

CITY OF HOUSTON



**PUBLIC WORKS AND
ENGINEERING
PLANNING & DEVELOPMENT
DIVISION**

EXECUTIVE SUMMARY

Project Overview

InControl Technologies, Inc was retained by West Flex 20, L.P., to provide environmental consulting services at the 8600 Commerce Park property located at 8600 Commerce Park Dr., Houston, Harris County, Texas. The subject property (the Site) consist of approximately 1.931 acre (84,134 square feet) of land located southeast of downtown Houston, Harris County, Texas (**Figure B1**). The subject property is currently vacant. The surrounding area is developed with a mixture of commercial, light industrial, and residential properties (**Figure C1**).

The Site is located within the Brays Bayou Watershed (**Figure B2**). According to the Flood Insurance Rate Map (**Figure B3**) the Site is located inside the 0.1% annual chance (100 year) floodplain.

A VOC PCLE zone was identified on the northwestern portion of the subject property. The PCLE zone is depicted on **Figure B4**.

Historical Environmental Condition

As part of the due diligence, InSite Realty conducted several site investigation activities designed to define the nature and extent of the environmental impact from historical releases at the Site. The site is currently vacant. Historic property uses include semi-conductor manufacturing, a truck wash bay, and several above ground and underground USTs.

InSite conducted a Phase I Environmental Site Assessment (ESA) which identified potential recognized environmental conditions (RECs). A limited Phase II ESA was conducted on the subject property, which included the collection of soil and groundwater samples to determine if historic RECs had impacted soil and/or shallow groundwater. The results were compared to the most conservative Tier 1 Protective Concentration Levels (PCLs) (**Table F1** and **Table F2**). **Figure B5** depicts the locations of the soil and groundwater sampling points.

The lateral extent of groundwater impact has been horizontally delineated in all directions (**Figure B4**). A comparison of the sampling results available for the investigation areas indicates the area of impact has remained stable over time. Compound specific PCLE zones are depicted in **Figure B4**. The direction of groundwater flow is to the southwest (**Figure B6**).

InControl Technologies, Inc.

Four (4) water wells were identified within a ½-mile radius of the proposed MSD boundary. Two of the identified water wells within a ½-mile radius were listed as public supply and irrigation wells, respectively. Upon completion of the field survey, it was determined that these wells had been plugged. One of the wells was listed as private. This well was located at a residence, but no one was home when the field survey was completed, so the presence or absence of this well could not be verified. The last well identified, is located at the Westwood Country Club, and is still in existence. The residential well is 232-ft deep. This well is not at risk of becoming contaminated due to its cross-gradient location and distance from the subject property. The country club well is 708-ft deep. This well is not at risk of becoming contaminated due to its distance from the subject property. There is also a concrete lined drainage ditch immediately west of the subject property that will serve as a barrier to keep contamination from migrating in that direction.

Brays Bayou is located approximately 0.37-miles southwest of the proposed MSD boundary. Due to the distance of these water bodies from the 8600 Commerce Park MSD area, the bayou is not directly threatened by natural movement of the affected groundwater identified on the site (**Figure C1**).

Appendix B

A description of the current use, and, to the extent known, the anticipated use(s), of the designated property and properties within 500 feet of the boundary of the designated property.

The proposed MSD area is approximately 1.931 acre (84,134 square feet) of land located southwest of downtown Houston, Harris County, Texas. The affected property is located in a commercial and light industrial development (**Figure B1**). **Figure B1** (included in **Appendix B**) provides a description of the surrounding land use within 500-feet of the site.

From the available historical information, InControl Technologies determined that the subject property was undeveloped land from the early 1940s until development with the current warehouse structure in 1974. Since that time, the property was occupied by Texas Instruments from 1974 until 1990 and then Federal Express from the early 1990s to late 2010. Surrounding property use has consisted of commercial warehouses, offices, and residential development.

The property is currently vacant (**Figure B1**). Future use of the subject property is not known.

- North – Commercial development;
- East – Commerce Park Dr followed by commercial development;
- South – Commercial development;
- West – CenterPoint Energy property, followed by a concrete lined drainage ditch. Residential development is west of the concrete lined ditch.



LEGEND

-  MSD Boundary
-  500-ft Radius



0 200 400



Approximate Scale (Feet)

InControl Technologies, Inc.

3845 FM 1960 W, Suite 195
Houston, Texas 77068
(281) 580-8892 FAX (281) 580-8853

Surrounding Property Map

| | | | |
|--|-----------|--------------|-----------|
| SITE: | | PM: | |
| West Flex 20, L.P. | | MFM | |
| LOCATION: | | | CHECKED: |
| 8600 Commerce Park Dr Houston, TX 77036 | | | |
| DETAILED: | DESIGNED: | PROJECT NO.: | FIGURE: |
| 4/10/12 | MM | 242-110 | B1 |

Appendix C

A site map showing:

- a. The location of the designated property.
- b. The topography of the designated property as indicated on publicly available sources, which must note the watershed including the nearest surface water body and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code of Ordinances.
- c. The detected area of groundwater contamination.
- d. The location of all soil sampling locations and all groundwater monitoring wells.
- e. Groundwater gradients, to the extent known, and direction of groundwater flow.
- f. The ingestion protective concentration level exceedance zone for each contaminant of concern, to the extent known.

The figures set out in this section provide information required under Item 3. The maps depict the property location and topography, the area of groundwater contamination, the location of all soil sampling points and groundwater monitoring wells, the groundwater gradient, and the soil and groundwater PCL exceedance zones.

The following is a listing of figures included in **Appendix C**.

Figure C1 – Site location and topographic Map

Figure C2 – Watershed Map

Figure C3 – Floodplain Map

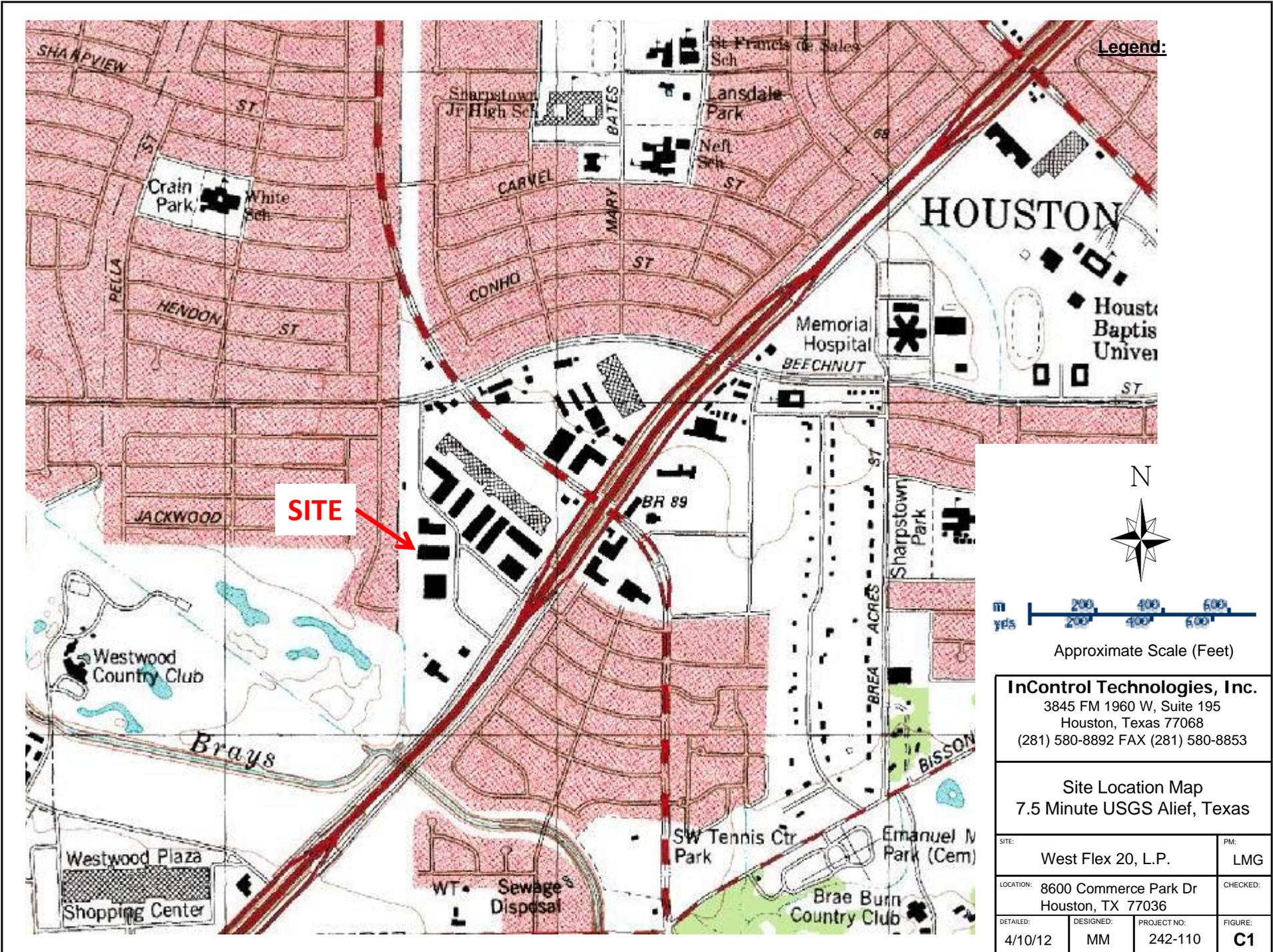
Figure C4 – Groundwater PCLE zones

Figure C5 – Soil sampling locations

Figure C6 – Groundwater Gradient Map

The subject property is located within the Brays Bayou watershed (**Figure C2**). The property is located within the 100-year floodplain (**Figure C3**).

