

Municipal Setting Designations



MSDs: A new tool for Houston

Richard Chapin
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



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?

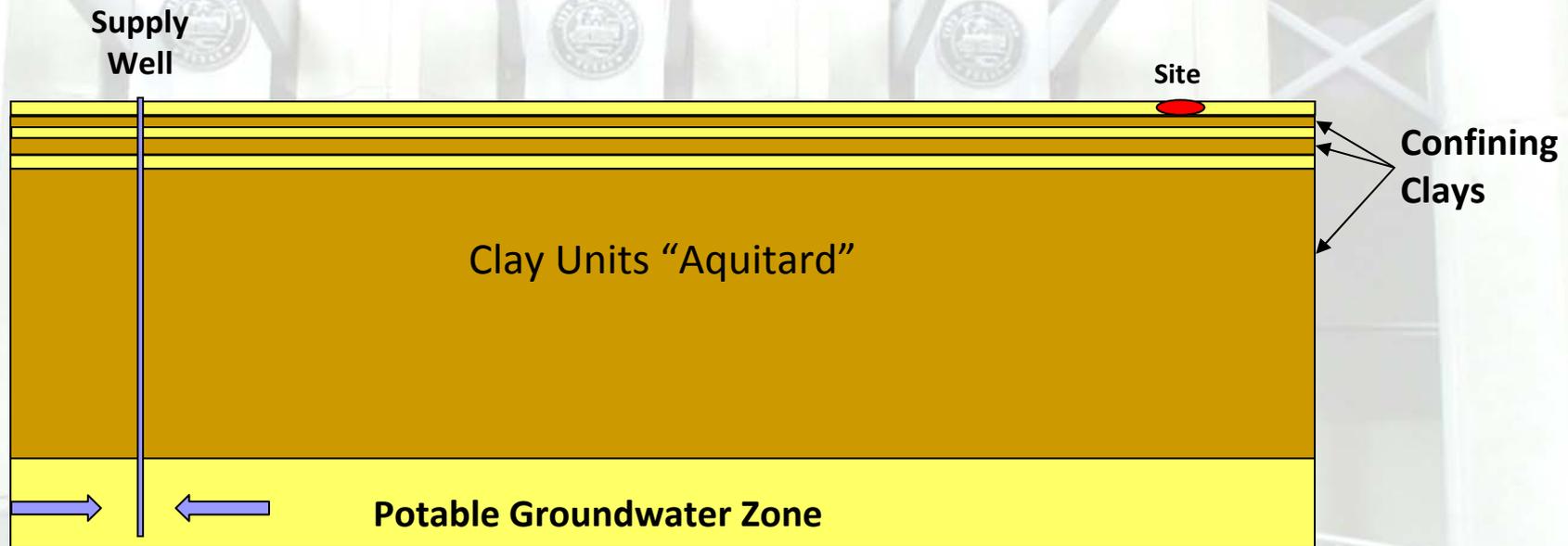
- Unless you are the applicant:
 - A MSD does not affect your property
 - A MSD does not affect your water well
 - There are no requirements on you
- Drinking water supplied by the City is not effected

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

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)



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 # 2009-018-Hardy Yards
“Hardy Street Rail Yard”
- 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

Public Hearing



- Date: December 9, 2009
- 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 (713) 247-1840 to reserve time not later than 8:30 am on 12/9/2009.

Contact Information



Richard Chapin
Senior Project Manager
Dept. of Public Works & Engineering
City of Houston,
611 Walker, 19th Floor
Houston, Texas 77002

