



FARMERS BRANCH

MEMORANDUM

DEPARTMENT

To: Charles Cox, City Manager
From: Shane Davis, Director of Sustainability and Public Health
Date: August 31, 2021
Subject: Municipal Settings Designation: 2019 Valley View Lane

Groundwater is defined as water present below ground surface. Over time, precipitation can seep or percolate into the soil and accumulate on a rock formation that is impermeable or has a very low permeability. Water can also become trapped between thick layers impermeable soil over long geologic timespans. Therefore, groundwater can occur in different aquifers in a given geographical location. For example, below Farmers Branch there are three aquifers: the uppermost aquifer, the Woodbine Aquifer, and the Trinity Aquifer. Although more than one aquifer can be contaminated, the uppermost aquifer is typically the one that is contaminated, especially in urban areas.

The Texas Risk Reduction Program (TRRP) provides consistent procedures for investigating environmental releases from any source that threaten or affect groundwater, surface water, or sediment. TRRP establishes protective concentration levels (PCLs), which provide default values of maximum chemical concentrations that can exist in the soil or water without requiring further corrective action. In accordance with TRRP, there are two pathways to address contamination: pollution cleanup or exposure prevention. These different pathways are known as Remedy Standards. Which remedy standard is selected is determined on a case-by-case basis.

One exposure prevention pathway that can be selected is to prohibit someone from using the contaminate groundwater or soil. In Texas, an option is the pursuit of a Municipal Settings Designation (MSD). MSD is regulated by the Texas Commission on Environmental Quality (TCEQ). MSDs can be used as a form of groundwater remediation when groundwater at a potential development location within a city has contaminants. TCEQ receives, processes, and certifies MSD applications. TCEQ can only certify an application if there is local city support. City Council has the option to support or not support an MSD application.

An MSD is an official designation given to property where the underlying groundwater is contaminated in excess of the applicable potable water protective concentrations and the property is located within a municipality that certifies that the designated groundwater at the property is not used as a potable water, and is prohibited from future use as potable water. Because the groundwater underlying the designated property(ies) will be prohibited for use as potable water if an MSD application is certified, there must be an alternative source of potable water for the properties. Potable water, defined as water that is used for drinking, showering, bathing, cooking purposes, or for irrigating crops intended for human consumption, is provided by the City of Farmers Branch via its water distribution system. Potable water protective concentrations are the maximum concentrations of a contaminant in groundwater that is protective of human health. These concentrations are specific to each contaminant. To meet the conditions of a MSD, a municipality prohibits the use of the contaminated underlying aquifer by adoption of a city ordinance or a restrictive covenant that is enforceable by the city and filed in the property records. The MSD property can be a single property, multi-property, or a portion of property.

DISCUSSION:

Cozobel, LLC submitted an application to the City seeking a resolution of support from City Council for the MSD application to the Texas Commission on Environmental Quality (TCEQ). This is the third MSD application the City has received since the approval of the MSD Ordinance in 2016. A property is eligible for an MSD if: (1) it is within the corporate limits or extraterritorial jurisdiction of a municipality as authorized by statute; and (2) a public drinking water supply system exists that satisfies the requirements of the Texas Health and Safety Code Chapter 341 and that supplies or is capable of supplying drinking water to the Designated Property and all property within one-half mile of the Designated Property for which the MSD is sought. The Designated Property meets these criteria. The “Designated Property” for which this Municipal Setting Designation (“MSD”) Application has been completed is 2 acre tract of land located at 2019 Valley View Lane, Farmers Branch, Dallas County, Texas 75234.

A Phase I Environmental Site Assessment (ESA) for the property was conducted in 2017 when the current owner purchased the Property. The ESA identified volatile organic compound (VOC) usage on-site from 1969-1981, during the time when a semiconductor manufacturing facility occupied the Property. Semiconductor manufacturing is known to use various hazardous materials in the manufacturing process including VOCs, specifically solvents such as chlorinated solvents. A Phase II Limited Subsurface Investigation (LSI) conducted in 2017 found arsenic and lead concentrations in soil above the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 Protective Concentration Levels (PCLs) and concentrations of a VOC chlorinated solvent, tetrachloroethylene (aka PCE), in groundwater above TRRP Tier 1 Residential PCLs. No VOCs were detected in soil samples, and no metals were detected in groundwater samples above PCLs.

A review of TCEQ Voluntary Cleanup Program (VCP) files found a groundwater investigation was conducted the vicinity of the property in the early 2000s. The former Thermalloy facility at 2021 (now 2099) Valley View Lane on the east side of Senlac Drive discovered a release in 1999 that migrated to the north and northwest. Review of groundwater maps indicated that two monitoring wells were installed in 2002 on the west side of Senlac Drive. Chlorinated solvents were found in one of those monitoring wells. Thermalloy received VCP closure in 2015.

