

Environmental Health Services Division

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Public Health
Seattle & King County



December 4, 2008

Marrell Livesay
Seattle Department of Parks and Recreation
Planning and Development Division
800 Maynard Avenue South, 3rd Floor
Seattle, WA 98134-1336
Facility Site ID # 99542617

RECEIVED

JAN 23 2009

DEPT. OF ECOLOGY

Dear Mr. Livesay:

Public Health-Seattle & King County has completed the site hazard assessment (SHA) of the Golden Gardens Park site, as required under the Model Toxics Control Act. A determination of no further action (NFA) at this site has been made by Ecology based on this SHA.

For your information, Ecology will publish the results of this, and other recently completed, SHAs in the February 19, 2009 Special Issue of the Site Register.

Ecology reserves the right to initiate further investigation at this site where new information is received indicating a potential/actual threat to human health and/or the environment through the release of hazardous substance(s).

Please contact me at (206) 263-8447 if you have any questions/comments regarding this SHA/determination of NFA.

Sincerely,

Carsten Thomsen
Health & Environmental Investigator III

CT:nm

cc: Donna Musa, Washington Department of Ecology

Site Hazard Assessment Recommendation for No Further Action

**Golden Gardens Park
Golden Gardens Dr. NW
Seattle, King County, WA 98117
Facility Site ID # 99542617
November 19, 2008**

Background

The Golden Gardens Park property was formally a bulk fuel terminal that was in use during the 1930's. During the summer of 1996, contractors discovered contaminated soil while excavating the area to construct a wetlands project. Soil samples that were collected and analyzed were found to be contaminated above the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels. During the fall of 1996, part of the property was remediated. In September of 1999, another site investigation was performed to check for further site contamination. Results of that investigation also showed contamination levels above the MTCA Method A cleanup levels.

Site Description

The Golden Gardens Park property is long, narrow and approximately sixty-two acres in size. The entire site is bordered by a hillside to the north, Puget Sound to the west, large parking areas to the south and railroad track to the east. The surrounding area consists of a mix of commercial and residential properties. The entire area is served by municipal water and sewer systems. There is no groundwater used for drinking water within a two-mile radius of the site.

Golden Gardens Park is a City of Seattle public park operated by the Seattle Department of Parks and Recreation (Parks Department). The park contains a large clubhouse building, picnic areas, parking lots, large lawn areas, beaches and a wetlands area. The park is used by the public year-round with especially heavy use during the summer months.

During the early 1930's the area was used as a bulk fuel terminal. Fuel for the site was stored in an above-ground storage tank that was 100-feet in diameter and had an estimated volume of 500,000 to 1,000,000 gallons. There was also a loading pier that extended from the tank into Puget Sound. Sometime around 1934 the tank and pier were removed from the site. During the 1940's the property was designated as a park. In 1996, the Parks Department undertook a wetlands restoration project which removed a parking area and installed ponds, streams and vegetation.

Previous Investigations

There have been three separate environmental investigations on the Golden Gardens Park property. All three of the investigations were conducted by HWA GeoSciences Inc. (HWA) for the Parks Department. In March of 1995, HWA conducted a ground water study to determine the ground water characteristics of the site. This included measuring ground water levels, conductivity, pH and temperature.

During July 1996, contractors working on a wetlands restoration project discovered soil contamination in the project area. HWA conducted a site investigation which included collecting soil samples for analysis. Soil samples were tested for Total Petroleum Hydrocarbons Diesel Extended (TPH-Dx), Semi-volatile Organic Compounds (SVOC's), Volatile Organic Compounds (VOC's), pesticides and heavy metals. Test results showed that levels of TPH-Dx, SVOC's, lead and cadmium exceeded the MTCA Method A cleanup levels. At that point the Parks Department notified the Washington Department of Ecology (Ecology) concerning the site contamination at Golden Gardens Park.

The Parks Department decided to remediate the site and informed Ecology of their intention to do so. Remediation included removal of contaminated soil, modifying the design of the wetlands restoration and implementing engineering controls for water runoff. Remediation was completed during the fall of 1996.

During September of 1999, HWA performed another site investigation of the Golden Garden Park site which included the former area where the above-ground storage tank was located. The investigation included taking sixteen soil samples and eight groundwater samples. Each soil sample was analyzed for Northwest Total Petroleum Hydrocarbons Diesel Extended (NWTPH-Dx). Three of the soil samples were also analyzed for VOC's, SVOC's and total metals. All of the groundwater samples were analyzed for VOC's, SVOC's and total metals.

None of the soil or water samples that were taken on the site contained any contamination levels that were above the MTCA Method A cleanup levels except for three of the soil samples. Those samples contained heavy oil. At the time the samples were taken the MTCA Method A cleanup level for heavy oil was 200 ppm. The contamination levels are now well below the current Model Toxics Control Act (MTCA) Method A cleanup level of 2,000 ppm. The following chart shows the highest level of heavy oil contamination from those tests.

	Heavy Oil Results
Sample SS-6 (ppm)	320
Sample SS-2 (ppm)	480
Current MTCA Method A Cleanup Level (ppm)	2000

The Parks Department then forwarded the results of the site investigation to Ecology. After reviewing the Parks Department information Ecology felt that further investigation of the site was necessary. On March 3, 2000, the Golden Gardens Park property was added to Ecology's Integrated Site Information System (ISIS) list of confirmed and suspected contaminated sites to await further assessment under MTCA.

Site Hazard Assessment

Carsten Thomsen of Public Health-Seattle & King County (PHSKC) conducted an SHA visit to the Golden Gardens Park property on April 10, 2008. The site was divided into parking, grass, beach and wetland areas. No visible contamination was encountered during the SHA visit. PHSKC reviewed related information and reports provided by the Parks Department. PHSKC also talked with Mr. Marrell Livesay of the Parks Department about the different site investigations that have happened at Golden Gardens Park.

Since large amounts of data exist from the multiple site investigations that have taken place on the Golden Gardens Park property it was decided that no further testing of the site was needed to complete this assessment report.

Pathway Information

The **Soils** at the site were possibly impacted by petroleum contamination. The soils on the property have been analyzed and petroleum concentrations were found to be below the current MTCA Method A cleanup levels.

The **Surface Water Pathway** is not likely impacted at this site due to documented low concentration levels of petroleum in the soil.

The **Air Pathway** is not likely impacted at this site due to documented low concentration levels of petroleum in the soil.

Groundwater at the site is not used for drinking water within a two-mile radius of the site.

Sediments are not likely impacted at this site due to documented low concentration levels of petroleum in the soil and the location of the petroleum contamination being several hundred feet away from possible sediment areas following the hydrologic gradient of the site.

Conclusions/Recommendation

On the basis of this SHA, the PHSKC's Environmental Health Division recommends that this site receive no further action under MTCA, based on WAC 173-340-310(5)(d)(ii): there was no documented release of a hazardous substance above the current MTCA Method A cleanup levels.

Reference

1. Washington Ranking Method Toxicological Database.
2. Site Investigation Report, Golden Gardens Park, Seattle, WA, HWA GeoSciences Inc., Seattle, WA, December 5, 2000.
3. Site Hazard Assessment, Public Health Seattle and King County, April, 2008.
4. Precipitation Theme, King County GIS, Seattle, Washington, February 2002.
5. Isopluvials of 2-Year, 24 Hour Precipitation, NOAA atlas 2, Vol. IX.
6. Washington State Department of Health, Division of Drinking Water Website.
7. Washington State Water Use Data.
8. Sensitive Areas Themes, King County GIS, Seattle, Washington, February 2002.
9. Census Themes, King County GIS, Seattle, Washington, February 2002.