msd@cityofhouston.net
(713) 837-0928

Hardy Street Rail Yard
1400 Fulton Street

CR V Hardy Yards, L.P.
301 Congress Avenue, Suite 500
Austin, Texas

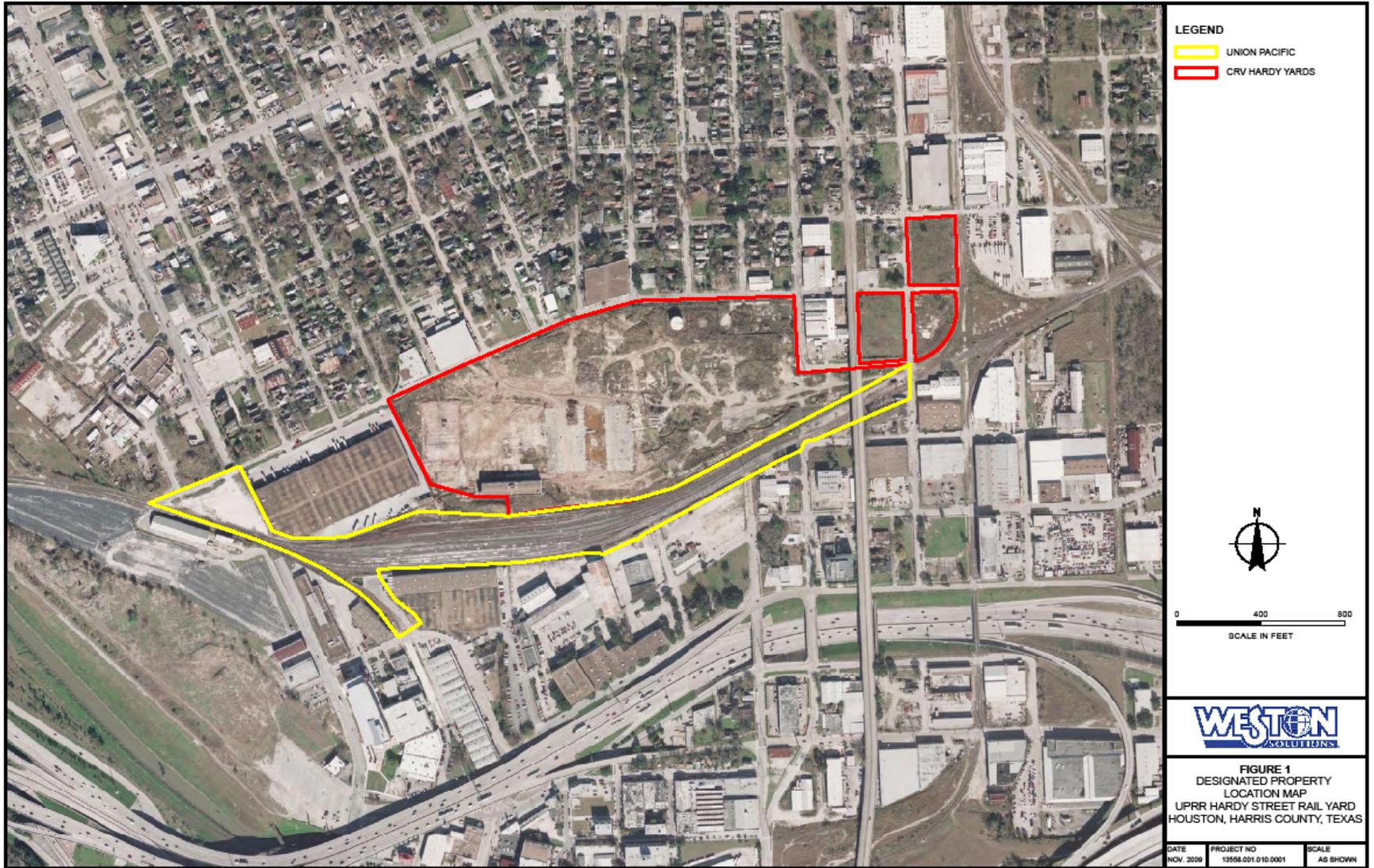
CR V Hardy Yards LP

- Real estate investment and development company.
- Bought the Hardy Rail Yard site in 11/05.
- With known contamination at the site, CR V became a joint applicant with Union Pacific, and others, to the Voluntary Cleanup Program.
- CR V envisions a mixed use development for the property with potential residential, retail, green space and commercial elements.

Benefit to Public

- An MSD for the Hardy Street Rail Yard will benefit the local community.
 - An MSD will minimize risk by restricting the use of the property's affected shallow groundwater.
 - Redeveloping the site will create local work.
 - Redeveloping the site will contribute to the renewal of the near-downtown area.

