

Municipal Setting Designations



MSDs: Another tool for Houston

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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
5610 Clay
- Public comment and questions

Why Are We Here



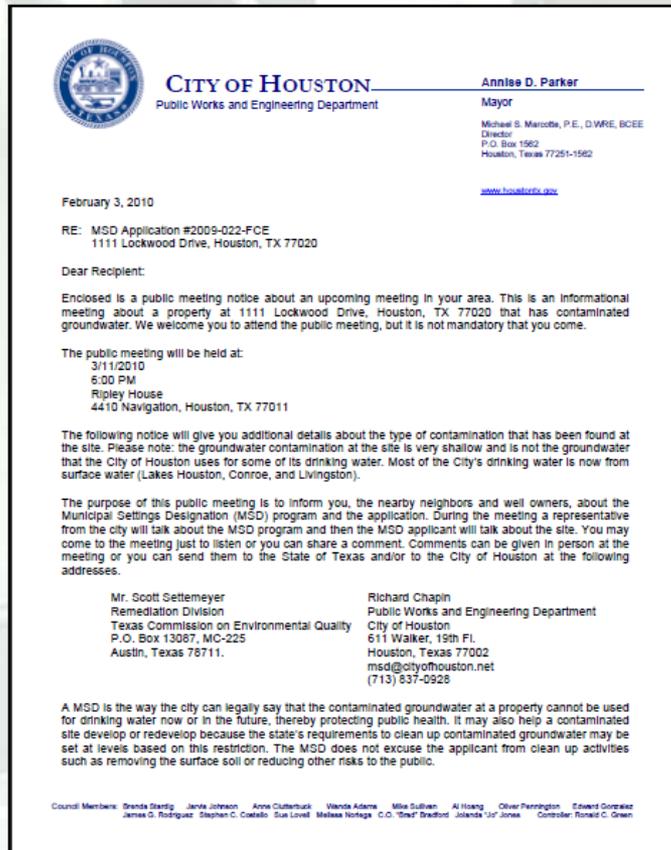
- Inform you about an MSD application amendment
 - 5436, LLC
 - MSD #2007-003-5610C(amendment b)
- Explain what an MSD is and what it does for the applicant, the local community, and the City
- Receive public comments

Why Are We Here



- MSD Application Amendment
 - Application Received 7/15/2008
 - Public Meeting 11/24/2008
 - Public Hearing 1/14/2009
 - Ordinance Passed 6/9/2009
- Original Ordinance for the 5436 Clay Street portion was for lower groundwater located at 30 to 60-feet below ground surface
- Amendment now for upper portion

MSD Notice Letters



- Public Notices:
 - Property owners
First Class Mail
1/2-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)

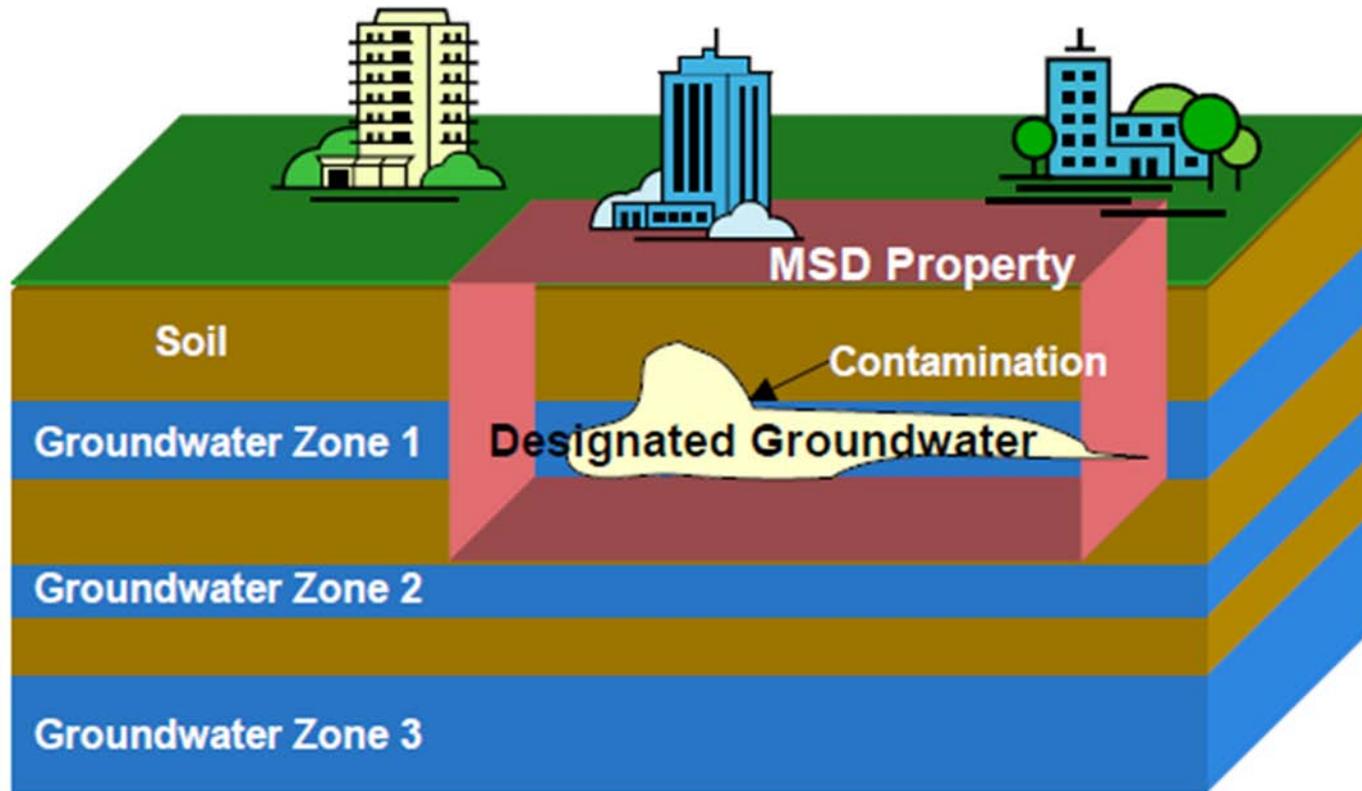
City Water Supply



- Houston's drinking water comes from either deep aquifers (20%) or surface water (80%)
 - 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