Figure C4 depicts the groundwater PCLE zone within the proposed MSD boundary. These zones were developed based on several environmental samples collected from both soil and groundwater. **Figure C5** shows the locations of the soil and groundwater samples. Groundwater in this area tends to flow toward the south/southwest towards Brays Bayou (**Figure C6**). The primary chemicals of concern (COCs) are 1,1-DCA, 1,1-DCE, TCE, cis-1,2-DCE, VC, and MTBE (**Figure C4**). The only COCs that currently exceed the Tier 1 ^{GW}GW_{ing} PCLs are 1,1-DCE and vinyl chloride.



Legend:

SITE

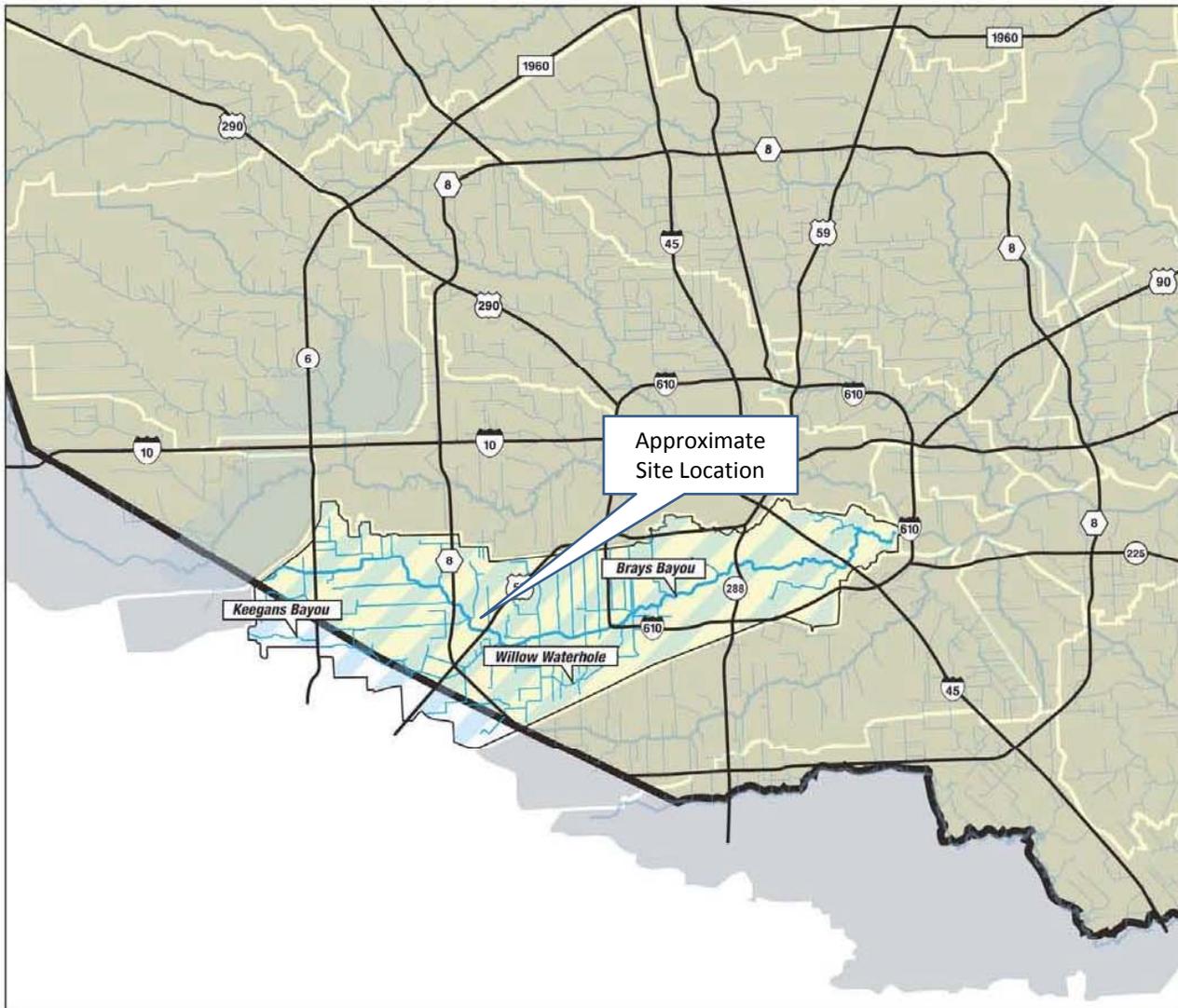


Approximate Scale (Feet)

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Site Location Map
 7.5 Minute USGS Alief, Texas

| | | | |
|--|--------------|---------------------|------------|
| SITE: West Flex 20, L.P. | | PM: LMG | |
| LOCATION: 8600 Commerce Park Dr Houston, TX 77036 | | CHECKED: | |
| DATE: 4/10/12 | DESIGNED: MM | PROJECT NO: 242-110 | FIGURE: C1 |



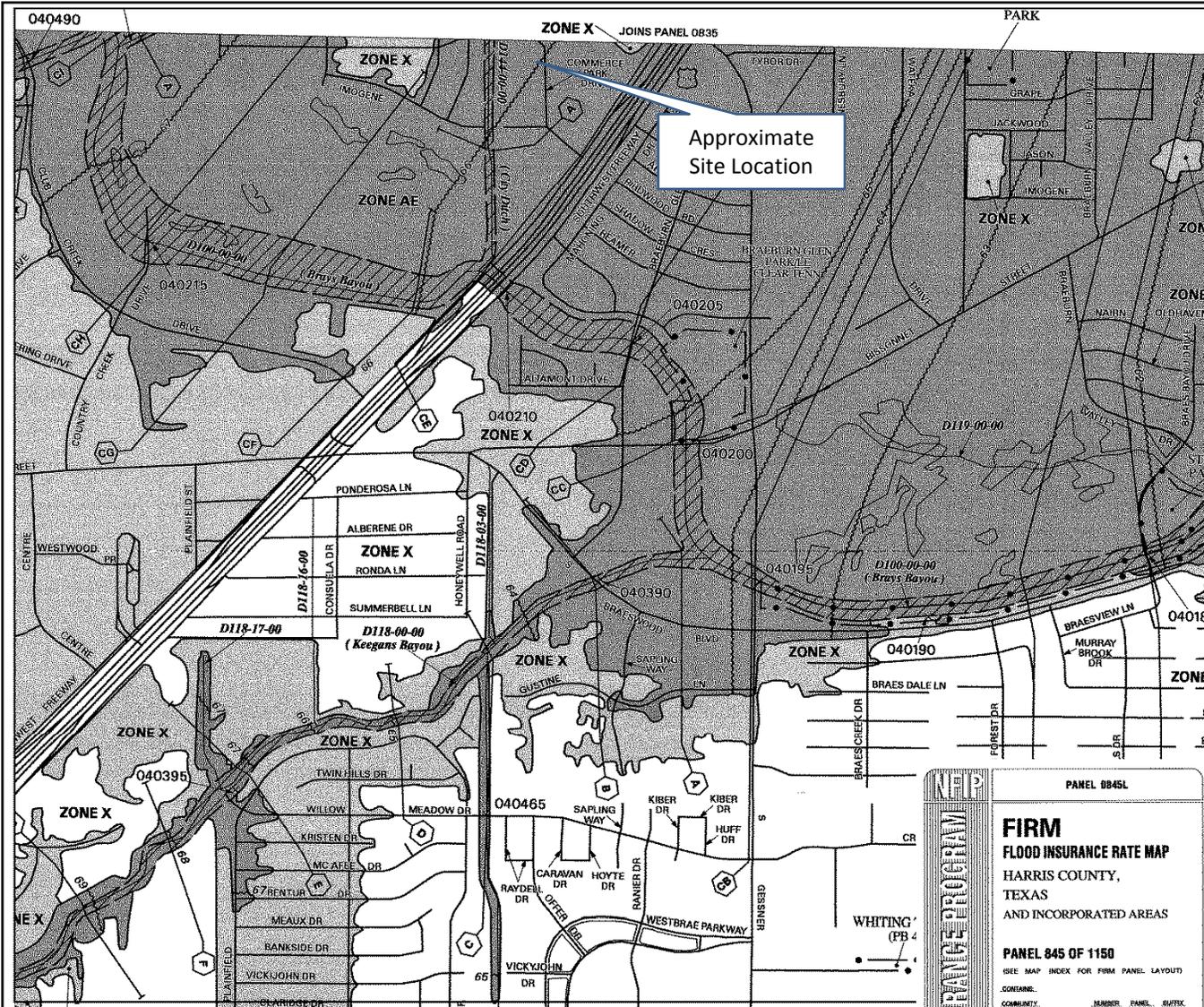
| |
|---|
| Drainage Area: 127 Sq. Miles |
| Watershed Population (in Harris County): 722,716 |
| Open Stream Miles: 121 Miles |
| Primary Streams: Brays Bayou Keegans Bayou Willow Waterhole |

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Watershed Map

| | | | |
|-----------|--|-------------|-----------|
| SITE: | West Flex 20, L.P. | PM: | LMG |
| LOCATION: | 8600 Commerce Park Dr Houston, TX 77036 | CHECKED: | |
| DETAILED: | DESIGNED: | PROJECT NO: | FIGURE: |
| CP | 11/22/10 | 242-110 | C2 |

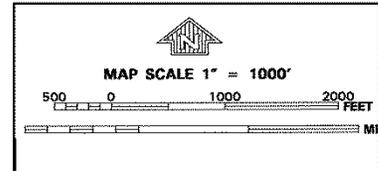
Source: Harris County Flood Control District



Approximate Site Location

LEGEND

- SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT
- The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AG, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.
- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently decommissioned. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood event.
- ZONE A99** Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no base flood elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); base flood elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or velocities.
- Base Flood Elevation line and value, elevation in feet*



PANEL BB45L

FIRM
FLOOD INSURANCE RATE MAP
HARRIS COUNTY,
TEXAS
AND INCORPORATED AREAS

PANEL 845 OF 1150
SEE MAP INDEX FOR FIRM PANEL LAYOUT

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|------------------------|--------|-------|--------|
| HOUSTON, CITY OF | 48006 | 845 | L |
| UNINCORPORATED AREAS | 89017 | 845 | L |
| STATIONERS, CITY OF | 48008 | 845 | L |
| MEMORIAL CITY, CITY OF | 48004 | 845 | L |

