

Municipal Setting Designations



MSDs: A new tool for Houston

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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.
- 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.



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 an 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:
 - 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

The MSD Approach



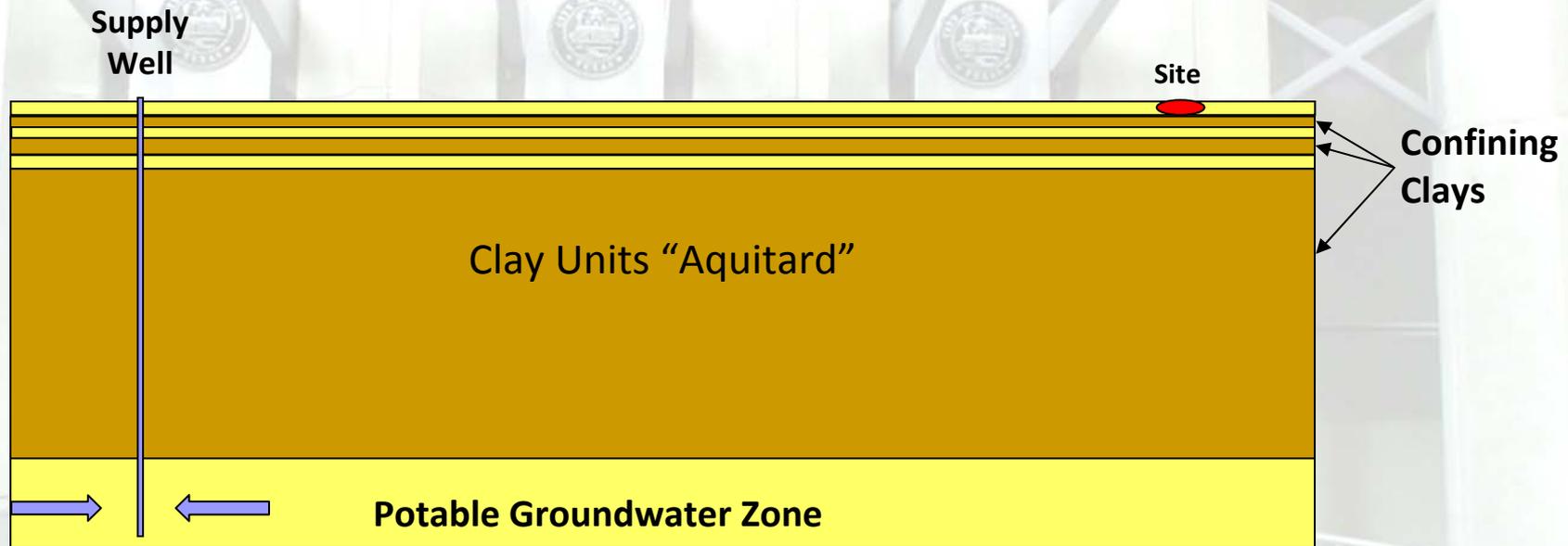
- Voluntary restriction to prevent the use of contaminated groundwater
- Alternate method to address groundwater contamination
 - State program created in 2003, administered by Texas Commission on Environmental Quality (TCEQ)
 - City process created in November 2007, administered by Public Works & Engineering
- 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



An 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 an 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 # 2009-021-DZR “Flex Tank Systems”
- 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 an MSD
- If supported, applicant submit their application to TCEQ
- TCEQ grants or denies an MSD
- If granted, City files restriction on property deed

The MSD Website



www.houstonmsd.org

City of Houston

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MSD Home

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MSD Home

History:

In 2005, 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 102 relating to groundwater, which will provide a process for supporting or not 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 eliminates 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 Well Head Protection Area and no MSD will 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.