Site Vicinity



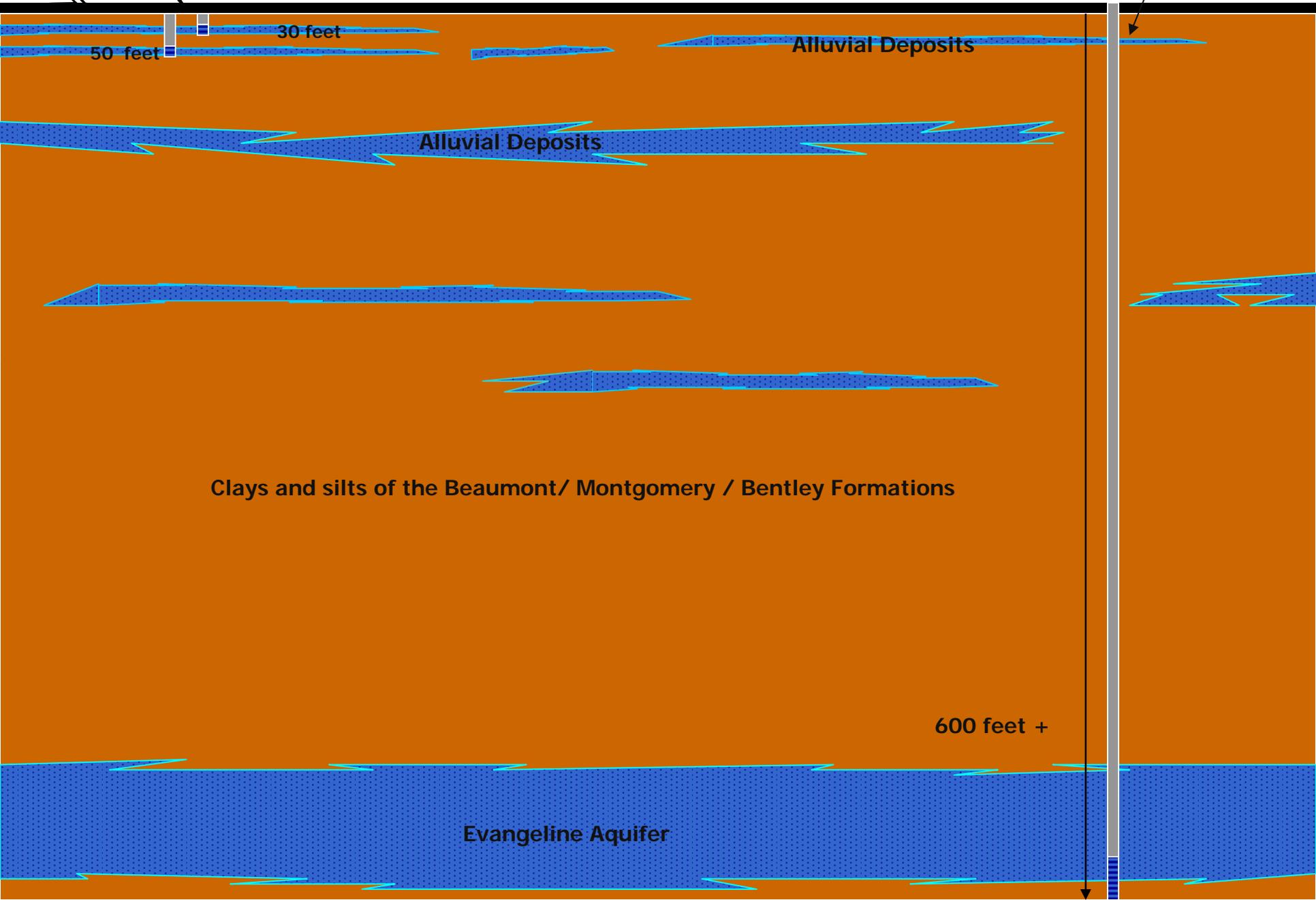
Site's Contamination

- Shallow groundwater contains chlorinated solvents (VOCs) and diesel.
 - The shallow groundwater does not pose a health risk, and would not be a suitable drinking water source even if it were not impacted.
 - The shallow impacts are separated, by several hundred feet, from deeper groundwater zones that might be used for drinking water.
 - Data indicate that the shallow groundwater impacts are stable or contracting in size.
- Soil was affected by metals and petroleum compounds. All uncovered impacted soil at the CR V site has been cleaned up to residential standards.



CR V Hardy Yards
Monitoring Wells

Public Supply
Well



50 feet

30 feet

Alluvial Deposits

Alluvial Deposits

Clays and silts of the Beaumont/ Montgomery / Bentley Formations

600 feet +

Evangeline Aquifer

Site Before

- Historical sources of contamination.
 - Spills and leaks from rail car maintenance and servicing operations.
 - Above ground and underground storage tanks.



Site Now

- The CR V site is currently vacant; 36.9 acres in size.
- The adjoining Union Pacific property is 11.5 acres.



Remediation Efforts

- The site was entered into the VCP in 1998.
- Site investigation and cleanup efforts have been ongoing for the past 10 years.



Remediation Efforts

- Approximately 130,000 cubic yards of soil were removed from the CR V site and disposed off-site.
- A diesel recovery system was operated at the site for 3 years. During this time, approximately 78,000 gallons of diesel were recovered and treated.

Remediation Efforts

- Groundwater monitoring is ongoing.
 - 50 monitoring wells are sampled semi – annually.
 - The presence of diesel is monitored quarterly.
 - 10 years of data indicate that areas of affected groundwater are stable or decreasing in size.

