

Targeted Brownfield Assessment

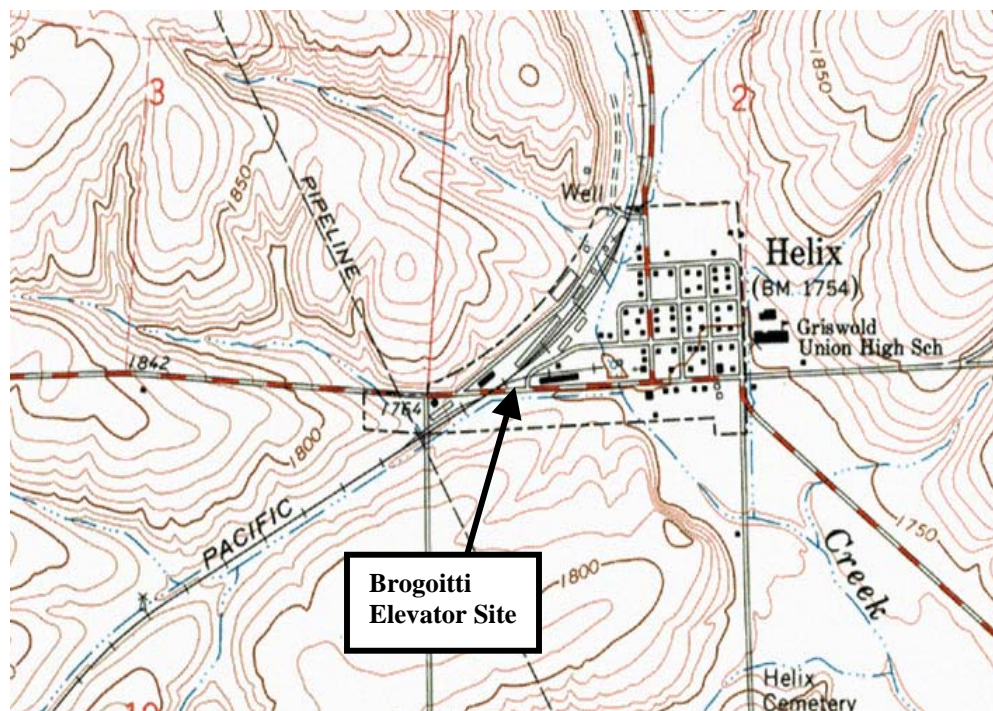
Former Brogoitti Elevator Site -- Helix, Oregon

Project Overview

In December 2003, the Oregon Department of Environmental Quality (DEQ) completed a Targeted Brownfield Assessment (TBA) at the Brogoitti Elevator site in Helix, using funding from EPA Region 10. (The City of Helix is an economically distressed rural community in northeast Oregon.) Past grain-elevator and seed-processing operations had contaminated soil and groundwater, and the TBA was designed to fill information gaps from prior site investigations. Umatilla County, the site's owner via foreclosure, wished to redevelop the property for commercial/industrial use, but could not afford an environmental investigation or cleanup.

Site Background

Located on the west side of Helix (see map), the site is divided into north and south parcels. In 1926, Mr. S.E. Brogoitti purchased the site from Standard Oil of California, and started a grain-elevator business. No tax records prior to 1926 are available; because the incorporation date of Helix was 1919, the facility was most likely



developed around that time. The Brogoitti family ran its grain-elevator business until 1962, when it formed the Brogoitti Elevator Corporation (BEC). BEC ceased operations at the site in 1993 and later filed for bankruptcy. The site subsequently reverted to county ownership.

Primary operations at the site included: 1) storage, treatment, and sale of grain and seed; 2) storage, mixing, and sale of fertilizer and other farm chemicals; and 3) storage and dispensing of petroleum/fuel products. The 7-acre northern parcel, containing various buildings and a cardlock fueling area, has been inactive since 1993. Several underground storage tanks (USTs) remain in place on this parcel. A refuse-burial area may be present along the site's northwest boundary. The 2-acre southern parcel contains a grain elevator, an area where four large above-ground fuel storage tanks (ASTs) formerly stood, and a fuel-loading rack and pump island. In recent years, Pendleton Grain Growers has leased the southern parcel to store grain.

BEC commissioned a Phase I (non-sampling) assessment in 1993. Issues of potential concern included: asbestos-containing materials (ACM) in silos; USTs; oil-contaminated soil; buried drums; improperly stored containers of oil and pesticides/herbicides; past fertilizer spillage; and

piles of tires and other debris. The site was found to be near two City of Helix water-supply wells, one a shallow, emergency backup well about 50 feet east of the site, the other a deep well about 1,000 feet north of the site that is the city's primary water supply. Several sampling investigations followed the Phase I, including a DEQ preliminary assessment in 1995. Key conclusions of these investigations: 1) no ACM was present in the silos; 2) neither city well appeared to be affected by site contamination; 3) south parcel soils and groundwater were contaminated with petroleum compounds (no tests were run for MTBE), but the source of groundwater contamination was unclear; 4) additional investigation was needed on both parcels.

TBA Activities

While DEQ developed a sampling plan to fill data gaps from past investigations, EPA consulted with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Oregon State Historic Preservation Office (SHPO) to determine if field work could affect important cultural resources. Initially, SHPO and CTUIR indicated that such resources could be present, but following an on-site review, CTUIR concluded that intact subsurface deposits were unlikely to be found. However, on-site structures might be eligible for listing on the National Register of Historic Places. DEQ then began field work, with instructions to contact CTUIR in the event that staff discovered human remains or artifacts during sampling activities.

In May 2003, DEQ collected 18 soil and nine groundwater samples from areas of concern. Samples were variously analyzed at EPA-affiliated laboratories for volatile and semi-volatile organic compounds (VOCs/SVOCs), total petroleum hydrocarbons, herbicides/pesticides, PCBs, and metals.

Key Findings and Next Steps

North Parcel. DEQ found three USTs on the east side of the former office building on the northern parcel, one of which contained 0.3 feet of diesel, another 0.3 feet of gasoline, and the other appearing to be empty. These USTs had neither been upgraded nor decommissioned – as required by law – and thus needed to be decommissioned prior to site redevelopment. A heating-oil UST on the west side of this building also appeared to contain residual product, which needed to be addressed. DEQ found no evidence of two additional USTs described in the 1993 Phase I report. A past employee stated that these were in fact ASTs, and DEQ recommended a geophysical investigation to resolve the issue. While there were no significant areas of soil contamination, and only low levels of pesticides and solvents in groundwater, DEQ recommended sampling the nearby emergency backup well as a precaution.

South Parcel. Gasoline-related contamination (but not MTBE) was present in groundwater, the source of which appeared to be fuel releases from the former AST area. The downgradient extent of the plume needed further delineation. Petroleum-contaminated soil, confirmed in the former AST area, needed to be cleaned up.

Conclusion. TBA results suggested the site would mesh well with DEQ's *Prospective Purchaser Agreement* program, where a future buyer would agree to take certain actions, perhaps during redevelopment, in return for state liability relief. The site appeared to present low risks to human health and the environment; further investigative/cleanup costs were expected to be moderate.

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