Forms and Information

- Application Form
- 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@cityofhouston.net

For more information concerning the application or process of an MSD in Houston, GW: **Carol Ellinger Haddock**, Senior Assistant Director, PE, PW&E/Planning & Development Services Division, PH 713.837.0928, FX 713.837.0658

1 Article Title
 1 MSD Calendar
 2 MSD Completed
 3 MSD in Review

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

#	Article Title
1	MSD Calendar
2	MSD Completed
3	MSD in Review



Public Hearing



- Date: April 14, 2010
- Time: 9:00 am
- Place: City Council Chambers
- Address: 901 Bagby, Second Floor
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 4/14/10

Contact Information



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Municipal Setting Designations (MSDs)



FLEX TANK SYSTEMS

16514 De Zavalla Road

Channelview, Texas

MSD Application #2009-021-DZR

Presented by:

Weston Solutions, Inc.
Blake A. Dinwiddie, Project Manager
(713) 985-6600
b.dinwiddie@westonsolutions.com

MSD

General Overview

- MSD ordinance certifies that affected groundwater beneath a property is not currently used as a potable water source, and is prohibited from future use as a potable water source.
- MSD is allowed for properties with contaminated groundwater that are located in cities, provided there is a public water distribution system capable of supplying city water to the property.

MSD

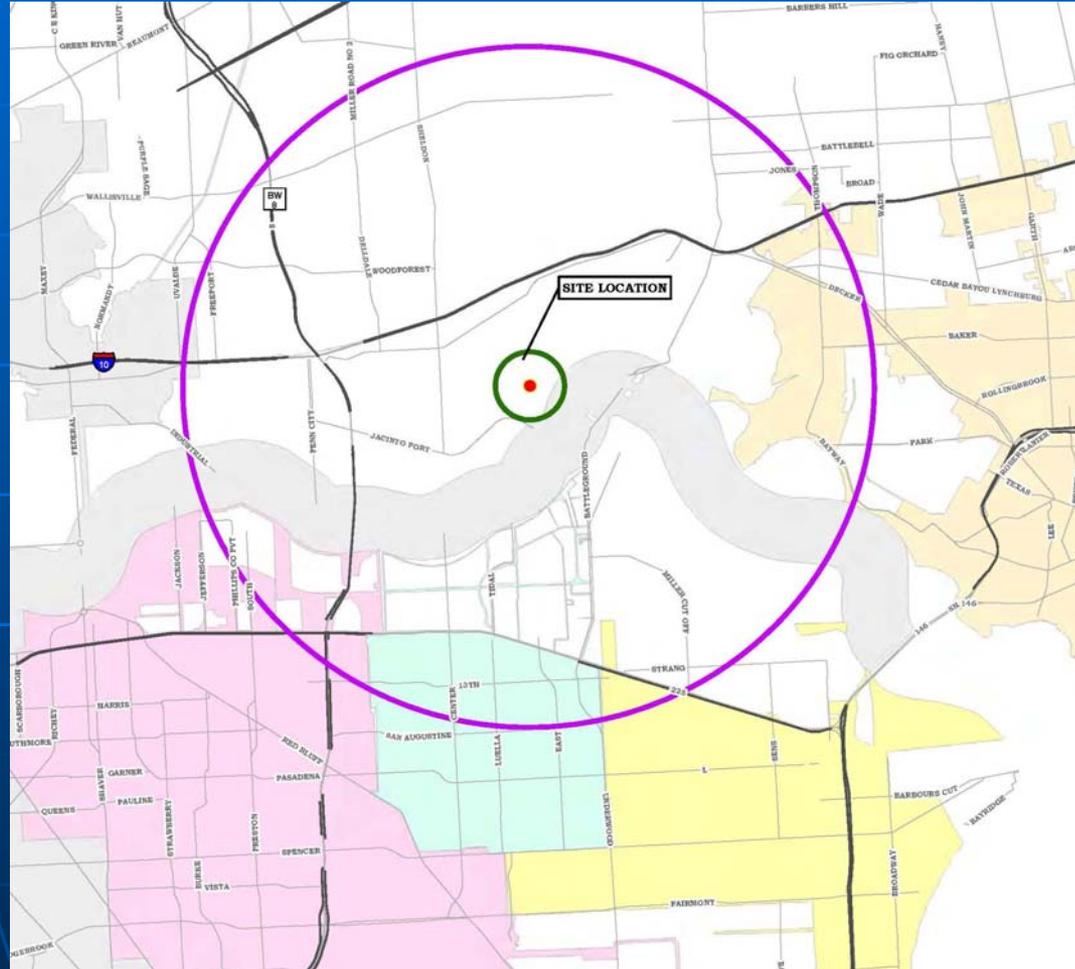
Benefit to Public

- Minimizes risk by ensuring that no water wells can be developed in the affected water-bearing zone.
- Development or re-development of the site, which may result in local jobs.

Flex Tank Systems Property

16514 De Zavalla Rd.

Site Location and 5-Mile Radius



Property Background and Description

- Property is located approximately 20 miles east of downtown Houston
- Property consists of two tracts of land that totals 20.25 acres in size of which 6.7 acres is the proposed designated (MSD) property
- Historical surrounding property use:
 - Mixed commercial/industrial and rural
- Site has participated in the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP) since 1997.

Property Background and Description (Cont.)

- Property use:
 - Undeveloped prior to 1981, developed in 1981 as a bulk transport truck loading facility.
 - Used from 1983 – 1994 as an unleaded gasoline distribution facility.
 - Current uses:
 - Distribution terminal for crude and cutter stock oils
 - Blending of heavy fuel oils
 - Used oil/oil filter/engine coolant collection and recycling

Groundwater Investigation Summary

- Shallow groundwater is impacted by gasoline related compounds, referred to herein as phase-separated hydrocarbons (PSH):
 - Benzene, Ethyl Benzene, Toluene, and Xylene (BTEX)
 - Methyl Tert-Butyl Ether (MTBE)
 - Total Petroleum Hydrocarbons (TPH)
 - Total Lead

Groundwater Investigation Summary (Cont.)

- Based on the results from site investigations performed since 1989, the PSH plume has not migrated or increased in size.
- Approximately 11,400 gallons of PSH was recovered from the groundwater via collection trenches that operated from August 2003 through March 2009.
- Estimated area of PSH plume is approximately 660 ft x 330 ft in size.

Groundwater Investigation Summary (Cont.)

- Flex Tank is not responsible for the PSH plume beneath the property, which resulted from historical operations prior to Flex Tank ownership.
- Documented pipeline and tank spills during operations prior to Flex Tank ownership include:
 - 1989 – underground line release, amount of fuel released was never determined.
 - 1993 - a release from a on-site tank reported to the TCEQ.

Flex Tank Property

PSH Plume Map – Aerial View



Groundwater Investigation Summary (Cont.)

- PSH plume is present in groundwater approximately 5 - 11 feet below ground surface.
- The affected groundwater zone is not a potable water source and is classified as a Class 2 groundwater resource.
- Data collected since 1989 indicates the PSH plume is stable and not expanding or migrating.
- Groundwater beneath the site has been shown to flow consistently to the south-southeast.

