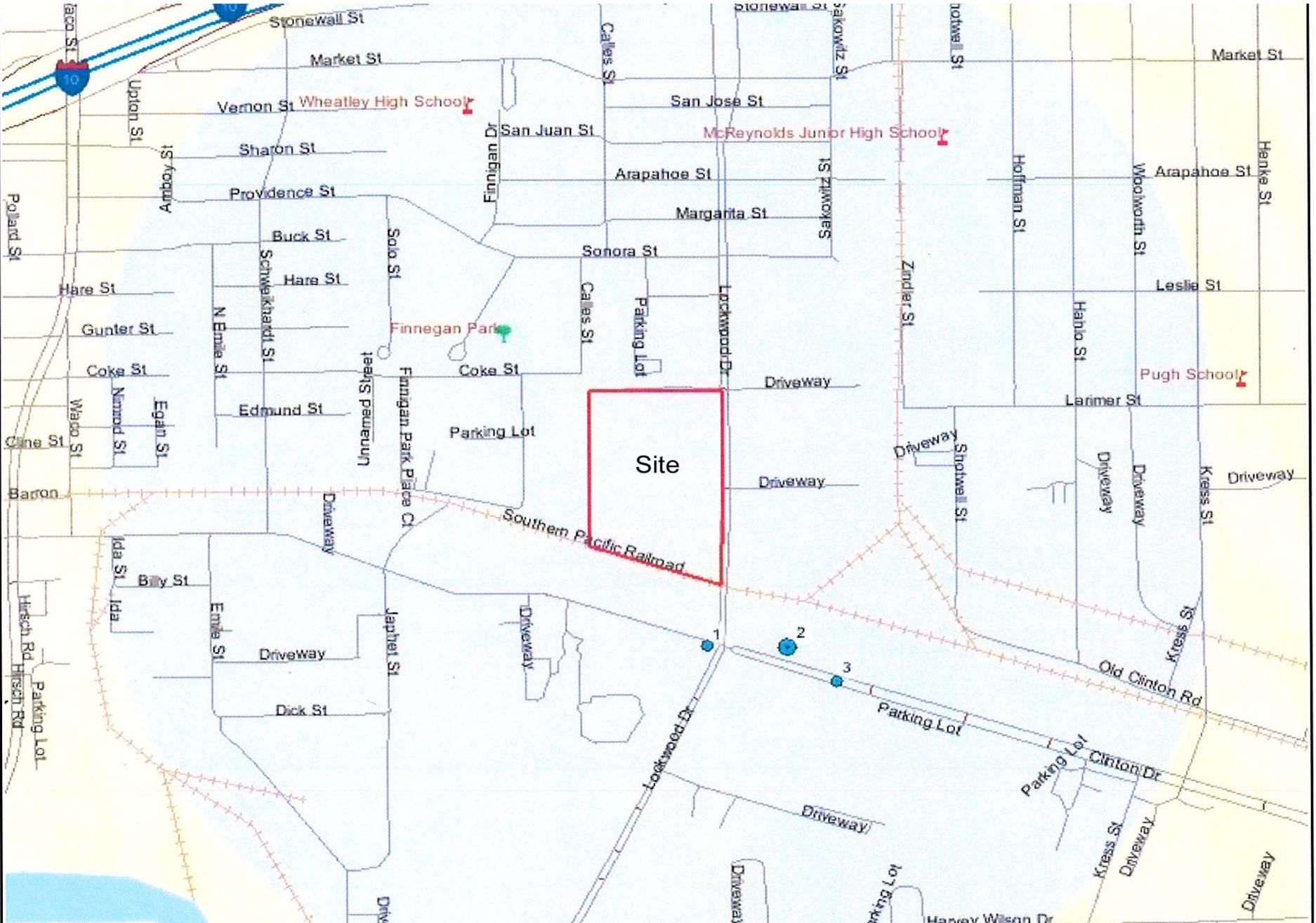
Michael Northcutt (attorney for Adams Family)

Benefit to the Public

- The MSD will:
 - Prevent future consumption of shallow groundwater
 - Allow timely closure of the Site by the TCEQ
 - Encourage future redevelopment
 - Enhance future property values

Site Description

- 12.4 acre property
- 3 miles east of downtown Houston.
- Primarily commercial/industrial area with some residential
 - Site and other area properties are warehouses
 - Former Cameron International Corporation to the north (now owned by Westbrook LLC)
 - Vacant lot to west
 - Lockwood Drive to east
 - Railroad tracks to south
 - Finnegan Park and residential area to northwest



Site

Southern Pacific Railroad

McReynolds Junior High School

Wheatley High School

Finnegan Park

Pugh School

1

2

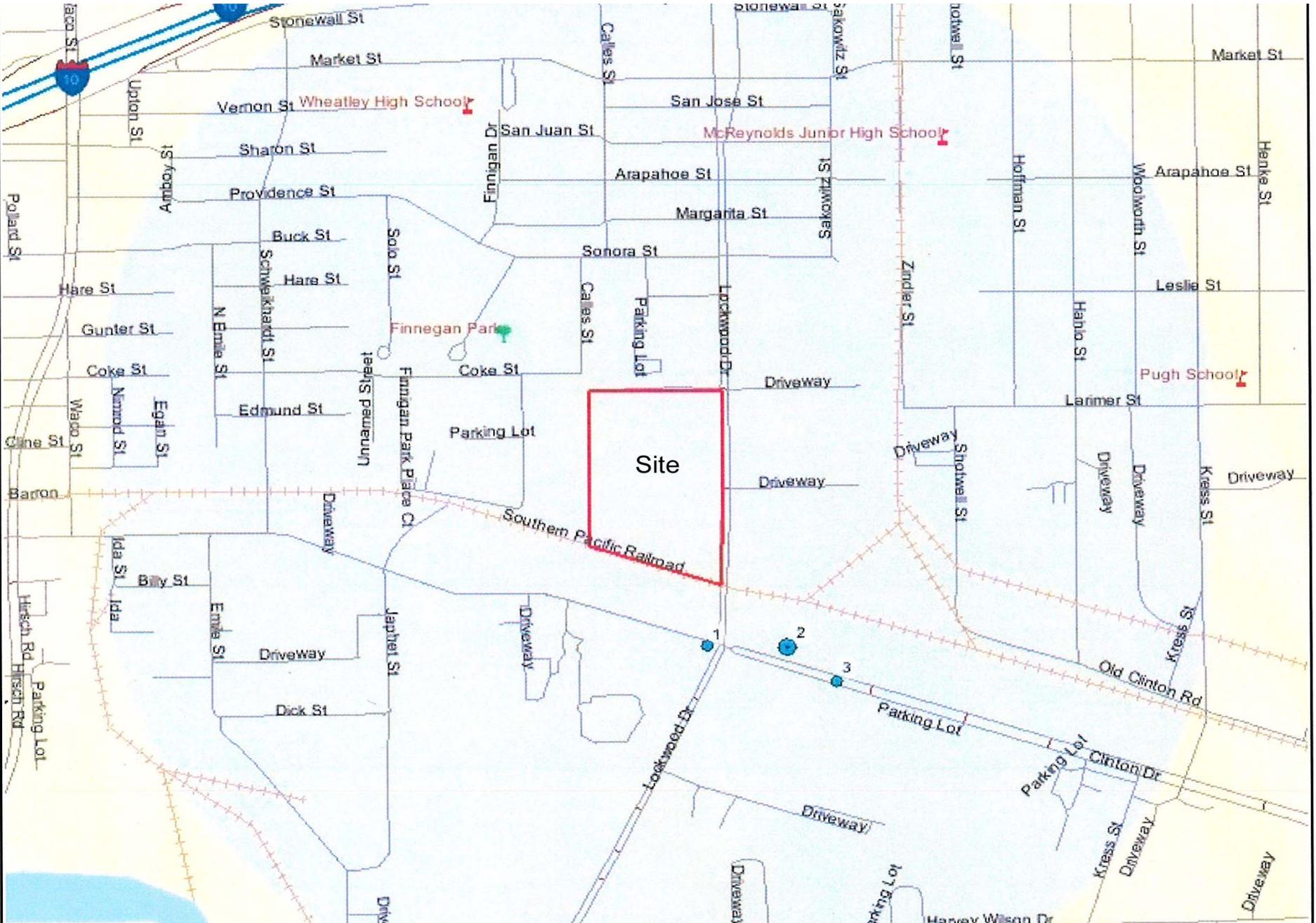
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Lockwood Dr

Parking Lot

Parking Lot

Parking Lot





Margerie St.

Sonora St.

Finnigan Park

Finnigan Park

Callie St.

Coke St.

McReynolds Park

SITE LOCATION

Lockwood Dr.

Clinton Dr.

Clinton Dr.

Current Site Contamination

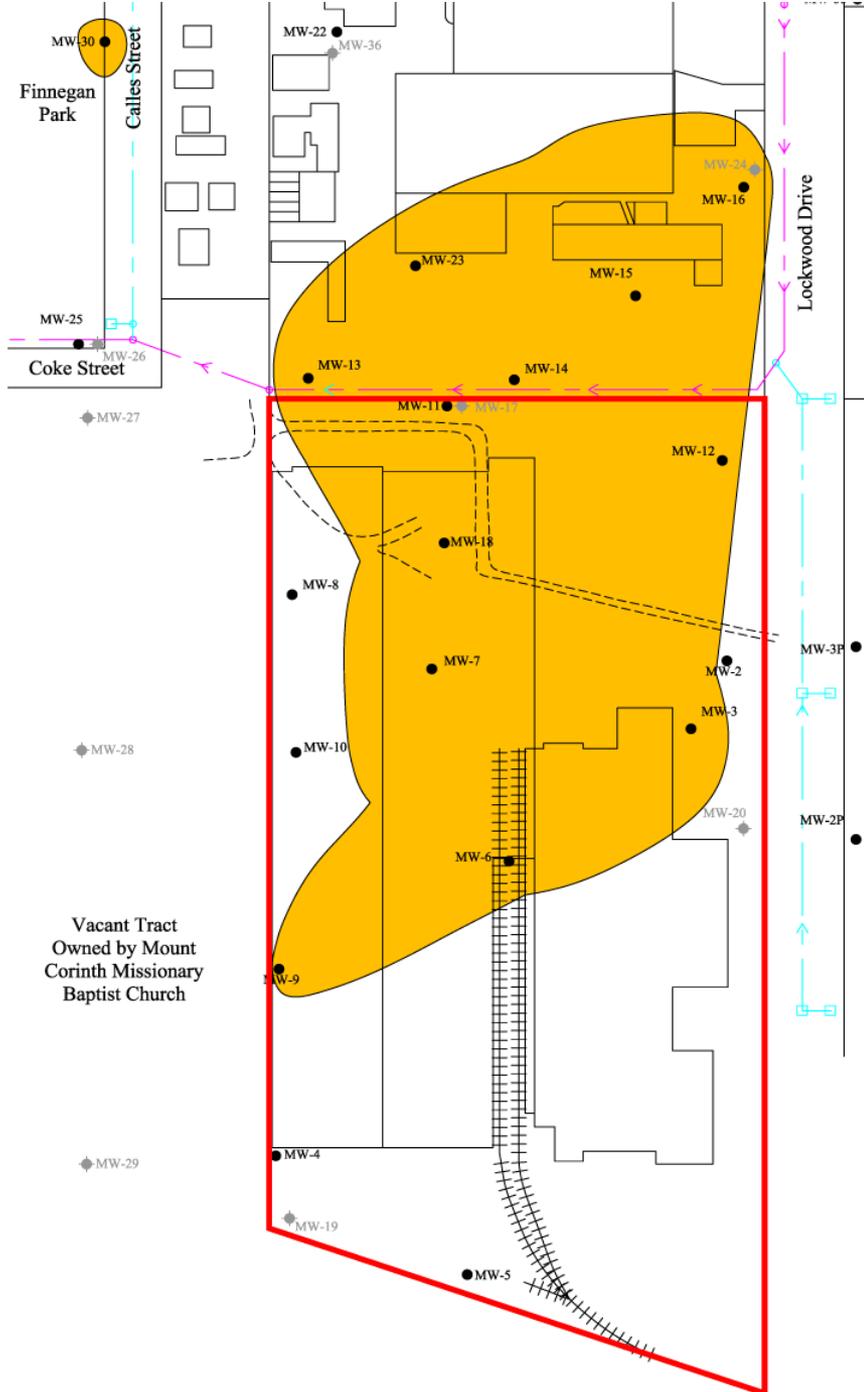
- Volatile Organic Compounds (VOCs) are present in soil and groundwater:
 - Tetrachloroethene (PCE)
 - Trichloroethene (TCE)
 - cis-1,2-Dichloroethene (cis-1,2-DCE)
 - Vinyl Chloride (VC)
- These solvents were very commonly used for equipment cleaning and dry cleaning between 1930s and 1990s
- Groundwater contamination is from two separate plumes that mingled together.

Site History

- Rheem manufactured steel containers and drums between 1930s and 1985
 - Used by the Federal Government during WWII and Korean War for munitions
 - Source of contamination was not determined, but may have come from contaminated soil brought in the 1950s to fill in drainage ditch.
 - Rheem sold the property to Tom and Annie Adams in 1990.
- Cameron's predecessor (Cooper) operated the adjacent property to the north
 - Manufactured oil field equipment
 - Used similar solvents
 - Sold their property to Westbrook in 1997
- Rheem and Cameron worked together with the TCEQ to address the groundwater contamination

Remediation Efforts

- Investigations began in 1990 and for the two properties included:
 - 67 borings (over 250 soil samples)
 - 37 monitoring wells (over 600 groundwater samples)
- The extent of the contamination has been defined
 - Generally confined within the two property boundaries
 - Some minor contamination off-site could be from some other source
 - Contamination is limited to shallow groundwater. Area production wells are much deeper



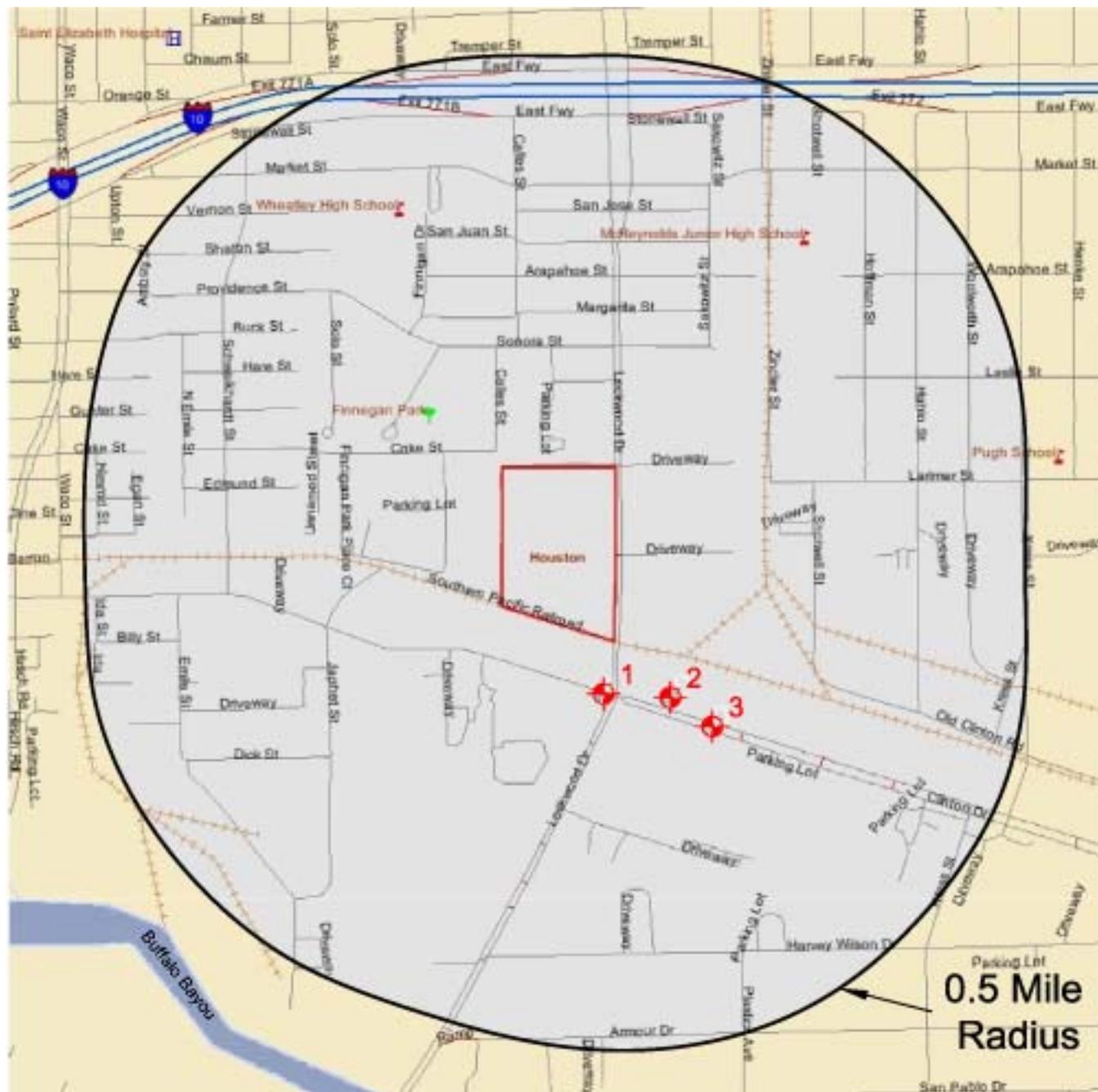
Finnegan Park

Coke Street

Calkes Street

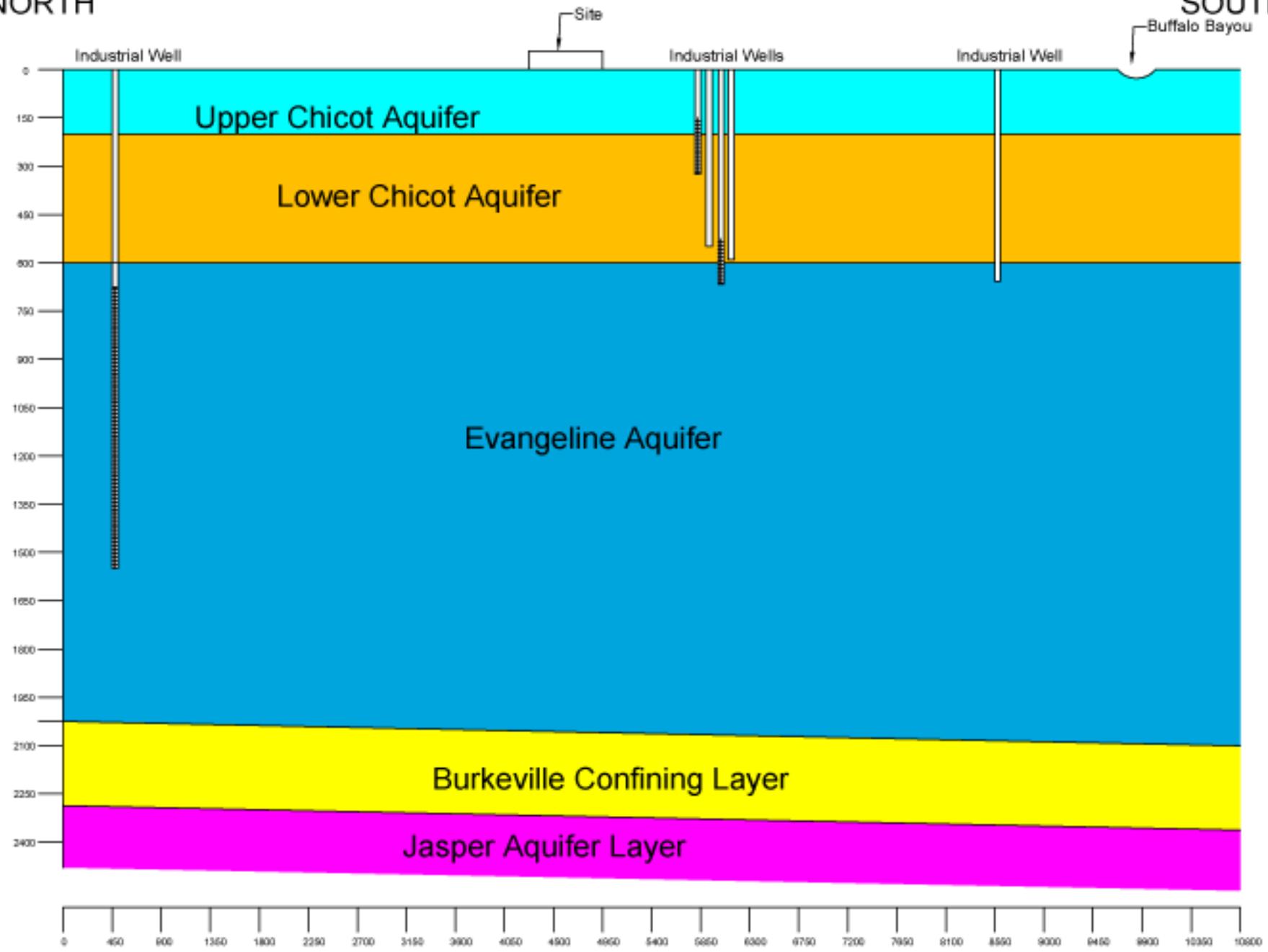
Lockwood Drive

Vacant Tract
Owned by Mount
Corinth Missionary
Baptist Church



NORTH

SOUTH

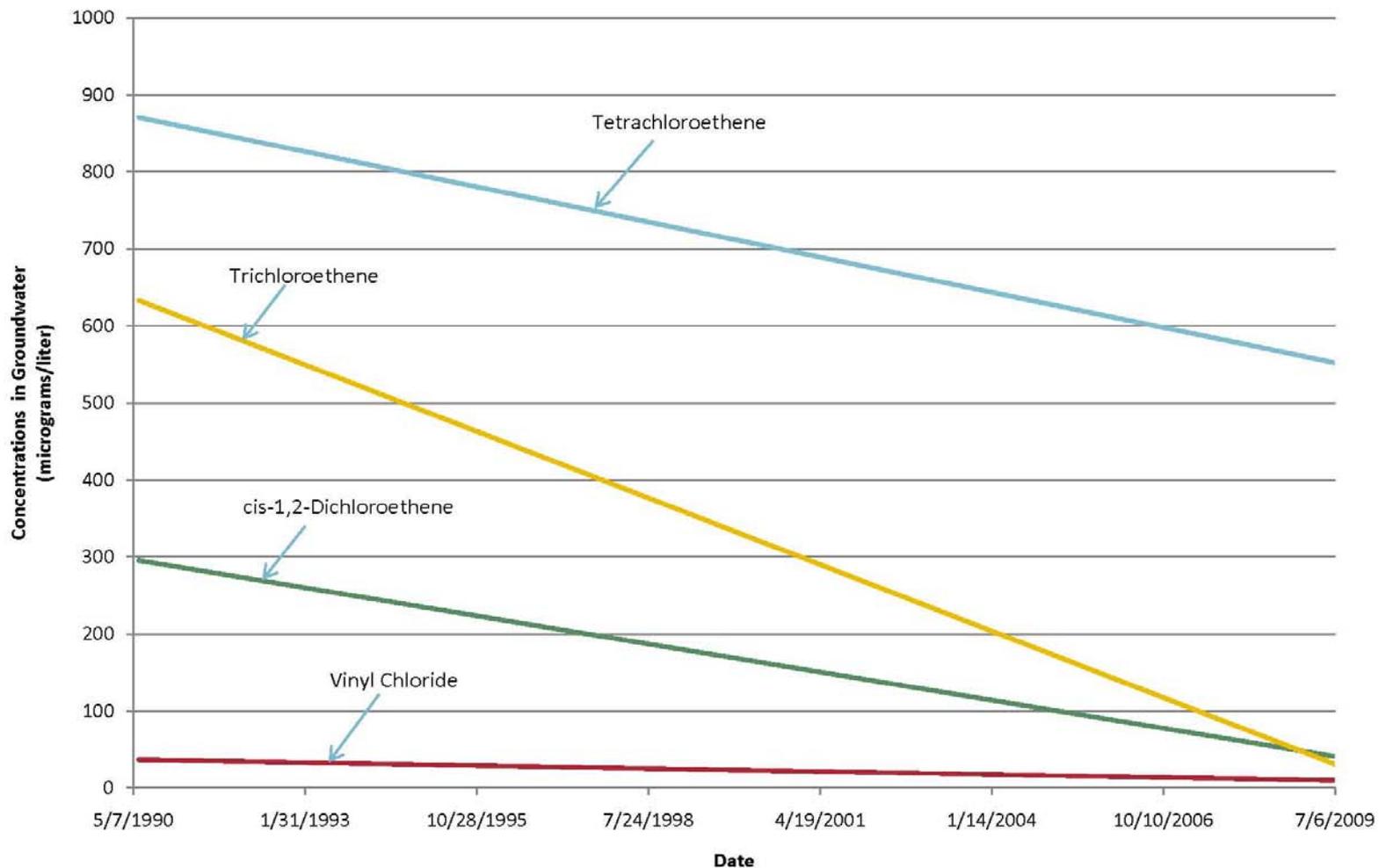


Horizontal Distance in Feet

Remediation Efforts (continued)

- Natural attenuation (biodegradation, dispersion, dilution, etc.) is occurring
 - The TCEQ approved a natural attenuation remedy and supports the MSD
 - Contaminant concentrations have declined significantly over time
 - Size of the plume has decreased over time

Average Chlorinated Volatile Organic Compound Concentrations



Summary

- The property is in a largely commercial/industrial area.
- Shallow groundwater contains chlorinated volatile organic compounds
- Contamination is generally confined within the two properties
- Contamination is shallow and does not threaten deeper water resources
- Rheem and Cameron worked together with the TCEQ to address the contamination
- Concentrations have decreased significantly over time
- Shallow groundwater is not generally used in this area, but a MSD will ensure it will not be used in the future.

Questions?

Thank you for coming!

We appreciate your time and
interest in our application.