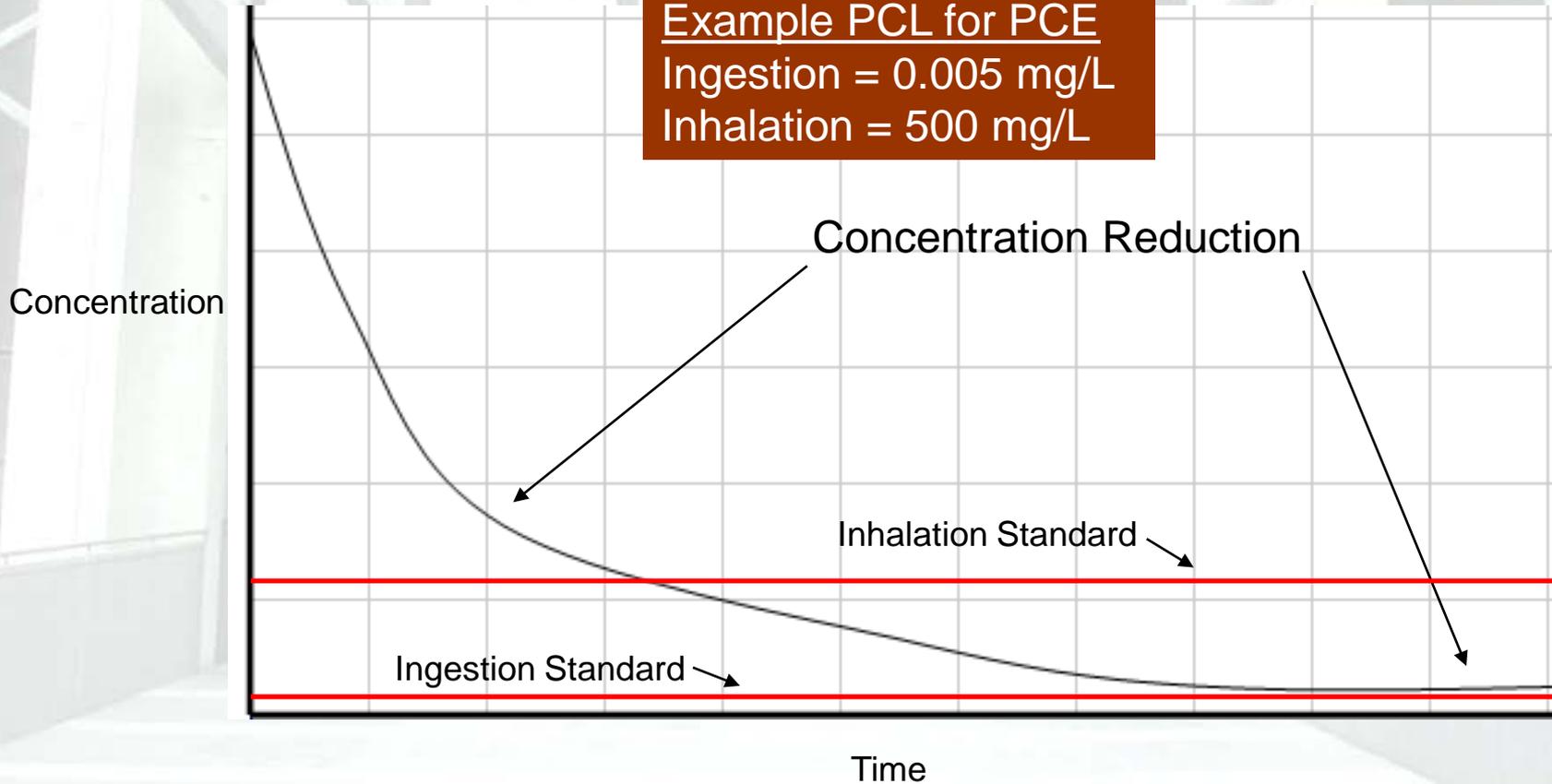
- Groundwater must be cleaned to drinking water standards even if:
 - There is no need or desire to use it, or
 - Water bearing zone is too silty, too salty, or low
 - producing
- Groundwater remediation to drinking water standards is inefficient, costly, and can take decades