16514 De Zavalla
Monitor Well

Public Supply
Well

5-11 feet

Alluvial Deposits

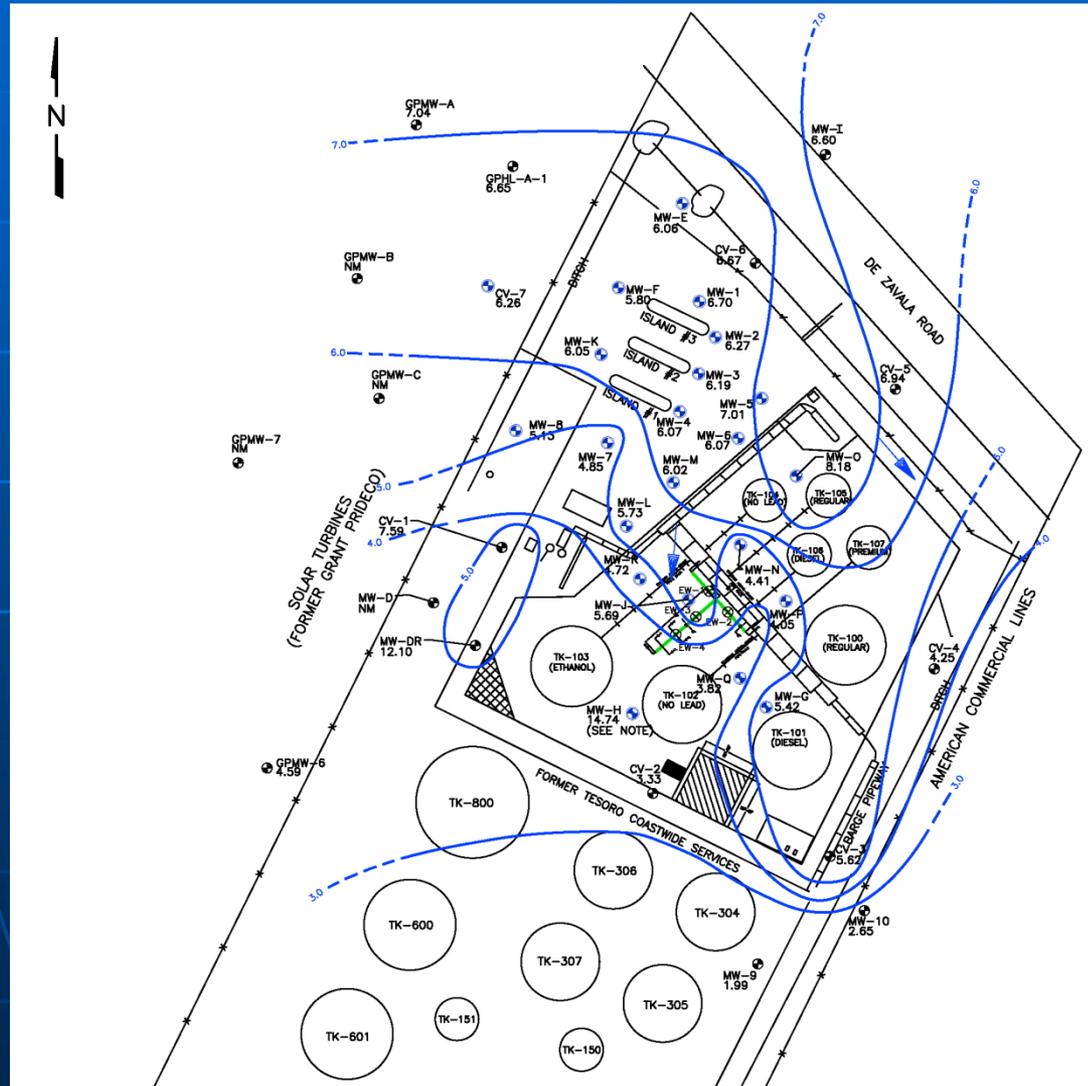
Alluvial Deposits

Confining Layer - Clays and Silts of the Beaumont / Montgomery / Bentley Formations

1,000 feet +

Evangeline Aquifer

Flex Tank Property Groundwater Flow Direction



Summary

- Site investigations performed indicate:
 - Flex Tank is not responsible for the PSH plume in the shallow groundwater beneath the property.
 - Historical operations prior to Flex Tank ownership resulted in the PSH plume beneath the site; including documented pipeline and tank releases/spills.
 - Sediment, soil, and surface water not affected.
 - PSH plume is present in groundwater approximately 5 – 11 feet below ground surface.
 - Groundwater flow is to the south-southeast.
 - PSH plume is stable and is not expanding or migrating.

QUESTIONS