PERIODIC REVIEW

Seattle School District John Stanford Center, aka Seattle Schools Support Center Facility Site ID#: 82825487

2445 3rd Avenue South, and
230 South Lander,
Seattle, Washington

Northwest Region Office

TOXICS CLEANUP PROGRAM

April 2011

1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup Site conditions and monitoring data to ensure that human health and the environment are being protected at the Seattle School District John Stanford Center (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program. The cleanup actions resulted in concentrations of petroleum hydrocarbons, specifically carcinogenic polyaromatic hydrocarbons (cPAHs) remaining at the Site which exceed MTCA cleanup levels. The MTCA cleanup levels for soil are established under WAC 173-340-740. The MTCA cleanup levels for groundwater are established under WAC 173-340-720. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a Site every five years:

(a) Whenever the department conducts a cleanup action
(b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
(c) Or, as resources permit, whenever the department issues a no further action opinion, and one of the following conditions exists:

1. Institutional controls or financial assurance are required as part of the cleanup;
2. Where the cleanup level is based on a practical quantitation limit; or
3. Where, in the department's judgment, modifications to the default equations or assumptions using Site-specific information would significantly increase the concentration of hazardous substances remaining at the Site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

(a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site;
(b) New scientific information for individual hazardous substances of mixtures present at the Site;
(c) New applicable state and federal laws for hazardous substances present at the Site;
(d) Current and projected Site use;
(e) Availability and practicability of higher preference technologies; and
(f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The Department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site Description and History

The property consists of an approximately 12-acre parcel located at 2445 3rd Avenue South, and 230 South Lander, Seattle, