

Municipal Setting Designations



MSDs: Another tool for Houston

Richard Chapin
Sr. Project Manager

Jedediah Greenfield
Environmental Analyst

Municipal Setting Designations (MSDs)



Agenda

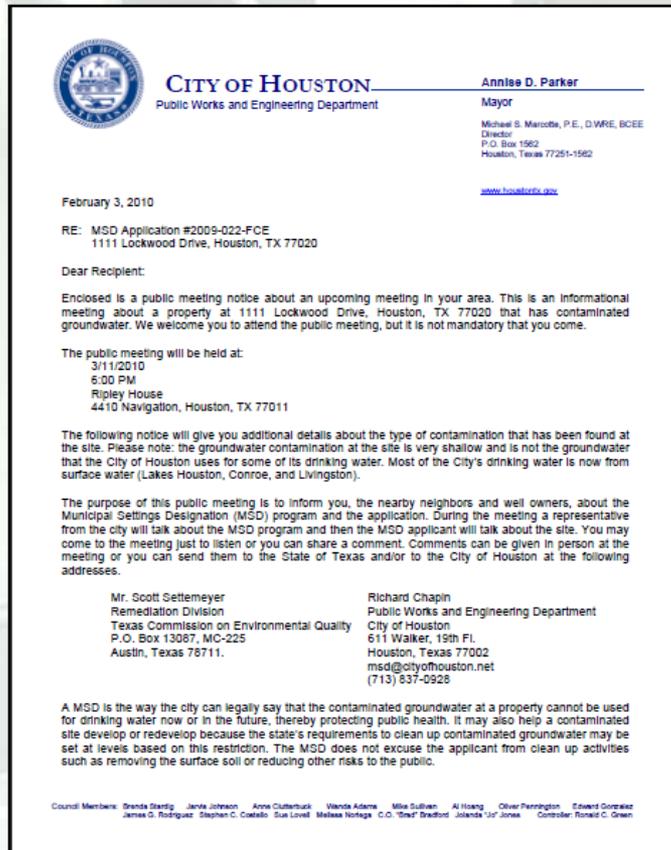
- City of Houston
 - Why we are here
 - Who the MSD impacts
 - What an MSD is
 - Why support an MSD
 - Steps in the MSD process
- MSD Applicant
 - Specific information on the site
1212 Milby and 3503 – 3719 Polk Street
- Public comment and questions

Why Are We Here



- Inform you about an MSD application
 - Hoerbiger Corporation of America, Inc.
 - MSD #2009-016-Milby
- Explain what an MSD is and what it does for the applicant, the local community, and the City
- Receive public comments

MSD Notice Letters



- Public Notices:
 - Property owners
First Class Mail
½-Mile
(City Requirement)
 - Water well owners
Certified Mail
5-Miles
(State Requirement)

Who the MSD Impacts



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

What an MSD is



- Voluntary deed restriction to prevent the use of contaminated groundwater
 - State program created in 2003, administered by TCEQ
 - City process created in November 2007, administered by Public Works & Engineering
- TCEQ cannot approve an MSD without the City Council's support



What an MSD is

- An alternative method to address groundwater contamination
- Houston has shallow groundwater contamination scattered across the city
- This program only considers very shallow contamination (up to 200' below the surface)

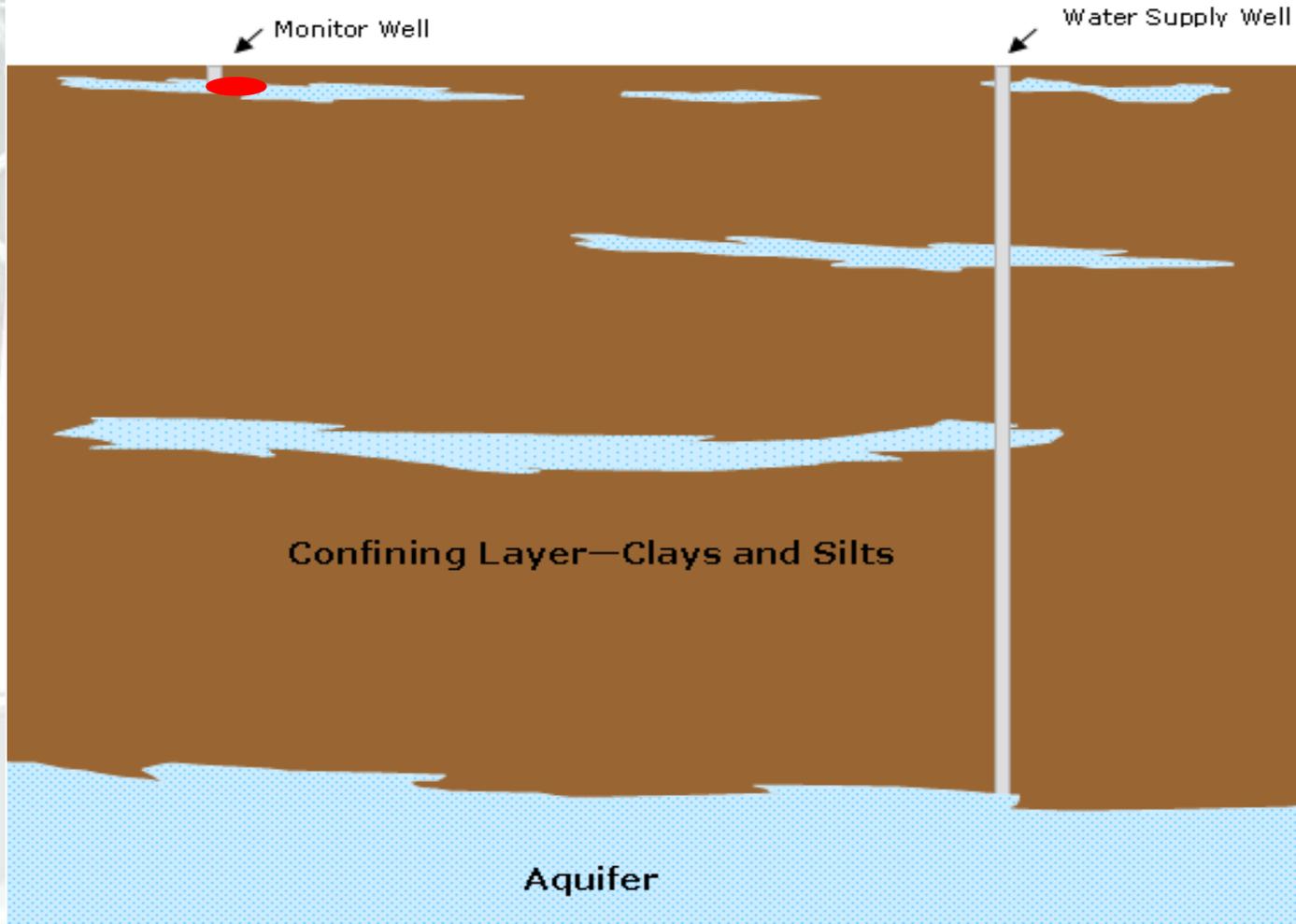
City Water Supply



- Houston's drinking water comes from either deep aquifers (20%) or surface water (80%)
 - Nearest public water supply well (treated)
 - Central Well-21
 - 2.6 Miles from site
 - Depth 1610 ft.
 - Surface water supply
 - Lake Houston
 - Lake Conroe
 - Lake Livingston
 - Trinity River



Shallow Contamination



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

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

Problems of Traditional Remediation Methods



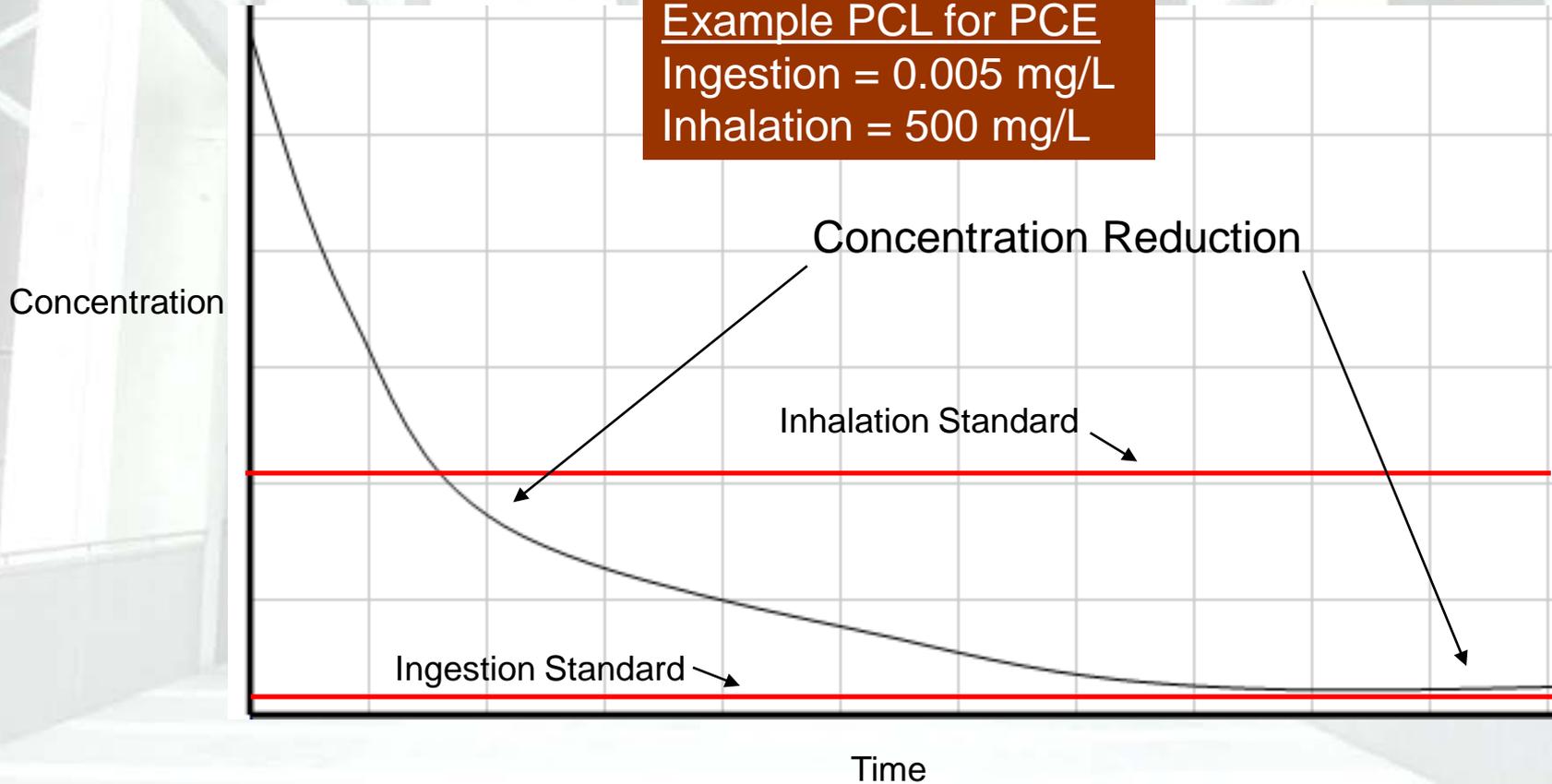
- Groundwater must be cleaned to drinking water standards even if:
 - There is no need or desire to use it, or
 - Water bearing zone is too silty, too salty, or low producing
- Groundwater remediation to drinking water standards is inefficient, costly, and can take decades



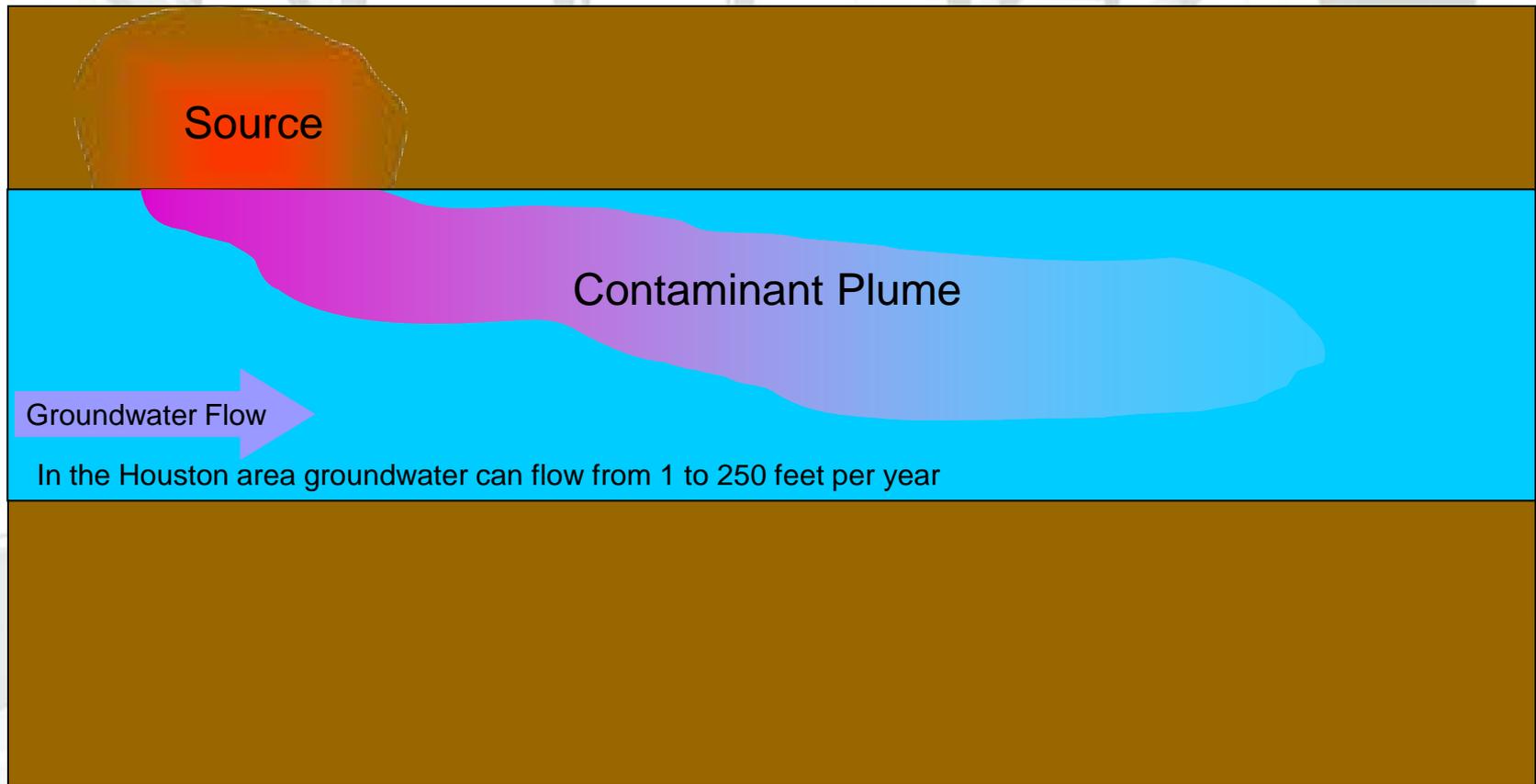
Groundwater Remediation



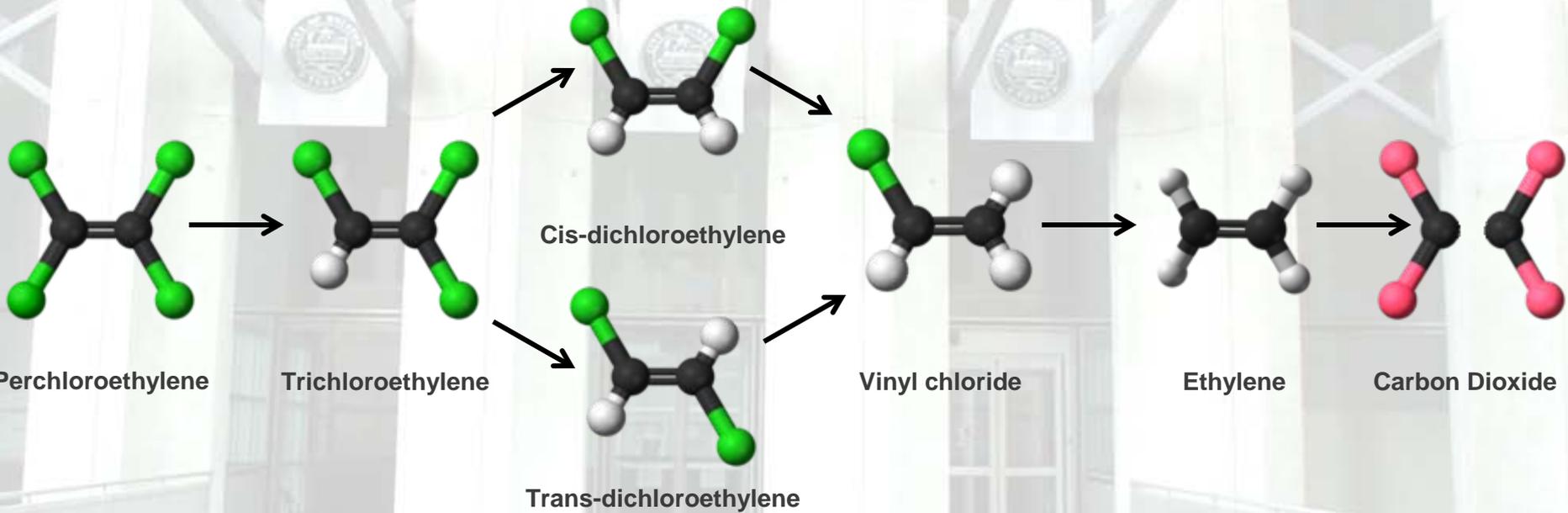
Example PCL for PCE
Ingestion = 0.005 mg/L
Inhalation = 500 mg/L



Contaminant Flow



Natural Attenuation



Applicant's Responsibility

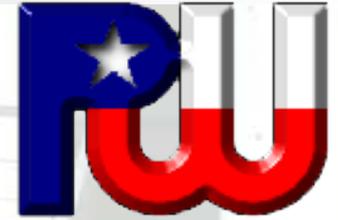


- An MSD does **NOT** excuse the applicant from reducing other risks to the public

- Owner must address other exposure pathways
 - Non-Ingestion
 - Soil
 - Vapors
 - Runoff and other flows



City's Requirements of the Applicant:



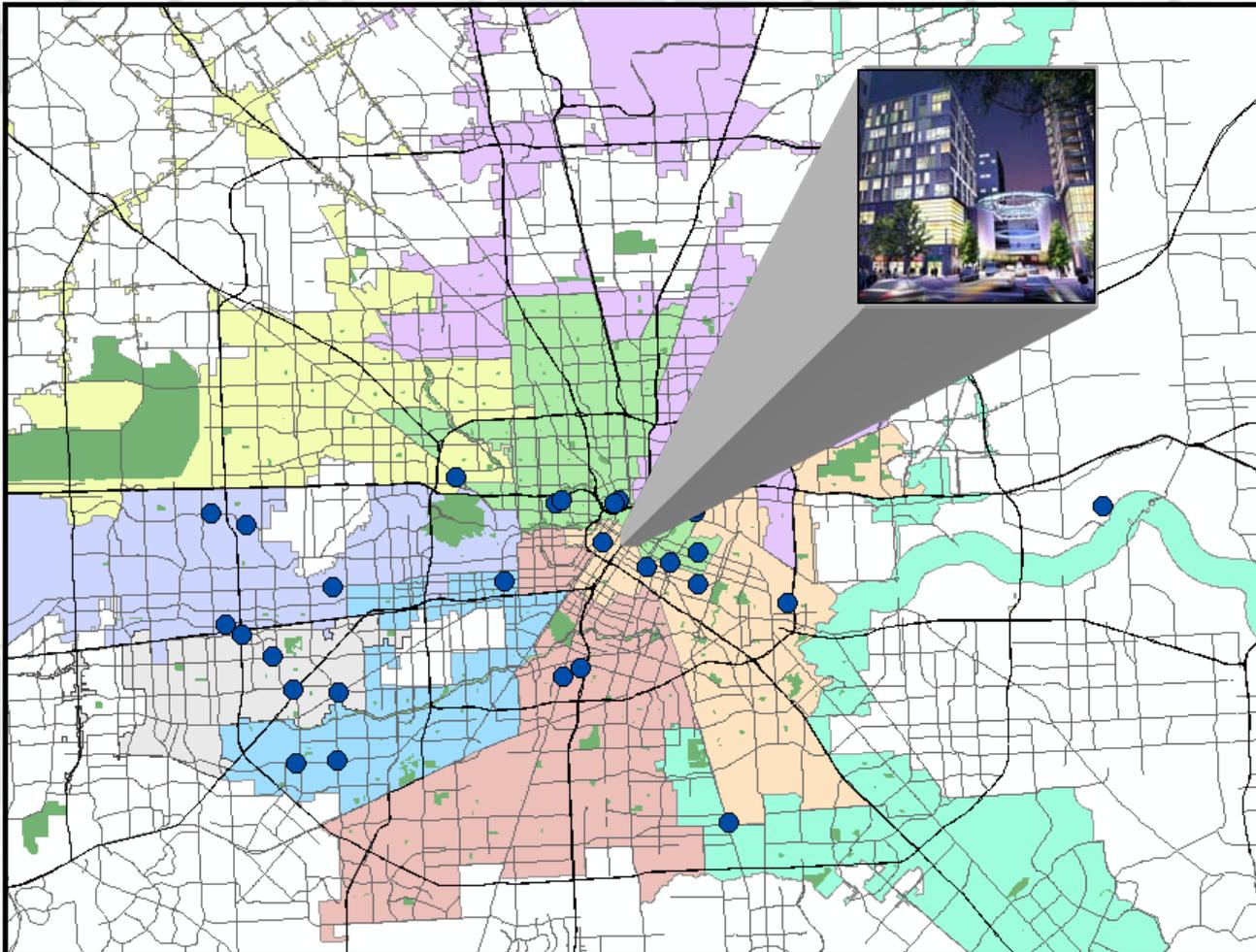
- Enrollment in a State or Federal clean-up program
- Thorough investigation
 - Data must show that the groundwater plume is stable or decreasing.
- A third party Professional Engineer (P.E.) or Professional Geologist (P.G.) must be willing to certify that the plume is stable or decreasing.

Why Support An MSD?



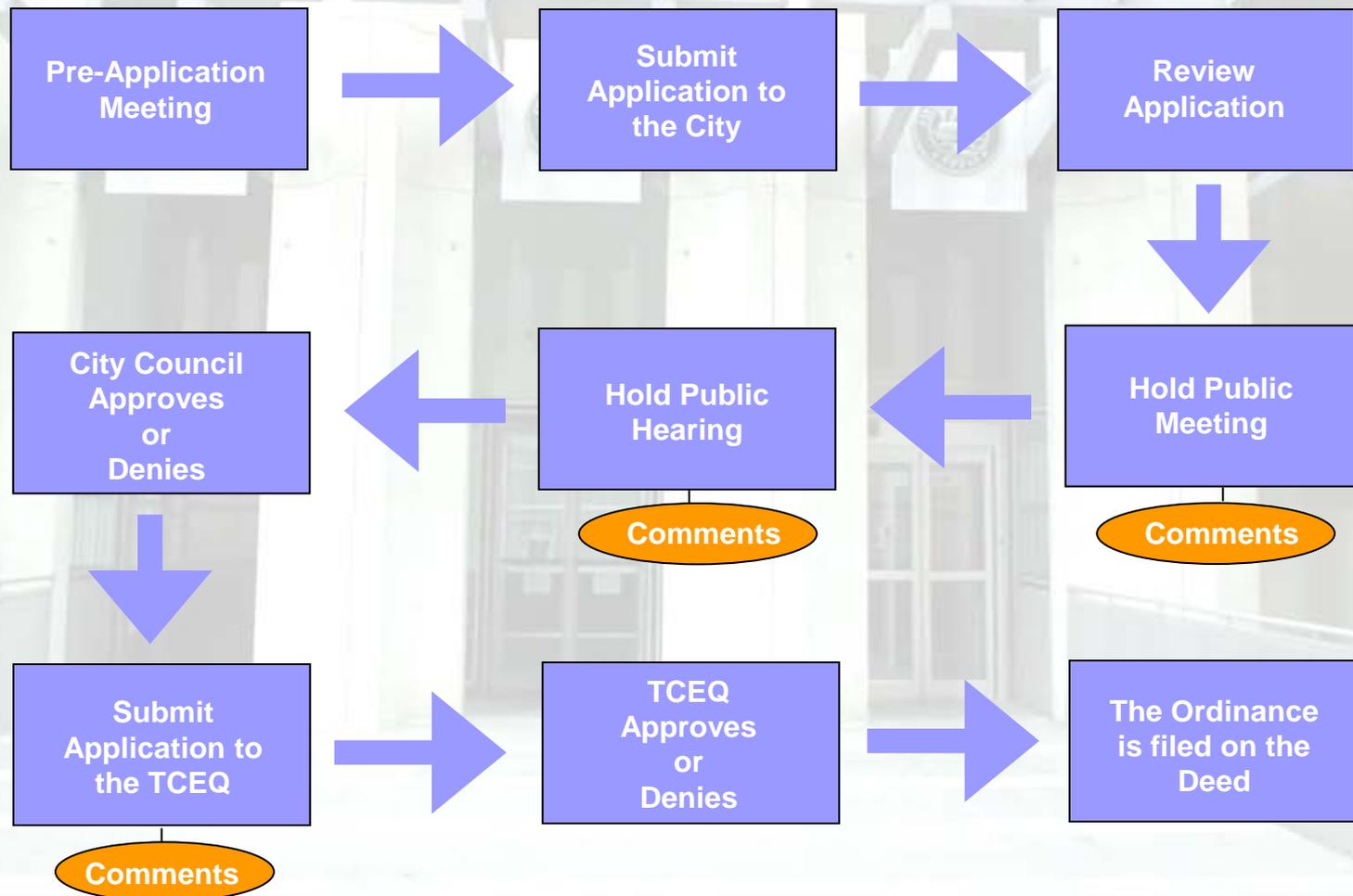
- Protects the public from consumption of shallow contaminated groundwater
- Encourages clean-up of contaminated sites through participation in a State or Federal program
- Promotes redevelopment of under-utilized properties

MSD Sites in Houston



Municipal Setting Designations (MSDs)

Steps in the Process



MSD Application



- Flores Library
reference desk
- 110 North Milby
Houston, TX 77003

The MSD Website



The screenshot shows the City of Houston website interface. At the top, there is a navigation bar with links for Home, Government, Residents, Business, Departments, Visitors, and En Español. Below this is a search bar and a main content area titled 'Public Works and Engineering'. On the left, there is a 'Departmental Links' sidebar with categories like Engineering and Construction, Planning and Development, Public Utilities, Resource Management, Right of Way and Fleet Maintenance, Traffic and Transportation, and Directors Office. The main content area is titled 'Municipal Settings Designation' and features a 'History' section, 'General Information' with a bulleted list of site requirements, and 'Forms and Information' with links to application forms and FAQs. An arrow points from the 'MSD in Review' link in the sidebar to a larger callout box on the right.

www.houstonmsd.org

For more information concerning the application or process of an MSD in Houston, call:

Carol Ellinger Haddock
Senior Assistant Director, PE
PW&E/Planning & Development Services Division
PH 713.837.0928
FX 713.837.0658

- o [MSD Calendar](#)
- o [MSD Completed](#)
- o [MSD in Review](#)

Municipal Setting Designations (MSDs)

The MSD Website



MSD in Review

Carol Ellinger Haddock , Assistant Director, P.E.

MSD in Review

Differential Development – 1994, Ltd. #2008-012-DD (Lantern Lane Shopping Center Site)	
Executive Summary	
Full Application	
Hoerbiger Corp. of America Inc. and Morgan Advanced Materials and Tech. Inc. # 2009-016-Milby (Milby Street Site)	
Executive Summary	
Full Application	
Estate of Isadore and Esther Robinson # 2009-020-GMI (Former Gulf Metals Industries Landfill Site)	
Executive Summary	
Full Application	
Public Meeting Notice	
Public Meeting Presentation	
Silver Bishop Holdings, LP #2010-025-NOR (Navigation-Norwood Site)	
Executive Summary	
Full Application	
Public Meeting Notice	
Public Meeting Presentation	

MSD Calendar

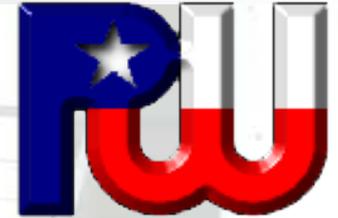
Carol Ellinger Haddock , Assistant Director, P.E.

Municipal Settings Designations Calendar

Information on the latest meetings, conferences, and events.

Date	Time	Event
07/14/2010	9:00 AM	Public Hearing: FPA/PinPoint Mykawa, LLC. (MSD # 2009-020-GMI) City Hall Council Chambers, 2nd Floor, 901 Bagby, Houston, TX 77002
07/20/2010	6:00 PM	Public Meeting: Schlumberger Technology Corporation (MSD #2010-027-STC) Judson Robinson Jr. Community Center, 2020 Hermann Dr., Houston, TX 77004
08/03/2010	6:00 PM	Public Meeting: Differential Development - 1994, Ltd. (MSD #2008-012-DD) Tracey Gee Community Center, 3599 Westchase Dr., Houston, TX 77042
08/04/2010	9:00 AM	Public Hearing: BAE Systems Resolutions Corporation, Inc. (MSD #2010-026-FSS) City Hall Council Chambers, 2nd Floor, 901 Bagby, Houston, TX 77002
08/24/2010	6:00 PM	Public Meeting: Board of Regents of the University of Texas System (MSD #2010-028-ACD) Judson Robinson Jr. Community Center, 2020 Hermann Dr., Houston, TX 77004

Public Hearing



- Date: October 21, 2010
- Time: 10:00 AM
- Place: City Council Chamber (Committee Meeting)
Development and Regulatory Affairs
- Address: 901 Bagby, Second Floor
Houston, Texas 77002

Any person wishing to speak on this issue must arrive at least 15 min early and sign the speakers list located on the front desk.

Contact Information



Richard Chapin
Senior Project Manager

&

Jedediah Greenfield
Environmental Analyst

Public Works & Engineering
City of Houston,
611 Walker, 19th Floor
Houston, Texas 77002



msd@houstontx.gov
(832) 395-2699

Municipal Setting Designations (MSDs)

Contact Information



Scott Settemeyer

Remediation Division

Texas Commission on Environmental Quality

P.O. Box 13087, MC-225

Austin, Texas 78711

ssetteme@tceq.state.tx.us





TETRA TECH

**MUNICIPAL SETTING DESIGNATION
PUBLIC MEETING**

**Morgan Advanced Materials and Technology, Inc. (MAMAT) and
Hoerbiger Corporation of America, Inc.**

1212 Milby Street
Houston, Texas 77023

Houston Warehouse Associates (HBS Warehouse Associates)

3503 through 3719 Polk Street
Houston, Texas 77023

Presented by: Alberto Tohme

Tetra Tech EM Inc.

2901 Wilcrest Drive Ste. 400

Houston, Texas 77042

Telephone (832) 251-5175

Facsimile (832) 251-5170

MSD Applicants

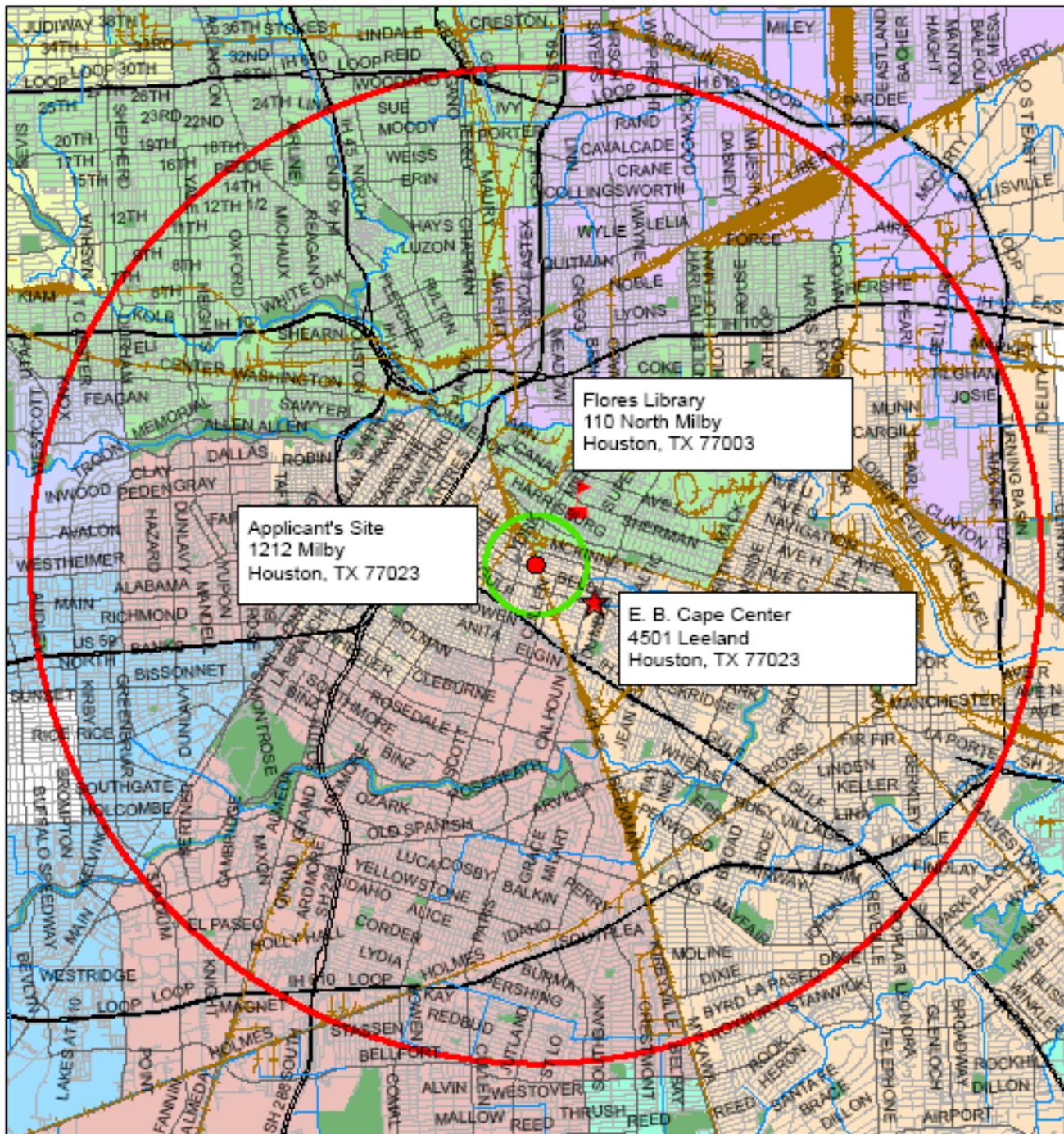
- Morgan Advanced Materials and Technology (MAMAT): previous owner of facility at 1212 Milby St.
- Hoerbiger Corporation of America, Inc.: current owner of the facility at 1212 Milby St.
- Houston Warehouse Associates: current owner of the property at 3503 to 3719 Polk St.

Municipal Settings Designation Application

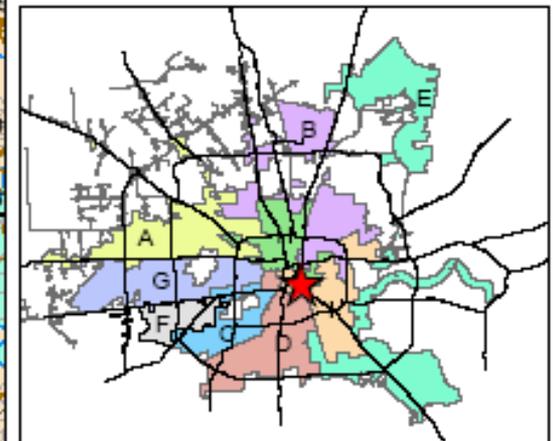
2009-016-Milby Vicinity Map

Legend

-  Library
-  MSD Application
-  Community Center
-  5 Mile Notification Area
-  1/2 Mile Notification Area



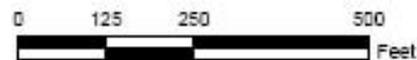
0 0.3 0.6 1.2 Miles



This map represents the best information available to the City. The City does not warrant its accuracy or completeness. Field verification should be performed as necessary.



 APPROXIMATE PROPERTY BOUNDARY



MSD APPLICATION
1212 MILBY STREET
HOUSTON, HARRIS COUNTY, TX

SITE VICINITY MAP



Overview of the Designated Properties

Hoerbiger Corporation of America (site formerly owned by MAMAT)

- 3.157 acres; compressor part manufacturing since 1981
- TCEQ Voluntary Cleanup Program No. 1648 (2003 – present)
- $\frac{3}{4}$ Mile Southeast of I-59 and I-45 Interchange; North 250 ft on Milby from Polk; on West side of street, south of Railroad

Overview of the Designated Properties

Houston Warehouse Associates (HBS Warehouse)

- 2.6 acres; office spaces and storage of general merchandise since 1967
- TCEQ Innocent Owner/Operator Certificate (Program ID # 630) in 2007
- $\frac{3}{4}$ Mile Southeast of I-59 and I-45 Interchange; located directly south of the Hoerbiger facility

Site Conditions

- Shallow groundwater contains very low levels of historically used chlorinated solvents.
- The shallow groundwater is not used as a water source in the area and has no public health impact.
- The shallow groundwater is not a suitable drinking water source and is separated from the drinking water deep aquifers by several hundred feet.