TCEQ Innocent Owner/Operator (IOP) files were reviewed for 2005 Valley View Lane (west adjacent). An investigation conducted early 2000s through 2015 identified VOCs in soil with a groundwater contamination plume extending west across Hutton Drive. Furthermore, the City of Farmers Branch inspection reports from 1974 and 1979 documented poor waste management and improper chemical storage at the west side of the Property from when it was a semiconductor manufacturing facility. The Property was accepted into the VCP on December 6, 2017 and issued VCP ID #2910. As part of the VCP, ten permanent monitoring wells (MW-1 through MW-10) and two additional soil borings were installed and sampled in 2018. Five surface soil samples were also obtained. Tetrachloroethylene was detected in groundwater samples obtained from MW-3 and MW-5 at concentrations that exceeded the TCEQ TRRP Residential Tier 1 PCL (PCL). Concentrations of arsenic in soil samples obtained from MW-3 and MW-5 exceeded the PCL. Although detected, no lead concentrations exceeded PCL in 2018 investigation. Groundwater was encountered at approximately 10-12 feet below grade in the borings, with a measured gradient to the west-southwest. After reviewing the findings, the applicant opted to pursue an MSD. TCEQ reviewed the findings and requested additional upgradient and downgradient investigation. As part of the MSD process, the applicant submitted an MSD application to the City of Farmers Branch. Staff reviewed the application and requested that willing adjacent properties and the Fire Department property located on Hutton Drive be included in the MSD. Two downgradient wells (MW-11 and MW-12) were installed at the City of Farmers Branch Fire Department property: one upgradient well (MW-13) was installed at 2051 Valley View Lane, and groundwater sampling was conducted in 2020. Onsite results were consistent with previous results. No VOCs were detected in MW-11 and MW-12, chlorinated solvents tetrachloroethylene (PCE) and trichloroethylene (TCE) were detected in groundwater above PCLs at off-site groundwater monitoring well MW-13, and PCE in soil sample collected from the installation of MW-13 exceeded the PCL. Critical PCLs were developed for the groundwater contaminants using TRRP ingestion PCL criteria. In groundwater, PCE was detected at concentrations greater than the Critical PCL in monitoring wells MW-3, MW-5, and MW-13, and TCE was detected at a concentration greater than the Critical PCL in monitoring well MW-13.

Based on historic and current groundwater sampling at the site and surrounding properties, the levels in the groundwater have met all water quality standards except drinking water standards. Groundwater at the applicant's property was encountered approximately 10-12 feet below grade. Since the City of Farmers Branch has a municipal water supply, groundwater is not used for drinking purposes. Therefore, it is not necessary to meet drinking water quality standards. Furthermore, based on the Environmental Site Assessment (ESA) findings, and according to the TCEQ memo, contaminant

concentrations occurred in decreasing trend with distance from the up-gradient eastern boundary of the property. The source of the chemicals is believed to be associated with historic activities associated with an industry formerly located at 2099 Valley View. However due to the limited size of the plume, there is no evidence that any private off-site water wells are affected, the contamination is no longer spreading, and the groundwater contaminant plume is receding.

By prohibiting the use of contaminated groundwater as potable water, the applicant potentially has a less expensive and faster alternative to existing state environmental regulations governing the investigation and cleanup of contaminated groundwater. If approved by the City of Farmers Branch, the MSD ordinance will prohibit the use of groundwater beneath the Designated Property as potable water and prohibit other inappropriate uses of, and contact with, the groundwater. The local ordinance will then be used to support an MSD Application to the Texas Commission on Environmental Quality (TCEQ). The Owners (Cozobel, LLC) will file a separate application with the TCEQ for an MSD certificate pursuant to the Texas Health and Safety Code, Chapter 361, Subchapter W.

In accordance with state regulations, public notices were sent out notifying residents and businesses within ½ mile of the MSD property boundary, groundwater supply well owners within 5 miles of the MSD property boundary, private water well owners within 5 miles of the MSD boundary that are registered with the Commission, and any retail public utility that owns or operates a groundwater supply well within 5 miles of the MSD property boundary that they have 60 days after they receive the notice letter to file comments with the TCEQ. 635 notices were mailed. In addition, a public meeting was held on August 24, 2021 in the Mesquite Room at the Farmers Branch Community Recreation Center at 6:30pm regarding MSD application. Both City staff and the applicant's consultant were there to give a presentation and address any questions or concerns. Other than City staff and the consultant, no one attended the public meeting.