

Lakeland Tanning Site
US Highway 92 and Reynolds Road
Lakeland, Florida
County: Polk
District: Southwest
Site Lead: Waste Cleanup Program
Approved for Cleanup: May 10, 1999
ERIC ID # 3895

Site Description and History

The Lakeland Tanning site is located on the southeast corner of the intersection of US Highway 92 and Reynolds Road in Lakeland, Florida in Township 28S, Range 24E, Section 14 at 28° 02' 47.7929" N, 81° 53' 21.4741" W. The site is approximately 21 acres and is divided into two parcels. Two areas of the site are included in the National Wetland Inventory; A marshy area, approximately 100 feet in diameter, in the center of the site and a wetland on the eastern parcel. A portion of the factory building foundation remains on the western parcel. Land use within a ¼ mile radius of the site is primarily light industrial, residential, or farmland.

Tanning operations began at the site in 1946. Although the exact method of tanning is unknown, the onsite activity consisted of tanning cattle hides. The facility ceased operations in August 1966, when the factory was destroyed by fire. At the time of the fire, the facility was known as Imperial Polk Leathers, Inc.

Various companies owned the property between 1966 and 1985. Based on records located on the Polk County Property Appraiser's website, H&O Food Sales, purchased the site in 1985. It appears that H&O Food Sales stopped paying property taxes at some point after the 1985 purchase. The approximately 10-acre western parcel was purchased by Prodigal Corporation in 1996 in a tax deed sale. The eastern parcel, owned by Lisa Johnson, was purchased in 1995 and used as a golf driving range but is now vacant.

Threat

Soil contaminated with chromium and arsenic at concentrations above the industrial/commercial Soil Cleanup Target Levels (SCTLs) remains in the wetland area on the eastern parcel. Sediment exceeding the Sediment Quality Assessment Guidelines (SQAGs) for chromium and mercury exists in the wetland on the eastern parcel and extends offsite to the east and south. A groundwater sample collected from an existing monitoring well offsite to the south of the property indicated that sodium impacts extend offsite in the groundwater.

Response Strategy and Status (December 2020)

In 1987, two nearby business owners filed complaints about possible contaminant sources coming from the former Lakeland Tanning site. In response to these complaints, the United States Environmental Protection Agency (EPA) conducted a Preliminary Assessment.

A Final Screening Site Inspection was conducted for the EPA by NUS. Sample results confirmed the presence of high levels of chromium contamination in onsite soil and sediment samples

collected from impoundments. Chromium was also detected in onsite groundwater samples. The Interim Final Listing Site Inspection Report was finalized in 1990. The report noted soil, surface water and sediment exceedances of MCLs for site contaminants of concern but the site was not included on the National Priorities List because the EPA determined that these findings could not support migration of site-related contaminants.

Environmental Engineering Consultants (EEC) completed a Phase II Environmental Audit in May 1990 on behalf of H&O Food Sales. Concentrations of chromium in three groundwater samples exceeded the maximum contaminant level (MCL) which was 0.05 mg/L at the time of assessment.

In 1992, EEC completed a Contamination Assessment Report (CAR) to assess the impact of wastewater activities on the onsite sludge and soil. Analysis of soil collected beneath the sludge indicated that chromium had not leached into the soil. Based upon this information, it was estimated that 8,000 cubic yards of sludge and topsoil were contaminated with chromium. The groundwater samples indicated that chromium was present above the GCTL. Three groundwater samples were analyzed for hexavalent chromium, but only one sample yielded a detectable value. In November 1992, EEC completed a Solidification Project Remedial Work Plan for H&O Food Sales, which proposed immobilization of the waste and installation of a monitoring well network to demonstrate chromium was not leaching into the groundwater.

In 1996, the South West Florida Water Management District (SWFWMD) requested that the site be considered for State-funded cleanup. The Lakeland Tanning site was approved for State-funded cleanup in June 1999.

The DEP obtained site access from the Prodigal Corporation in 2001. Soil assessment activities began in January 2002. Soil assessment results indicated that industrial/commercial Soil Cleanup Target Levels (SCTLs) were exceeded for chromium, arsenic, lead, and mercury. Most of the soil samples exceeding the industrial/commercial SCTLs were collected in what is described as a "sludge" that represents the tanning wastes.

