

Taylor Road Landfill
Taylor Road, 1 mile south of Pruett Road
Seffner (Tampa), Florida
County: Hillsborough
District: Southwest
Site Lead: EPA
Placed on National Priorities List: October 23, 1981
ERIC ID # 3807

Site Description and History

The Taylor Road site is comprised of three landfills: The Taylor Road Landfill was owned and operated by Hillsborough County in Seffner from 1975 to February 1980 in Township 28S, Range 20E, Section 34 at 28° 00' 37.5058" N, 82° 17' 32.3277" W. The 10.6-acre DOT borrow pit/landfill and the 64 acre Hillsborough Heights landfill, were operated from 1980 to 1984. The area is located in a mixed residential, commercial, and agricultural community northeast of Tampa. The landfills were intended for the disposal of municipal refuse; however, disposal of unknown quantities of industrial waste is suspected.

Threat

The risk assessment has concluded that soils at the landfill do not pose a public health threat. Methane gas concentrations at the landfill site are currently controlled by a methane gas collection system.

Groundwater contaminants pose a threat to drinking water quality in the Floridan aquifer and to nearby private wells. Contaminants consist primarily of volatile organic compounds (VOCs) including chlorinated solvents and benzene, and metals particularly manganese and mercury. Quarterly monitoring of a ring of monitoring wells and maintenance of a 270-foot wide buffer zone has been ongoing as part of the Superfund remedy to track the limits of groundwater contamination and prevent exposure to site-related groundwater contamination via private well use. Residents on private wells within that buffer zone are provided the option of connecting to the public water supply. It has been necessary to expand the compliance ring and install additional monitoring wells 3 times since implementation of the remedy. The last expansion occurred in 2001. In addition, the County conducts regular sampling of private wells west of the site to assure that contamination does not go undetected. Due to periodic detections of manganese and mercury in two private wells along Buster Bean Road down-gradient of the site, the Hillsborough County Environmental Protection Commission (EPC) authorized funding to connect those residents to the public water system in 2007. The new water main extension was installed in 2008 and hookup of 7 homes to municipal water was completed in the spring of 2009.

Response Strategy and Status (December 2020)

In October 1980, the Department of Justice, on behalf of EPA, brought a federal civil suit against the county seeking injunctive relief. In October 1983, the Florida Department of Environmental Regulation (FDER, now DEP) and EPA signed a Resource Conservation and Recovery Act Consent Order with Hillsborough County Utilities Department. The Consent Order stipulated that

Hillsborough County perform the following landfill closure requirements: installation of a multimedia cap, drainage ditches, and a methane gas collection system; extension of the county water supply system to the residences of the contaminated area south of the landfill; and implementation of a 30-year groundwater monitoring program. The requirements of the Consent Order have been fulfilled, and the County provides quarterly groundwater monitoring reports to EPA and DEP.

In December 1983, complaints from area residents prompted the County to conduct a “special” water quality study north of the landfill. The study revealed low levels of oil and grease in several residential wells that did not appear attributable to the landfill because of their up gradient location.

In September 1985, the County's Compliance Monitoring Report showed that a potential existed for migration of contaminants west of the landfill. In late February 1986, the County reported that monitoring wells to the south and west of the Hillsborough Heights landfill were contaminated with VOCs. Both the County and EPA sampled private wells west of the site, but no contamination was found.

Since several potential contaminant sources existed in the area of the Taylor Road site, EPA initiated a study to compile all existing information on these sources and groundwater quality in the area. The September 1986 Forward Planning study identified 13 potential contributors to the area-wide groundwater contamination problem. The EPA completed an area-wide private well sampling survey in February 1987, including analysis of approximately 500 samples from private wells for VOCs and metals. As documented in the October 1988 report, less than ten wells were found to be contaminated with VOCs. Bottled drinking water was supplied to 12 residences and businesses.

The potentially responsible parties (PRPs) signed an Administrative Order of Consent (AOC) with the EPA to perform a remedial investigation/feasibility study (RI/FS) in February 1993. The final RI was approved by EPA in September 1994 and presented sampling data indicating that VOC groundwater contamination above drinking water standards extended approximately 200 feet south-southwest of the site. A final FS report was completed in June 1995.

In July 1995, the EPA presented the Agency's proposed site remedy at a public meeting. The EPA signed the Record of Decision (ROD) identifying the selected remedy in September 1995. The selected remedy includes natural attenuation and groundwater monitoring with contingent active groundwater remediation or other appropriate action if groundwater contaminants migrate outside the designated area of compliance. Residences located within the existing protective ring of monitoring wells surrounding the site would be hooked up to the public water supply system. If monitoring indicates that groundwater contaminants exceed acceptable levels at the ring of monitoring wells, residences within the adjacent 270-foot wide buffer zone will also be hooked up to the public water supply system.

DEP issued a letter of concurrence for the EPA ROD in February 1997. EPA finalized consent decree negotiations with the PRPs in January 1998 in which the PRPs agreed to perform remedial action for the site. The EPA approved construction completion in May 1999. In August 2000, the

EPA issued an Explanation of Significant Difference (ESD). The ESD removed Secondary Drinking Water Standards as relevant and appropriate cleanup criteria for the site. DEP has not concurred with the ESD.