Remediation Efforts

- 1 above-ground diesel tank removed
- 4 underground storage tanks removed



Remediation Efforts

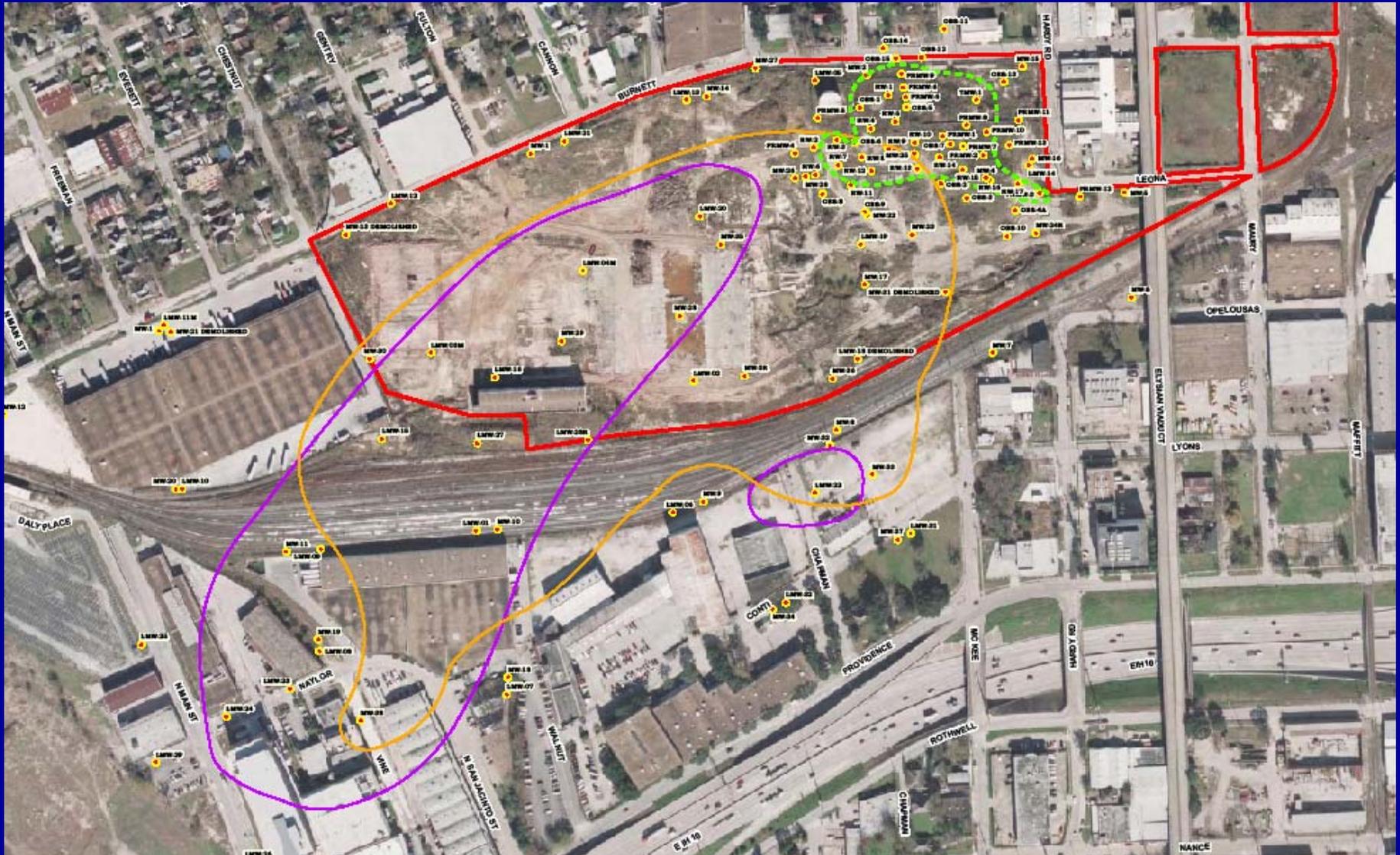
- Asbestos abatement and demolition of the structures on the property.



Remediation Efforts

- TCEQ granted a Final Certificate of Completion for 3.7 acres in 2007.
- TCEQ issued a Conditional Certificate of Completion in 2008 for 33.2 acres.
 - The CCOC certifies the covered property is acceptable for residential use with restrictions (e.g., groundwater use prohibited).
 - The CCOC includes requirement for groundwater monitoring.

Site Map



Groundwater Plume

- 110 monitoring wells have been installed to delineate the extent of the affected groundwater.
- Monitoring data has been collected for over 10 years.
- This data indicates stable to declining concentrations of compounds in groundwater, satisfying the TCEQ so that it issued the Conditional Certificate of Completion.

Summary

- Site investigation and cleanup has been ongoing for 10 years.
- Soil at the CR V site has been remediated to residential standards.
- Groundwater impacts are stable or decreasing.
- CR V's property is eligible for residential land use.