Notice to User: This Map Number shown below should be used when showing maps online. The Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER 48201C0845L
MAP REVISED: JUNE 18, 2007

Federal Emergency Management Agency

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Watershed Map

| | | | |
|-----------|--|-------------|-----------|
| SITE: | West Flex 20, L.P. | PM: | LMG |
| LOCATION: | 8600 Commerce Park Dr Houston, TX 77036 | CHECKED: | |
| DETAILED: | DESIGNED: | PROJECT NO: | FIGURE: |
| CP | 11/22/10 | 242-110 | C3 |

Source: FEMA

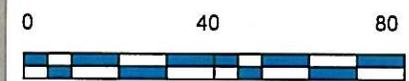


Legend:

- ⊕ Groundwater Monitoring Well
- Soil Boring Location/Temporary Groundwater Monitoring Well
- Groundwater PCLE Zone



N



Approximate Scale (Feet)

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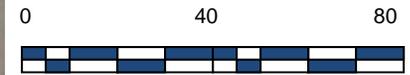
**Groundwater PCLE
 Zone Map**

| | | | |
|--|--------------|---------------------|------------|
| SITE: InSite Realty | | PM: MFM | |
| LOCATION: 8600 Commerce Park Dr Houston, TX 77036 | | CHECKED: | |
| DETAILED: 4/10/12 | DESIGNED: MM | PROJECT NO: 242-110 | FIGURE: C4 |



Legend:

- ⊕ Groundwater Monitoring Well
- ⊕ Soil Boring Location/Temporary Groundwater Monitoring Well

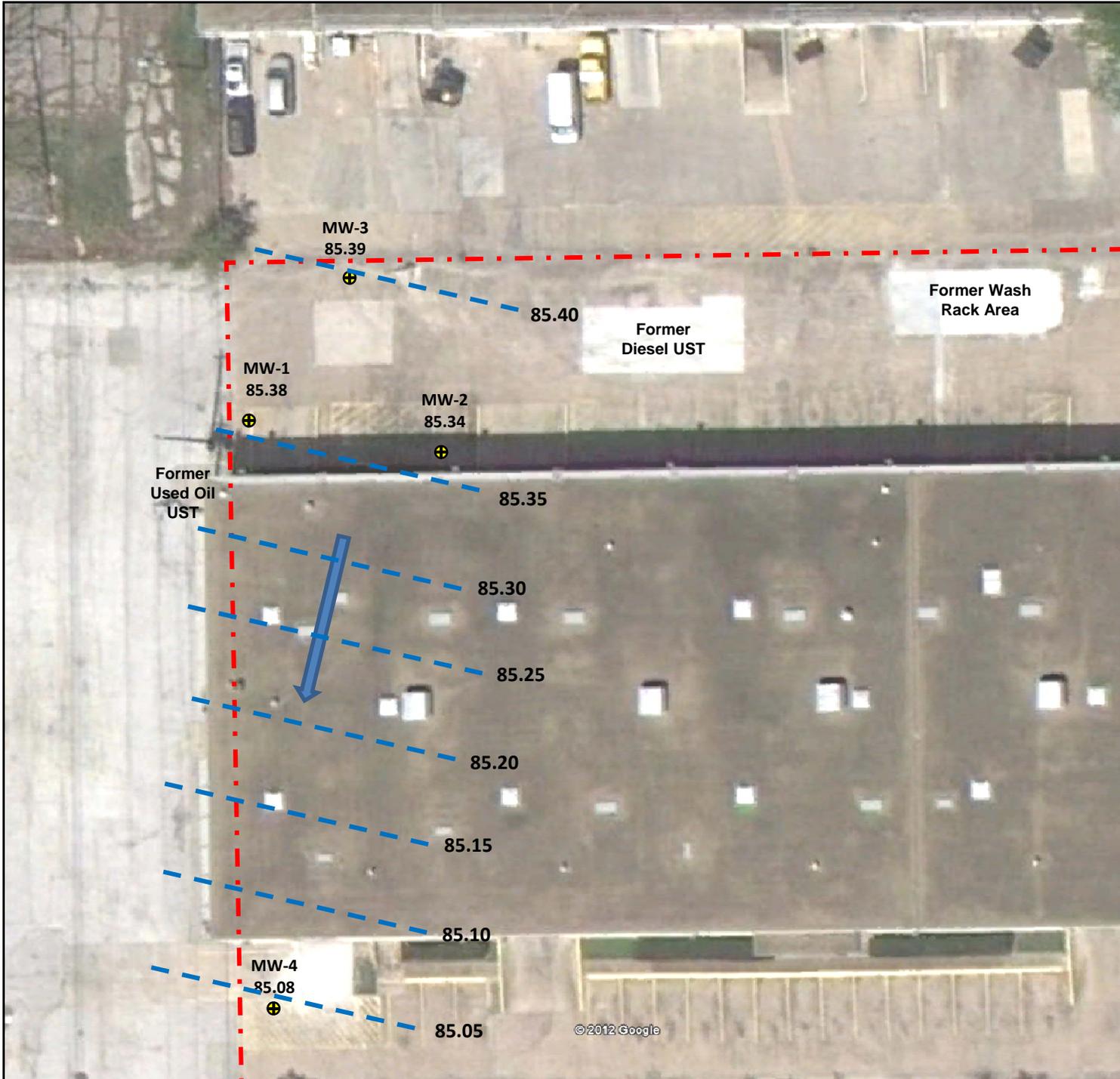


Approximate Scale (Feet)

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 Houston, Texas 77068
 (281) 580-8892 FAX (281) 580-8853

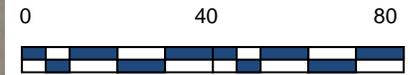
Soil Boring and Monitoring Well Location Map

| | | |
|--|-----------------|-------------------------|
| SITE: West Flex 20, L.P. | | PM: MFM |
| LOCATION: 8600 Commerce Park Dr Houston, TX 77036 | | CHECKED: |
| DETAILED: 4/10/12 | DESIGNED: MM | PROJECT NO.: 242-110 |
| | | FIGURE: C5 |



Legend:

- ⊕ Groundwater Monitoring Well
- Groundwater Gradient



Approximate Scale (Feet)

InControl Technologies, Inc.
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 Houston, Texas 77068
 (281) 580-8892 FAX (281) 580-8853

Groundwater Gradient Map
 August 2012

| | | | |
|--|--------------|---------------------|------------|
| SITE: West Flex 20, L.P. | | PM: CM | |
| LOCATION: 8600 Commerce Park Dr Houston, TX 77036 | | CHECKED: | |
| DETAILED: 4/10/12 | DESIGNED: MM | PROJECT NO: 242-110 | FIGURE: C6 |

Appendix D

For each contaminant of concern within the ingestion protective concentration level exceedance zone provide the following:

- a. A description of the ingestion protective concentration level exceedance zone and the non-ingestion protective concentration level exceedance zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.
- b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.
- c. Its basic geochemical properties (e.g. whether the contaminant of concern migrates with groundwater, floats, or is soluble in water).

A) Groundwater PCLE Zone – The primary COCs at the subject property are 1,1-DCA, 1,1-DCE, TCE, cis-1,2-DCE, VC, and MTBE. A review of recent groundwater sampling data indicates that the COCs that currently exceed the Tier 1 $^{GW}GW_{Ing}$ PCLs are 1,1-DCE and vinyl chloride. PCLE zones are depicted on **Figure C4** and are discussed in more detail below. The areas of affected groundwater are delineated in all directions.

According to the most recent groundwater data, the plume is confined within the proposed MSD boundary (**Figure C4**). None of the temporary monitoring wells installed initially reported COCs above a $^{GW}GW_{Ing}$ Tier 1 PCL. Only one of the permanent groundwater monitoring wells (MW-2) reported COCs above the $^{GW}GW_{Ing}$ Tier 1 PCL (**Table F2**). Monitoring well MW-2 is delineated to the north by MW-3, to the east by TMW-2, to the south by MW-4, and to the west by MW-1.

A comparison of the groundwater sampling results with applicable non-ingestion protective concentration levels ($^{Air}GW_{Inh-V}$) indicates that none of the groundwater samples reported a COC concentration above the $^{Air}GW_{Inh-V}$ PCL. Therefore, based on the recent groundwater monitoring results, there is no non-ingestion protective concentration level exceedance zone within the proposed MSD boundary.

Based on a review of boring logs, the shallow groundwater is encountered at a depth of approximately 15 feet below ground surface (ft bgs). The bottom of the shallow groundwater bearing unit is estimated at approximately 30 to 34 ft bgs.

B) Groundwater Data Ingestion PCL Exceedences – The following table represents the groundwater ingestion PCL exceedences that were reported from the most recent monitoring event for each Parcel:

Table D1 – Groundwater ingestion PCL Exceedences in First Groundwater Bearing Unit

| | | TCE (mg/L) | 1,1-DCE (mg/L) | Cis-1,2- DCE (mg/L) | 1,1-DCA (mg/L) | VC (mg/L) | MTBE (mg/L) |
|--|----------------|----------------------|-------------------|------------------------|-------------------|---------------|----------------|
| Tier 1 ^{GW} GW _{Ing} PCLs | | 0.005 | 0.007 | 0.07 | 4.9 | 0.002 | 0.24 |
| Tier 1 ^{Air} GW _{Inh-v} PCLs | | 24 | 1,666 | 1,229 | 43,000 | 3.8 | 4,000 |
| Monitoring Well ID | Sample Date | Concentration (mg/L) | | | | | |
| MW-2 | 8/15/12 | 0.0039 J | 0.019 | <0.001 | 0.007 | 0.0028 | <0.001 |

Notes – Values in **Bold** exceed the ^{GW}GW_{Ing} PCL (ingestion PCLE)
 Values in **Bold Italics** exceed the ^{Air}GW_{Inh-v} PCL (non-ingestion PCLE)

Groundwater COC concentrations tabulated above are less than the ^{Air}GW_{Inh-v} non-ingestion PCL. Therefore, based on the monitoring data there is no non-ingestion PCLE zone on the subject property.