Quarterly groundwater monitoring along with annual evaluation of the data is ongoing to confirm that natural attenuation of groundwater contaminants is occurring as anticipated. Hookup of residences to the public water supply system has been implemented where monitoring has indicated its appropriateness, per the ROD. Monitoring of the private residential wells located west of the plume is also conducted to confirm that these wells are not affected by site-related contaminants and to assure appropriate action if necessary, to prevent exposure.

At one time, the groundwater plume of VOCs exceeding drinking water standards extended approximately one mile down gradient (south-southwest) of the landfill. Sampling during the Superfund RI indicated that VOC groundwater contamination had declined, and VOC and metals contamination exceeding drinking water standards was limited to approximately 200 feet down gradient of the site. However, expansion of the plume to the north and west-southwest approximately 300 feet necessitated expansion of the buffer zone with installation of 5 additional downgradient “ring” monitoring wells in order to track the extent of the groundwater plume, approaching the offsite private wells. The last expansion of the buffer zone occurred in July 2001.

An initial evaluation of the progress of natural attenuation at the site was completed in August 2001 and included a statistical evaluation of trends in the decline of groundwater contaminant levels from January 1995 to April 2001. Additional annual evaluations were completed in June 2003 and 2004. The evaluations concluded that overall, contaminants in groundwater were continuing to attenuate. The Superfund Five Year Review (FYR) Report was submitted to State and local agencies for review and finalized by the EPA in July 2003. The Five Year Review concluded that the remedy currently protects human health and the environment because groundwater monitoring at the ring of wells ensures contingent measures can be taken prior to impacts to domestic wells; institutional controls restrict the installation of new domestic supply wells in the affected area; RCRA post-closure care of the landfill minimizes impacts to the aquifer; and monitoring indicates that natural attenuation is occurring. The Review made specific recommendations for actions that should be taken in order to assure its continued protectiveness including repair and enforcement of access controls; improved routine maintenance of monitoring wells; update of the potable well survey to ensure the effectiveness of current institutional controls; continued long term O&M of the landfills; re-establishment of annual groundwater statistical evaluations; and improved responsiveness to ongoing community concerns.

In the September 2003 groundwater monitoring of private wells along Buster Bean Road southwest and down gradient of the site, mercury, and manganese were identified in a private well at concentrations exceeding primary and secondary drinking water standards. The property owner was notified, and it was confirmed that the well was not used for potable water. Subsequent private well sampling in October and November 2003 indicated that water produced by the well met drinking water standards. Manganese was observed above secondary standards in another off-site private well in 5 consecutive monthly monitoring events in 2004 – 2005.

The 2004 updated private well survey identified 51 new private wells in the area including 8 irrigation wells within the delineated area surrounding the site. Sampling of two active irrigation wells near the site confirmed VOCs in one of the wells. The two wells are currently being monitored and operation of those wells has been discontinued at the instruction of the Southwest Florida Water Management District (SWFWMD). The SWFWMD is working with EPA and DEP to ensure that any newly permitted wells are installed to depths no less than 150 feet below land surface in the delineated area surrounding the site.

The EPA completed the 2nd Five Year Review in September 2008 as required under Superfund and confirmed the continued protectiveness and effectiveness of the site remedy. Hook up of residents along Buster Bean Road to municipal water lines was completed in the spring of 2009.

The Taylor Road site received the EPA Region IV “Excellence in Reuse” award in 2010, whereby EPA recognized the efforts and success of redevelopment and land reuse at this Superfund site. Reuse activities at this site include municipal land uses such as the ongoing generation of electricity from recovered methane via micro turbines as well as use as a flying field by a local model airplane club. Other reuse options being considered are a transfer stations, recycling center, hay production, and additional recreational uses.

The 3rd Five Year Review (FYR) was completed and signed by EPA in September 2013, concluding that the remedy remains protective. Review and optimization of the groundwater monitoring requirements was recommended.

In April 2015, the County provided a “Proposed Optimization of Groundwater Monitoring Plan”, based on recommendations in the EPA 2013 FYR and the 2012 Statistical Evaluation report for the Superfund site. The proposal included reducing the frequency of sampling of the compliance ring wells from quarterly to semi-annually and the background and interior wells from quarterly to annually. The monitoring scope was reviewed by DEP to ensure that the monitoring frequency, and proposed monitoring wells and analytes remained adequate to monitor the continued effectiveness and protectiveness of the Superfund remedy, and were consistent with the State long-term care post-closure requirements.

Implementation of the optimized monitoring plan as part of the required Superfund site cleanup began in 2016. The optimized groundwater monitoring plan was incorporated into the State Long Term Care post-closure permit renewal for the site in August 2016.

The 4th FYR was signed on September 18, 2018.

Schedule

Semi-annual groundwater monitoring is continuing. Groundwater data indicates that natural attenuation is ongoing, and has confirmed that concentrations in the compliance ring wells continue to remain below applicable ROD standards.

The next FYR is anticipated for 2022.