Why We are Seeking an MSD

- Restrict the use of the shallow groundwater under the designated properties to protect public health
- This property has and will always be used for industrial and commercial purposes
- Obtain a Certificate of Completion from the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP)

Investigation Activities

- Oct 1997 – Phase I Environmental Site Assessment (ESA)
- Nov 2002 – Addendum Phase I ESA
- May 2003 – Phase I ESA & Preliminary Compliance Assessment
- Jun 2003 – Phase II ESA, 7 monitoring wells installed and 3 soil borings analyzed
- Sep 2003 – Entered into TCEQ Voluntary Cleanup Program

Investigation Activities

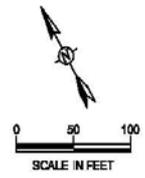
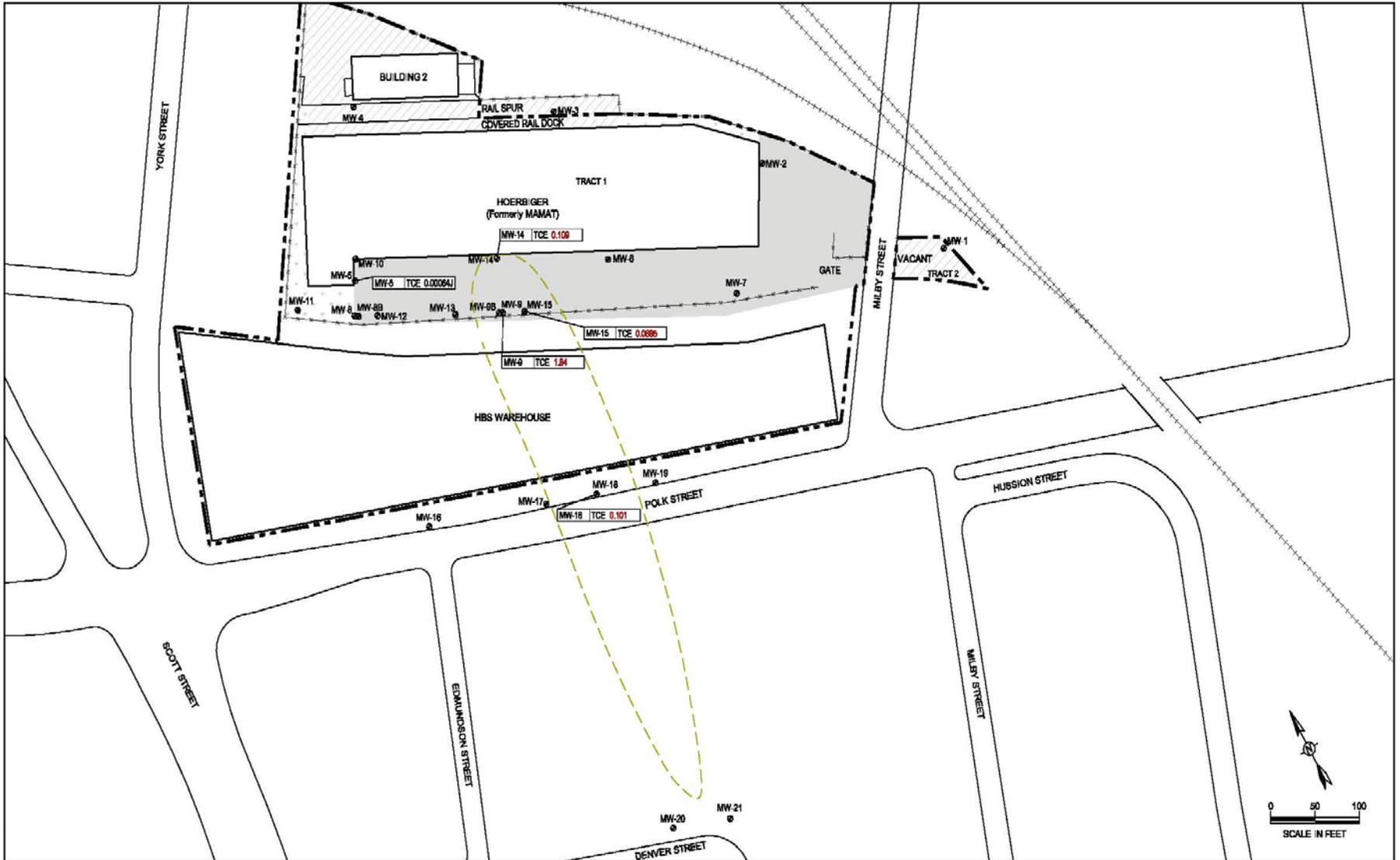
- Jul 2004 – Affected Property Assessment Report (APAR) submitted to the TCEQ
- Apr 2007 – APAR addendum submitted to the TCEQ
- Dec 2007 – initiated the MSD application process
- SUMMARY:
 - Installed and analyzed 23 permanent wells on and off site in two groundwater bearing zones
 - 2003 to present – performed quarterly groundwater monitoring and semi-annual reporting per TCEQ requirements

Soils

- Historic release locations are thought to be inside or adjacent to main manufacturing building inside the facility.
- All suspected sources of chlorinated solvents have been removed
- No impacts to public or worker health
- No impacts to surface soil or subsurface soil were found to exceed regulatory standards

Groundwater

- Shallow groundwater contains low levels of chlorinated solvents
- No impact to public or worker health
- No Public Water Supply wells within ½ mile radius
- No surface water within ½ mile
- Shallow groundwater depth varies 10-15 ft bgs
- MSD would be placed in City's Utility Database



LEGEND:

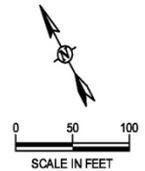
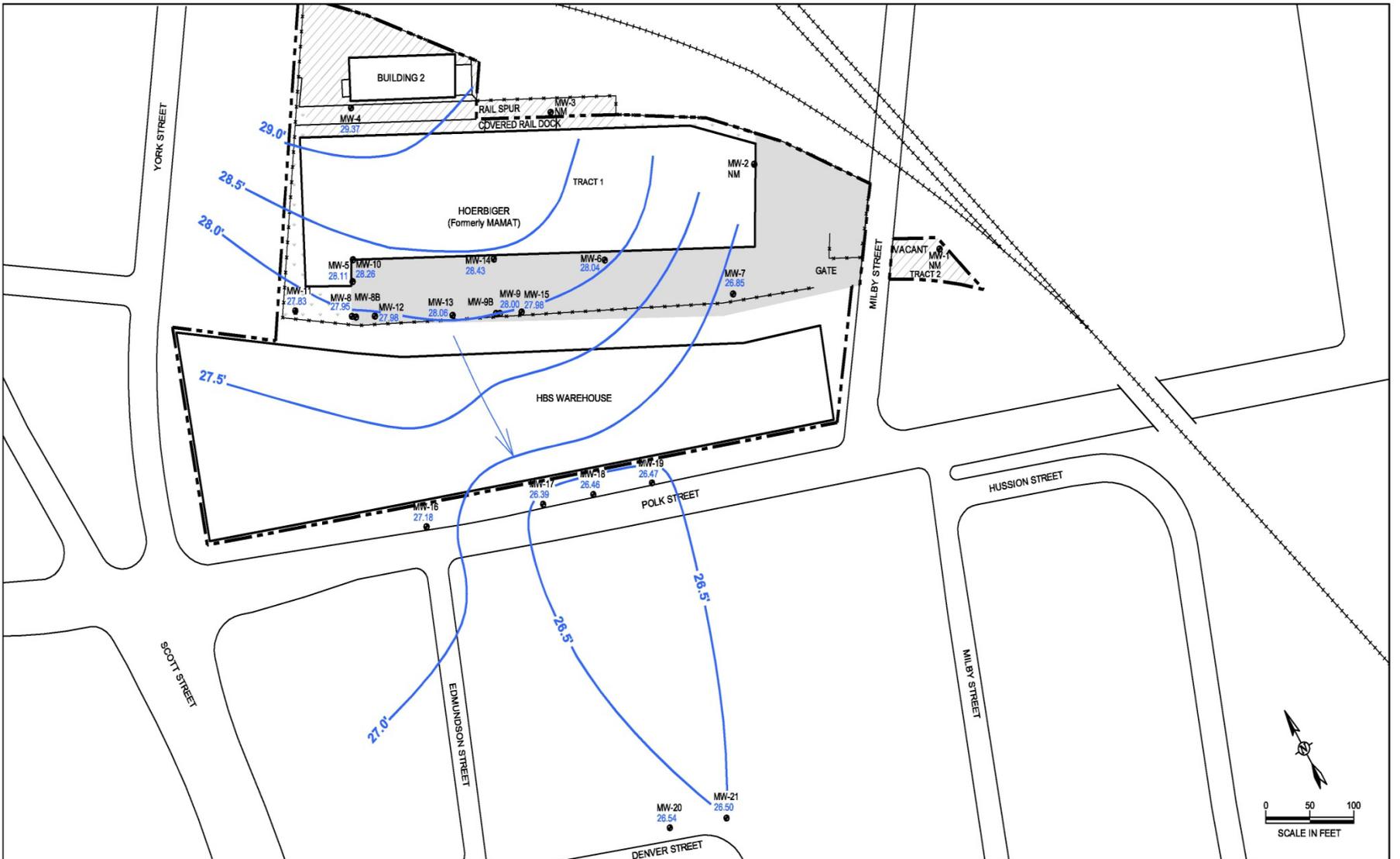
	APPROXIMATE SITE LIMITS		TRICHLOROETHYLENE (TCE) PCL ZONE
	CHAIN-LINK FENCE		ESTIMATED VALUE
	RAILROAD		MILLIGRAMS PER LITER
	MONITOR WELL LOCATION		NON-DETECT
	CONCRETE PARKING LOT		PROTECTIVE CONCENTRATION LEVEL EXCEEDENCE
	CRUSHED AGGREGATE SURFACE COVER		
	GRASS/VEGETATION COVER		

NOTES:
 1. ALL RESULTS IN mg/L
 2. ALL OTHER RESULTS WERE ND AT REPORTING LIMITS
 3. RESULTS REPORTED IN RED ARE EQUAL TO OR GREATER THAN THE SITE SPECIFIC CRITICAL PCL (0.005 mg/L)

MSD APPLICATION
 1212 MILBY STREET
 HOUSTON, HARRIS COUNTY, TX

TRICHLOROETHYLENE (TCE) PCL MAP





LEGEND:		
	APPROXIMATE SITE LIMITS	39.37
	CHAIN-LINK FENCE	NM
	RAILROAD	
	MONITOR WELL LOCATION	
	CONCRETE PARKING LOT	WATER LEVEL AT MEAN SEA LEVEL (FEET)
	CRUSHED AGGREGATE SURFACE COVER	WATER LEVEL NOT MEASURED
	GRASS/VEGETATION COVER	GROUNDWATER POTENTIOMETRIC CONTOUR (1-FOOT)(DASHED WHERE INFERRED)
		GROUNDWATER FLOW DIRECTION

NOTE:
 MW-8B AND MW-9B WERE SCREENED IN THE SECOND WATER BEARING ZONE AND WERE NOT USED TO CREATE THIS FIGURE.

MSD APPLICATION
 1212 MILBY STREET
 HOUSTON, HARRIS COUNTY, TX
GROUNDWATER ELEVATION MAP
 JUNE 2010

Remediation Efforts

- Groundwater
 - Full extent of impacted groundwater has been investigated
 - 23 permanent monitoring wells installed
 - Monitoring wells have been sampled every quarter since 2003
 - 7 years of data indicates concentrations in groundwater are stable
 - Evidence of natural attenuation of chlorinated solvents identified at site

Hoerbiger's Environmental Standards

- Continued Best Management Practices and implementation of internal environmental standards
- Chlorinated solvents no longer in use at the facility – there will be no additional sources of contamination of groundwater

Summary

- The designated property has been investigated extensively according to the TCEQ requirements
- There is no impact to public or worker health
- The groundwater plume is stable in areal extent and concentration
- Natural attenuation of chemicals appears active
- There is no real beneficial use of shallow groundwater
- The MSD is put in place to protect public health and the environment

Next Steps