C) Groundwater COCs – The chemicals of concern (COCs) detected in groundwater samples (TCE, cis-1,2-DCE, 1,1-DCE, 1,1-DCA, VC, and MTBE) are associated with the historic operations at the subject property included in the proposed MSD boundary.

Chlorinated solvents are characterized by their high volatilities, high densities, low viscosities, low interfacial tension, low absolute solubilities, high relative solubilities, low partitioning to soil materials and low degradability. Chlorinated solvents will dissolve in water at low concentrations but once the groundwater has reached the saturation limit for that compound, the chlorinated solvent will form a separate phase in equilibrium with the water. Because chlorinated solvents have higher densities relative to water, the separate phase will “sink”. These compounds are referred to as “dense non-aqueous phase liquids” (DNAPLs). In high concentrations DNAPLs will be able to penetrate the water table and form “pools” on the top of less permeable layers. Historically, DNAPL has not been identified in any of the monitor wells within the groundwater monitor well network and is not expected to be present at this site given the relatively low concentration of chlorinated solvents detected in groundwater.

Based on the field observations and laboratory results, it appears that the groundwater COCs on the subject property are primarily dissolved in the shallow groundwater.

Appendix E

Provide for each contaminant of concern within the designated groundwater:

- a. A description of the ingestion protective concentration level exceedance zone and the non-ingestion protective concentration level exceedance zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.
- b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.
- c. Its basic geochemical properties (e.g. whether the contaminant of concern migrates with groundwater, floats, or is soluble in water).

-
- A)** Refer to **Appendix D** for a discussion of the chemicals of concern (COC) in the ingestion protective concentration level (PCL) exceedance zone. Current groundwater sampling results indicate that there are several identified COCs (TCE, cis-1,2-DCE, 1,1-DCE, 1,1-DCA, VC, and MTBE) that exceed the ingestion protective concentration levels on the subject property in the shallow groundwater bearing unit. **Figure C4** depicts the PCLE zones.
 - B)** Refer to **Table D1** for a tabulated comparison of COC concentrations with the respective TRRP Protective Concentration Levels (PCLs)
 - C)** Refer to **Appendix D** for a discussion of the basic geochemical properties of the contaminants of concern (COCs) in the ingestion PCL exceedance zone.

Appendix F

A table displaying the following information for each contaminant of concern, to the extent known:

- a. The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.
- b. The critical protective concentration level without the municipal setting designation, highlighting any exceedences.

Appendix F contains tables summarizing the concentration levels for the primary chemicals of concern in soil and groundwater. The tables include the concentration level, the ingestion protective concentration limits ($^{GW}Soil_{Ing}$ for soil and $^{GW}GW_{Ing}$ for groundwater), the non-ingestion protective concentration limits for soil ($^{Tot}Soil_{Comb}$ and $^{Air}Soil_{Inh-V}$) and groundwater ($^{Air}GW_{Inh-V}$), the critical protective concentration limits assuming no MSD is in place ($^{GW}Soil_{Ing}$ for soil and $^{GW}Soil_{Ing}$ for groundwater), and the critical PCLs assuming that an MSD is in place ($^{Tot}Soil_{Comb}$ for soil and $^{Air}GW_{Inh-V}$ for groundwater).

Table F1 – Summary of Soil Concentration Data

| Sample Location | Sample Depth (ft bgs) | Date | Mercury (mg/kg) | Arsenic (mg/kg) | Barium (mg/kg) | Beryllium (mg/kg) | Chromium (mg/kg) | Lead (mg/kg) | Nickel (mg/kg) | Selenium (mg/kg) | Acetone (mg/kg) |
|---|-----------------------|---------|-------------------|-----------------|----------------|-------------------|------------------|--------------|----------------|------------------|-----------------|
| Tier 1 Residential ^{GW} Soil _{Ing} PCL (Critical PCL without MSD) | | | 0.0078 | 5.019 | 443 | 1.84 | 28 | 15 | 157.36 | 2.29 | 42.74 |
| Tier 1 Residential ^{Tot} Soil _{Comb} PCL (Critical PCL without MSD) | | | 3.6 | 24 | 8100 | 38 | 33,000 | 500 | 840 | 310 | 66,000 |
| Tier 1 Residential ^{Air} Soil _{Inh-v} PCL (Critical PCL with MSD) | | | 4.6 | - | - | - | - | - | - | - | 600,000 |
| Texas Specific Background Levels | | | 0.04 | 5.9 | 300 | 1.5 | 30 | 15 | 10 | 0.3 | - |
| B-1 | 8-10 | 3/16/12 | 0.000569 J | 3.67 | 143 | 0.604 | 5.27 | 7.04 | 8.71 | 0.901 | <0.0046 |
| B-2 | 8-10 | 3/16/12 | 0.00345 J | 3.19 | 98.4 | 0.614 | 5.76 | 7.35 | 7.86 | 0.617 | <0.0046 |
| B-3 | 2-5 | 3/16/12 | 0.0075 | 10.4 | 141 | 0.903 | 5.2 | 35.2 | 10.9 | 1.73 | <0.0046 |
| B-4 | 2-5 | 3/16/12 | 0.00401 | 0.471 | 66.2 | 0.428 J | 4.88 | 3.31 | 3.01 | 0.449 J | 0.0063 J |