A groundwater investigation was conducted in September 2002. Samples were collected from 19 monitoring wells and the industrial supply well. The results for several monitoring wells exceed the GCTLs for cadmium and sodium. At the time of the assessment there were several areas of standing water. Some of the areas of standing water coincided with impoundments connected with tannery operations. Surface water and sediment samples were collected from areas with standing water. Mercury, arsenic and barium exceeded the surface water cleanup criteria and chromium concentrations in sediment samples ranged from 26,000 to 89,000 mg/kg. The details of the 2002 groundwater assessment were summarized in a February 2003 Groundwater Assessment Report. The report also contained a preliminary evaluation of remedial alternatives including excavation with offsite disposal, clean soil cover or onsite consolidation of contaminated soil.

A work plan with a scope of work for delineation of the extent of contaminated soil and sludge and identification of disposal options and related costs for excavation of the contaminated soil was submitted in 2003. The Department's contractor completed additional soil sampling to better define the areas for excavation. Based on the results of additional sampling the contractor also

concluded that barium and vanadium concentrations were similar to concentrations detected offsite and likely naturally occurring.

In 2010, the Department and property entered into a restrictive covenant in order to allow the Department to remediate to commercial/industrial SCTLs.

Soil excavation began in March 2011. During the excavation, contamination over the original scope of work was discovered including a large quantity of construction debris, asbestos containing material (ACM) and decaying leather. As a result, the Department moved to a phased approach to complete the excavation with earlier efforts focusing on the western parcel which appeared to be the source area with the exception of impoundments occurring on the eastern parcel.

Approximately 21,928 tons of contaminated soil/sludge as well as limited amounts of building debris were removed and disposed during excavation phases 1 through 5. Excavation activities including waste manifests and field notes were summarized in excavation reports. Confirmatory soil samples collected during the excavation exceeded the commercial/industrial SCTLs for total chromium and arsenic.

Based on the results of phase 5 confirmatory soil sampling, the Department requested a Sampling Analysis Plan to complete the soil removal action on the western parcel. Soil sampling was completed in August 2014. The results showed additional areas of soil contamination above the commercial/industrial SCTL for chromium and arsenic. The data was incorporated into a source removal plan to address remaining areas of contaminated soil on the western parcel.

Offsite contamination notification was completed based on data collected in March and May 2015. At the request of the Department, a three well cluster was installed on the western parcel to assist in contaminant plume delineation.

The Interim Source Removal for the final phase of soil excavation on the western parcel was completed in 2015. A total of 6,480 tons of impacted material was removed during the final phase of excavation on the western parcel. Additionally, the contents of a concrete structure partially located on the western parcel were removed and disposed of under a separate Interim Source Removal Work Plan.

A comparison of pre- and post-excavation site elevations on the western parcel was completed to ensure the excavation has been completed in accordance with the Agreement to Allow Excavation and Removal of Certain Trees. The elevation in excavated areas has been restored to match the previous elevation as closely as possible. Site restoration field work on the western parcel was completed in June 2016 with an application of hydroseed.

Excavation of soil exceeding the commercial/industrial SCTLs for chromium and arsenic on the eastern parcel upland was completed in May 2018. Approximately 6,446 tons of impacted soil was removed and disposed. Site remediation and restoration is summarized in the Interim Source Removal Report dated June 22, 2018. There are remaining sediment and surface water

exceedances in the berm, impoundment and wetland on the eastern parcel. Impacted sediment extends offsite to the east and south.

The Department completed a review of the Screening Level Ecological Risk Assessment dated April 2017 and agrees with the recommendation to prepare a remedial design for meeting the goals established for surface water and wetland sediments in the eastern parcel wetland.

The soil excavation in the berm area and impoundment on the eastern parcel was completed between March and May 2020. Approximately 5,370 tons of impacted soil were removed from the site.

Schedule

The site is also included in a pilot study focusing on Per-and polyfluoroalkyl substances (PFAS) potentially linked with leather tanning. The supplemental site assessment was submitted in April 2020. Based on a review of the report, additional PFAS assessment is planned. The new data will be incorporated in a revised site investigation report which is due in May 2021. Finally, additional soil assessment in the CSX right of way is planned with a summary report due in May 2021.