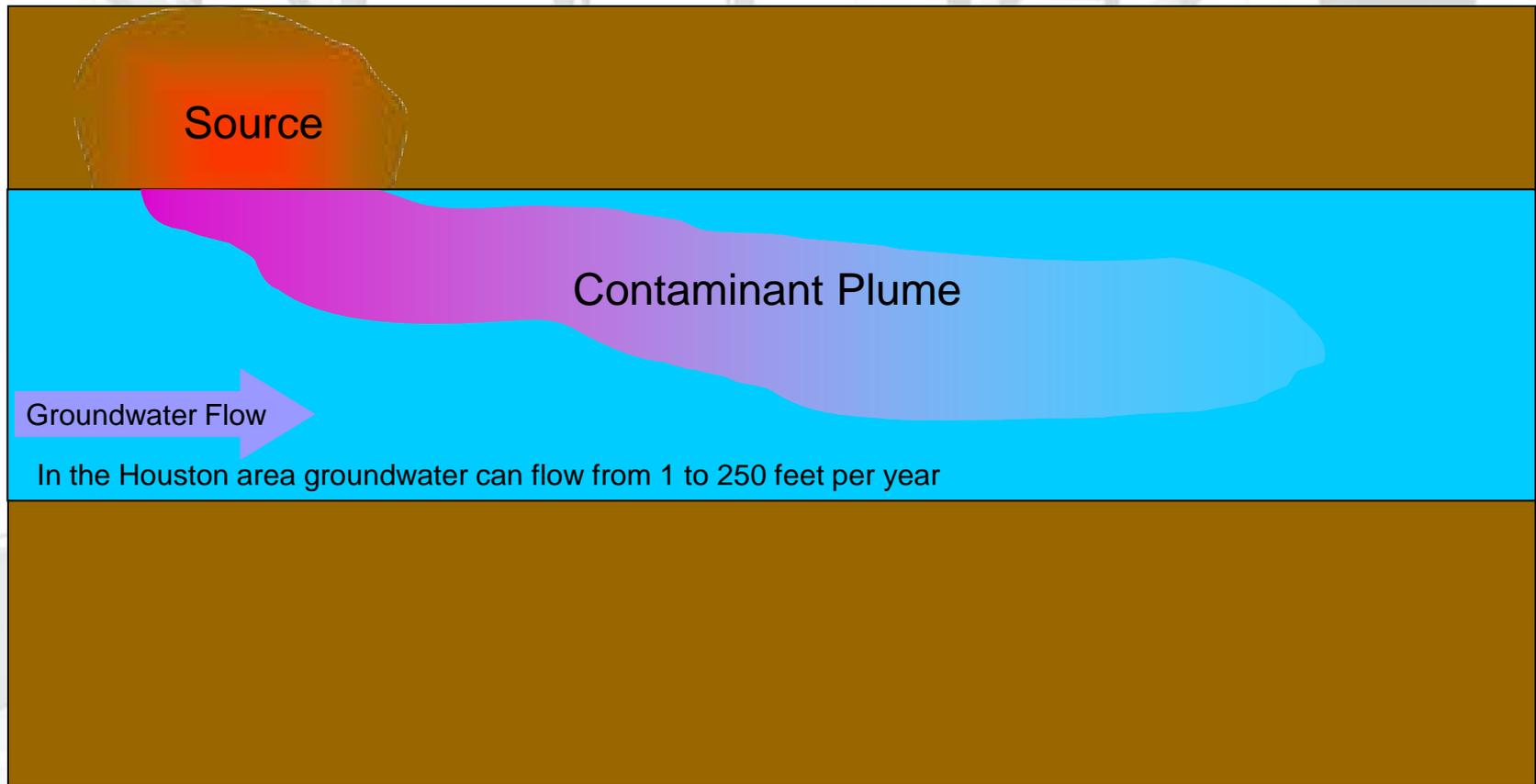
Groundwater Remediation



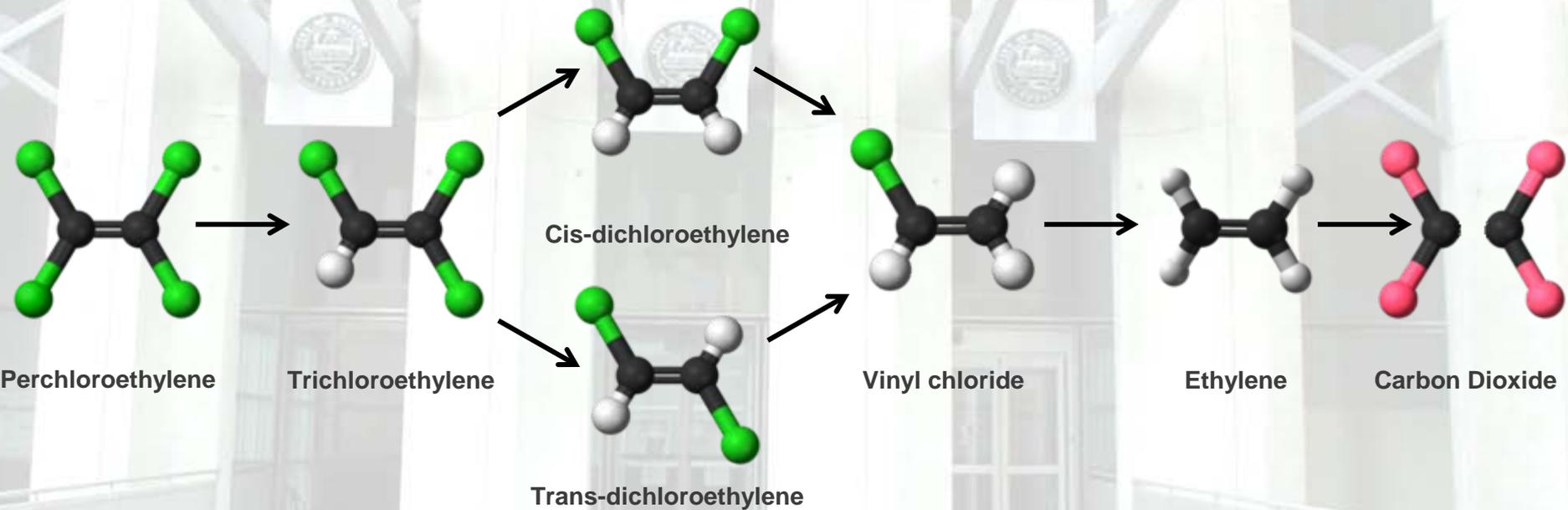
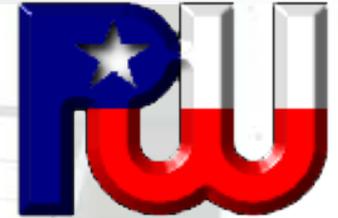
Example PCL for PCE
Ingestion = 0.005 mg/L
Inhalation = 500 mg/L



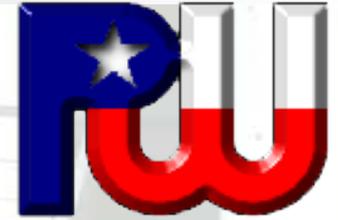
Contaminant Flow



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:



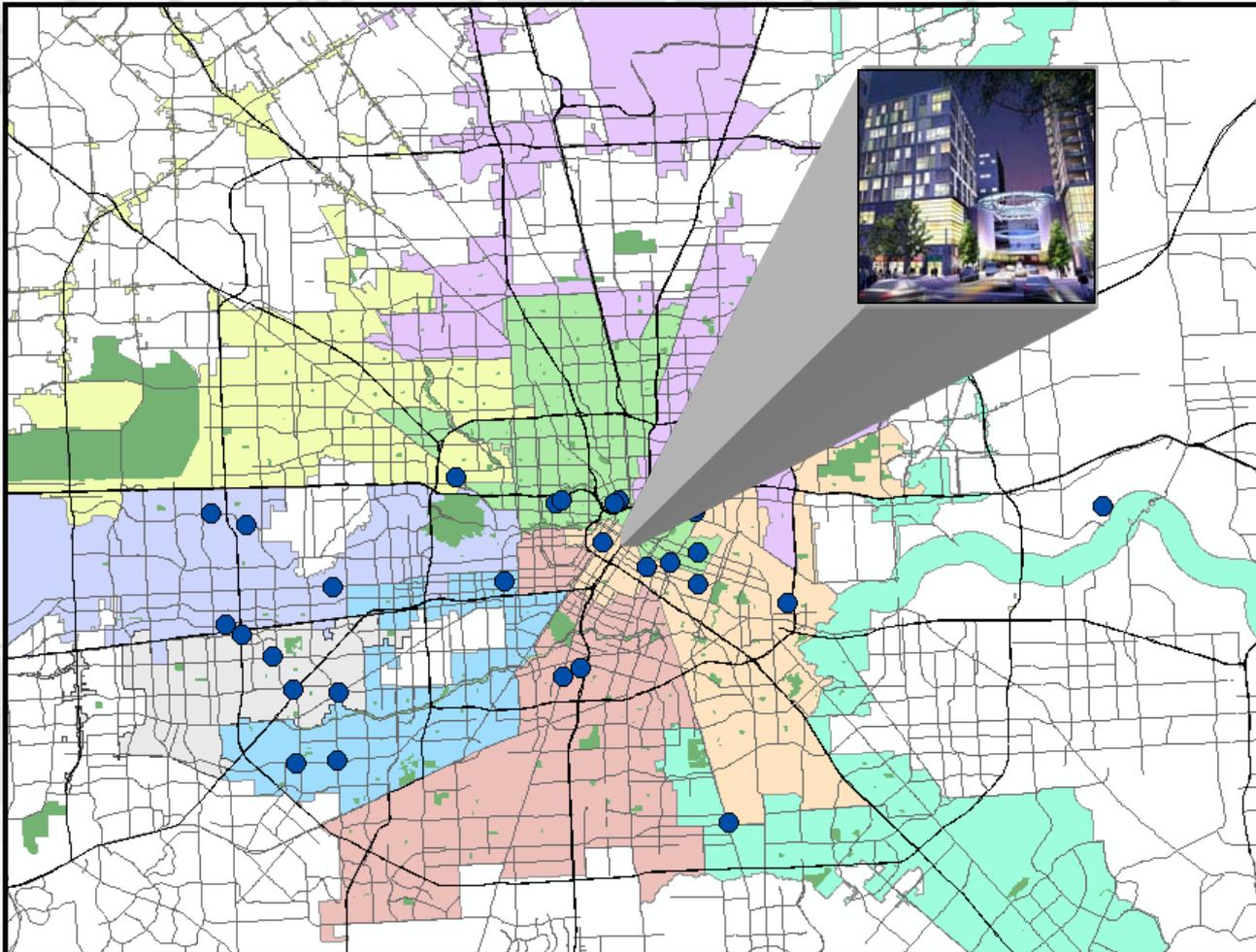
- Enrollment in a State or Federal clean-up program
- Thorough investigation
 - Data must show that the groundwater plume is stable or decreasing.
- A third party Professional Engineer (P.E.) or Professional Geologist (P.G.) must be willing to certify that the plume is stable or decreasing.

Why Support An MSD?



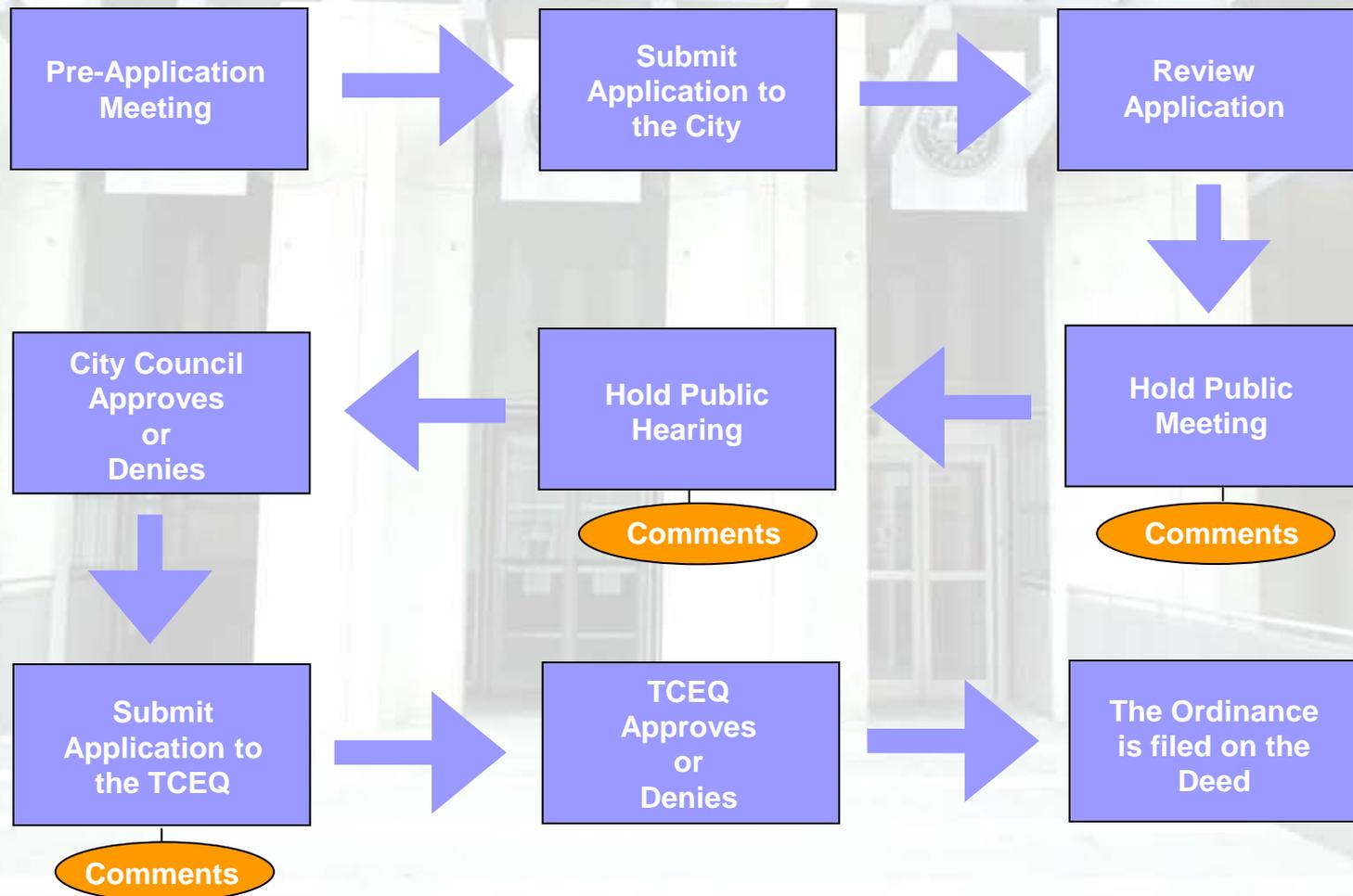
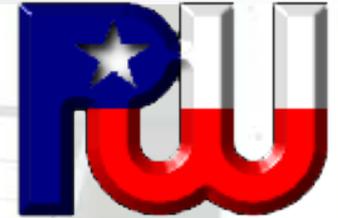
- Protects the public from consumption of shallow contaminated groundwater
- Encourages clean-up of contaminated sites through participation in a State or Federal program
- Promotes redevelopment of under-utilized properties

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



City of Houston
Home | What's New | Government | Residents | Business | Departments | Visitors | En Español

Home > Planning > Municipal Settings Designation

Public Works and Engineering

Departmental Links

- Public Home
- Engineering and Construction
- Planning and Development
- Public Utilities
- Resource Management
- Right of Way and Fleet Maintenance
- Traffic and Transportation
- Director's Office
- Special Programs
 - Green Building
 - Houston Bikeways
 - Corral the Grass
 - Water Education

Municipal Settings Designation
Carol Ellinger Haddock, Assistant Director, PE

History:
In 2003, the Texas Legislature authorized the creation of MSDs, which would designate an area in which the use of contaminated groundwater is prohibited from use as potable water. The law is administered by TCEQ. The intent of the legislation is to encourage redevelopment of vacant or abandoned properties while protecting the public health.

On August 22, 2007, City Council approved an Ordinance amending Chapter 47 of the Code of Ordinances by adding Article 033 relating to groundwater, which will provide a process for applying for and supporting a Municipal Setting Designation (MSD) application to the State. The City's program becomes effective November 1, 2007.

General Information:

- The sites that could apply for a MSD are already contaminated.
- The process requires that an applicant must participate in one of the cleanup programs administered by Texas Commission on Environmental Quality (TCEQ) or EPA.
- A MSD only alleviates the requirement that property owners address the risk of consuming groundwater. Assessment would still be required for other means of exposure such as:
 - Inhalation of vapors
 - Contact with contamination during construction projects
 - Ecological impacts, such as, seepage into nearby waterways
- Establishing a MSD does not remove any liability from the property owner, nor does it shift any liability to the City.
- MSDs will not be approved within a spill read protection area and no MSD may be approved unless the site is already served by City water or is capable of being served by City water, at the applicant's expense.
- MSDs prohibit the use of groundwater as potable water. In the City's ordinance, potable water is defined as water that is used for ingestion, production of food or drink products intended for human consumption, drinking, showering, bathing or cooking purposes.

Fees and Information

- Application Form
- Certified Mail Spreadsheet Template
- Regular Mail Spreadsheet Template
- City Ordinance

FAQ:

- Frequently Asked Questions for Application Process
- Frequently Asked Questions for MSD's (English)
- Frequently Asked Questions for MSD's (Spanish)

Other Websites of Interest:

- TCEQ - Application Form
- TCEQ - A Guide for Cities

You can request an electronic copy of the full application by e-mail to: msd@houston.gov

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

MSD Calendar

- MSD Calendar
- MSD Completed
- MSD in Review

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www.houstonmsd.org

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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

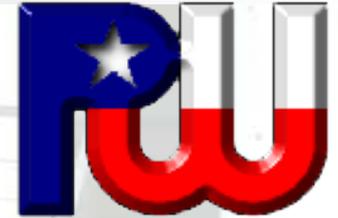
Carol Ellinger Haddock , Assistant Director. P.E.

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: March 17, 2011
- 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



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&

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(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

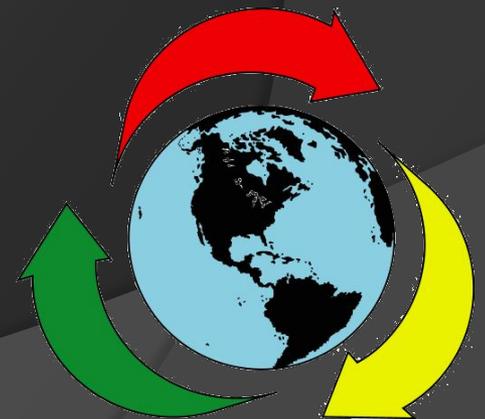
ssetteme@tceq.state.tx.us



POLK STREET MSD
5440 POLK ST. & 5436 CLAY ST.
MSD #2007-003-5610C(AMENDMENT B),5436, LLC

Presented By:

Michael F. Marcon, P.G.
InControl Technologies, Inc.
3845 FM 1960 West; Suite 195
Houston, Texas 77068
(281) 580-8892



Current Development

- Currently developed as light industrial/ commercial use.
- The property is currently vacant. Reportedly, the property was vacated in 2004.



Environmental Setting

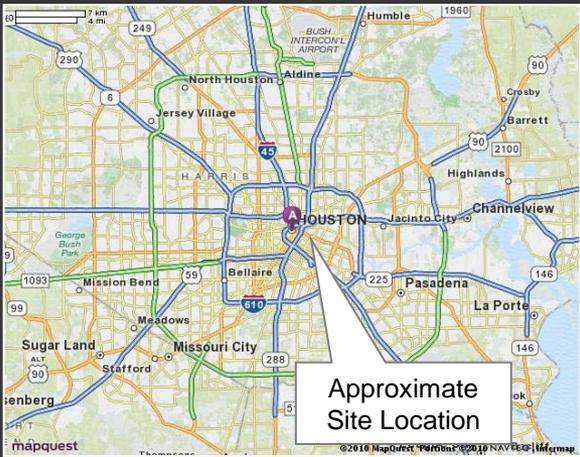
- During a preliminary environmental assessment of the property in September 2005 it was discovered that historic operations had impacted soil and shallow groundwater.
- The property was enrolled in the Texas Voluntary Cleanup Program in March 2008 and assigned VCP No. 2153.
- Investigations completed between 2006 and the present defined the horizontal and vertical extents of the contaminants in soil and groundwater.



Site History

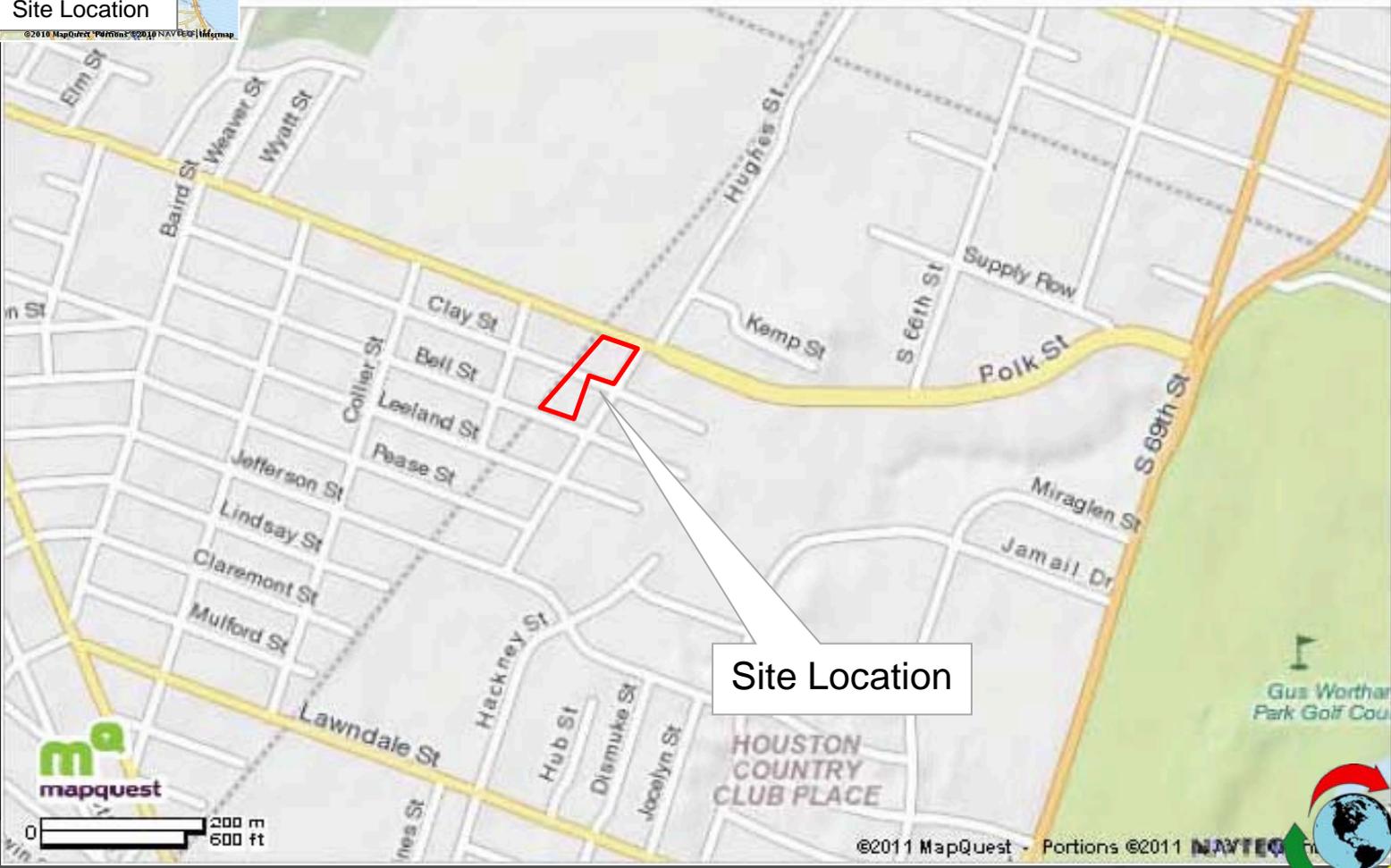
- Area was developed with industrial properties since as early as 1929.
- Facility was operated from early 1950s through 2004.
- Operations included repair and reconditioning of industrial valves.
- Owned by Westinghouse from 1981 to 1996.
- Elliot Valve, Ltd. owned the property from 1996 to 2008.
- 5436, LLC purchased property in 2008.



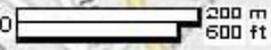


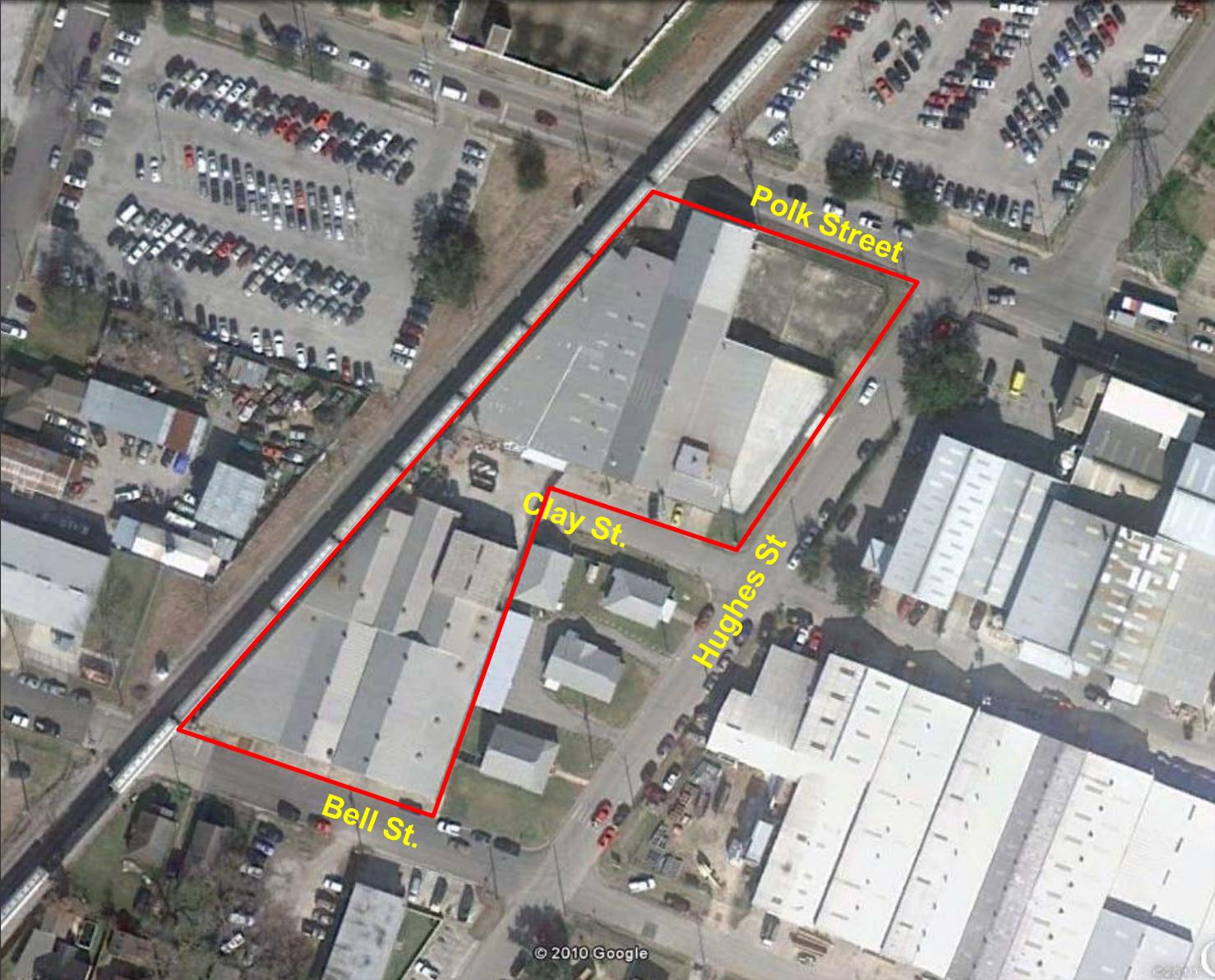
Approximate Site Location

Proposed MSD Boundary



Site Location





Proposed MSD Boundary



Polk Street MSD

- Trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride (VC) are the constituents identified in the shallow groundwater plume.
- The chemicals of concern are chlorinated solvents which were likely used prior to the operations by Westinghouse.
- Shallow groundwater bearing zone is approximately 15- to 20-feet below surface.
- This groundwater bearing unit is a low quality-low yield formation which does not produce more than 150 gpd.
- Groundwater flow is to the east-northeast.



Investigation History

- A series of investigations have been conducted at the property to assess impacts from historic operations.
- Soil, and groundwater samples have been collected as part of these investigations.
- TCEQ was first notified of VOCs on subject property in 2005.
- An upper and lower saturated zone was identified in initial investigations.
- Only the Upper Saturated Zone is impacted by chlorinated solvents.
- Between 2006 and present 13 permanent groundwater monitoring wells were installed to delineate the chemicals of concern in upper groundwater bearing unit.





- Sample Location
- Groundwater Monitoring Well



Investigation Results

- Area of impacted groundwater has been fully delineated.
- Groundwater yield study concluded the groundwater yield was less than 150 gpd.
- Shallow groundwater bearing unit can be considered a Class 3 Groundwater Resource - Not suitable for potable use.
- Groundwater samples collected from monitoring wells report TCE, cis-1,2-DCE, and VC at concentrations above the Tier 1 Residential Class 3 Protective Concentration Limits on the subject property.