Notes:

J- Analyte is estimated value between reporting limit and method detection (organics only)

| | |
|--|--|
| | Value exceeds the ^{GW} Soil _{Ing} PCL |
| | Value exceeds the ^{Tot} Soil _{Comb} PCL |
| | Value exceeds the ^{Air} Soil _{Inh-v} PCL |

Table F2 – Summary of Groundwater Concentration Data

| Sample Location | Date | TCE (mg/L) | 1,1-DCE (mg/L) | 1,1-DCA (mg/L) | cis-1,2-DCE (mg/L) | VC (mg/L) | MTBE (mg/L) |
|--|---------|-----------------|-------------------|-------------------|-----------------------|-----------------|----------------|
| Tier 1 Residential ^{GW} GW _{Ing} PCL (critical PCL without MSD) | | 0.005 | 0.007 | 4.9 | 0.07 | 0.002 | 0.24 |
| Tier 1 Residential ^{Air} GW _{Inh-v} PCL (critical PCL with MSD) | | 24 | 1,700 | 43,000 | 16,000 | 3.8 | 4,000 |
| TMW-1 | 3/16/12 | <0.0011 | 0.021 | 0.0024 J | 0.0055 | <0.001 | <0.0012 |
| TMW-2 | 3/16/12 | <0.0011 | <0.0013 | <0.0011 | <0.0025 | <0.001 | <0.0012 |
| TMW-3 | 3/16/12 | <0.0011 | <0.0013 | <0.0011 | <0.0025 | <0.001 | <0.0012 |
| TMW-4 | 3/16/12 | <0.0011 | <0.0013 | <0.0011 | <0.0025 | <0.001 | <0.0012 |
| MW-1 | 4/18/12 | <0.0011 | <0.0013 | <0.0011 | <0.0025 | <0.001 | <0.0012 |
| MW-2 | 4/18/12 | 0.0038 J | 0.023 | 0.0077 | <0.0025 | 0.0037 | <0.0012 |
| MW-3 | 4/18/12 | <0.0011 | 0.0017 J | <0.0011 | 0.0048 J | 0.0018 J | <0.0012 |
| MW-4 | 4/18/12 | <0.0011 | 0.0015 J | <0.0011 | <0.0025 | <0.001 | 0.0058 |
| MW-1 | 8/15/12 | <0.001 | <0.0006 | <0.0005 | <0.001 | <0.0005 | <0.001 |
| MW-2 | 8/15/12 | 0.0039 J | 0.019 | 0.007 | <0.001 | 0.0028 | <0.001 |
| MW-3 | 8/15/12 | <0.001 | <0.0006 | <0.0005 | 0.0085 | <0.0005 | <0.001 |
| MW-4 | 8/15/12 | <0.001 | 0.0014 J | <0.0005 | <0.001 | <0.0005 | 0.0072 |

Notes:

J- Analyte is estimated value between reporting limit and method detection (organics only)

| | |
|--|--|
| | Value exceeds the ^{GW} GW _{Ing} PCL |
| | Value exceeds the ^{Air} GW _{Inh-v} PCL |

Appendix G

A statement as to whether the plume of contamination is stable (i.e. no change), or contracting, and delineated, **with the basis for that statement.** Please include historical sampling data.

The 8600 Commerce Park MSD site groundwater has been affected by dissolved phase chemicals including TCE, cis-1,2-DCE, 1,1-DCE, 1,1-DCA, VC, and MTBE. These chemicals are believed to be associated with the historic operations conducted within the proposed MSD boundary which ceased in 2010. These chemicals are no longer used at the site and are a result of historical activities. These chemicals tend to move rapidly in the sub-surface environment and quickly reach equilibrium as long as there is no ongoing contributing mass source. The level of these compounds in soil is not believed to be a significant contributing source of mass to groundwater. In addition, the concentration of these chemicals in groundwater has not materially changed between April 2012 and August 2012.

The lateral extent of groundwater impact in the shallow groundwater bearing unit has been delineated in all directions. Permanent monitoring well MW-2 and temporary monitoring well TMW-1 report chlorinated solvents above a Tier 1 PCL. VOCs have been delineated to the north by MW-3, to the east by TMW-2, to the south by MW-4, and to the west by MW-1. **Figure C4** depicts the delineated COC plumes in shallow groundwater. The current groundwater plume is stable.

In summary, the groundwater data collected to date indicates that the area of affected groundwater is not expanding horizontally, and was the result of historic releases associated with past operations within the proposed MSD boundary. Given that these chemicals of concern are no longer used, there is no potential for further contribution.