TCE in Groundwater



● Groundwater Monitoring Well

● PCLE Zone



Cis-1,2-DCE in Groundwater



● Groundwater Monitoring Well

● PCLE Zone



VC in Groundwater



● Groundwater Monitoring Well

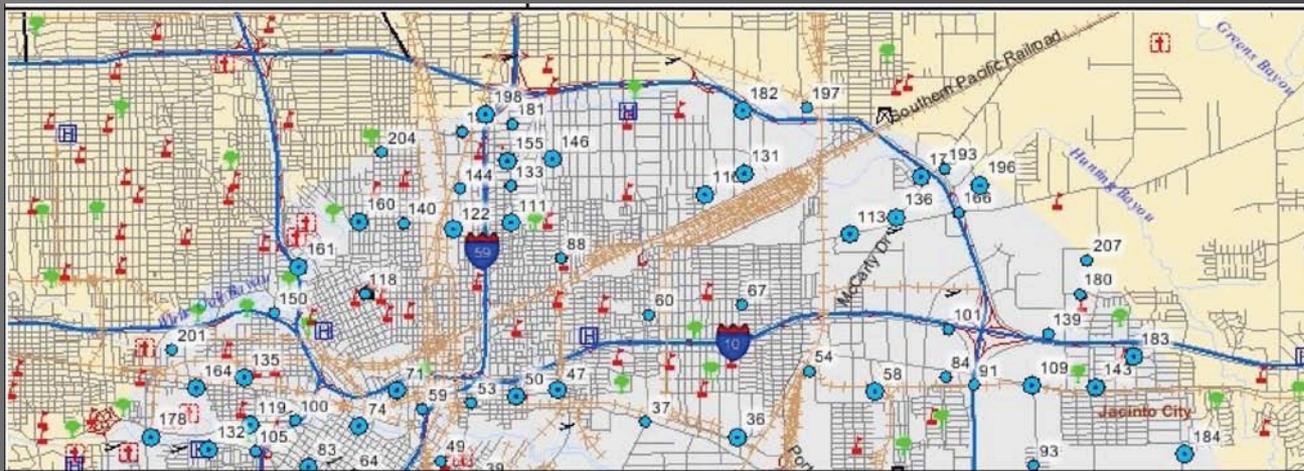
● PCLE Zone



Protection from Affected Media

- Groundwater is not readily accessible.
- Affected groundwater is not a source of drinking water.
- No down gradient users of groundwater.
- Located in an industrial area with limited residential development. Will remain industrial for the foreseeable future.
- MSD will be placed in the City's Utility database to notify workers when working on property to use proper protective equipment.





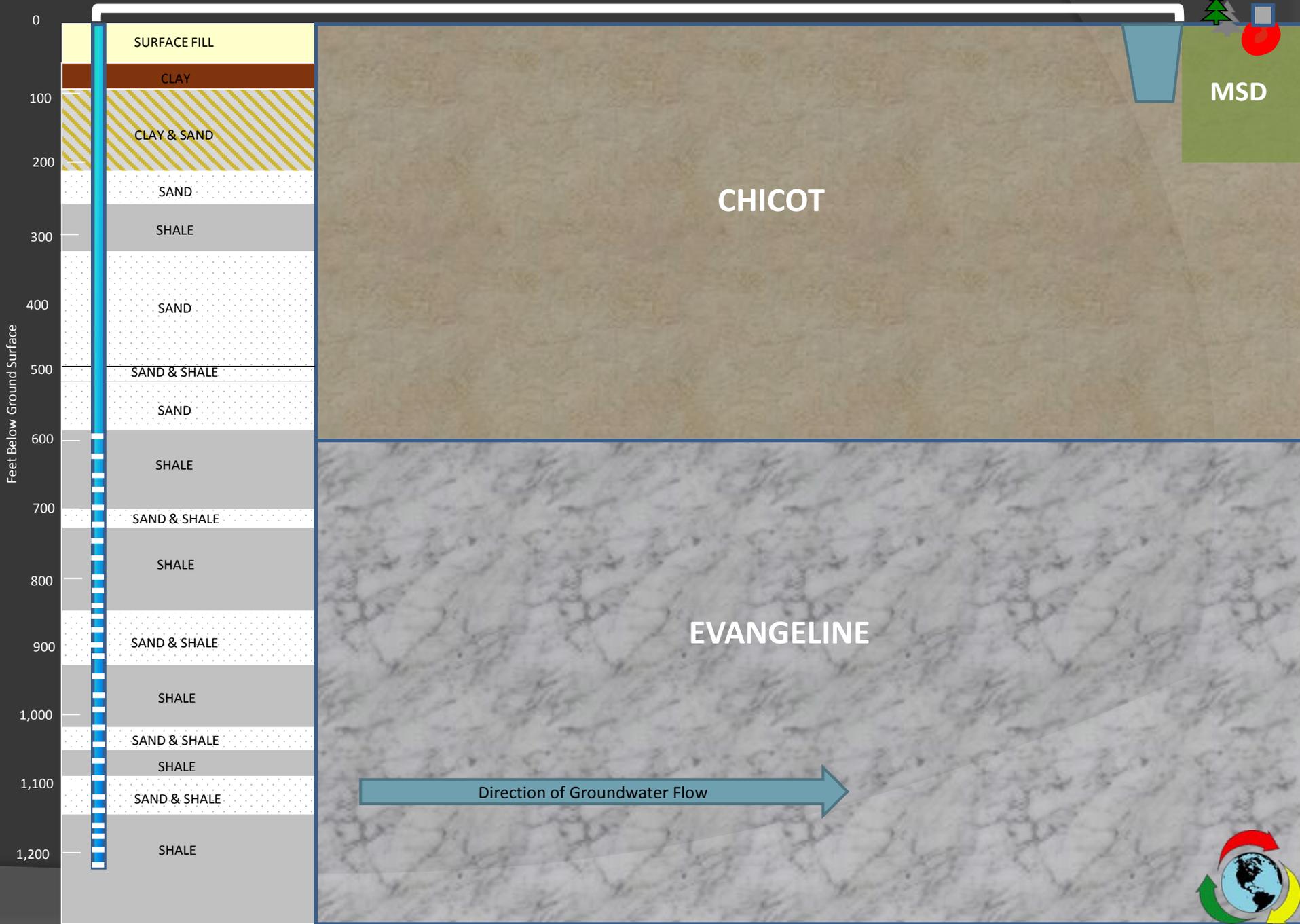
The nearest domestic water well is located almost 1.4-miles northeast (cross gradient) and completed at depth greater than 250-ft below ground surface.



The nearest public water supply well is located greater than 1-mile southwest (cross gradient).



>5,000 feet Separation



Summary

- The constituents have been vertically and horizontally defined and are not spreading.
- The closest active public water supply well is greater than 1-mile away from the subject property in a cross gradient direction.
- The closest domestic well is located approximately 1.4-miles away from the subject property in a cross gradient direction.
- The nearest water well in a down gradient direction is located approximately 1-mile from the subject property, on the golf course.

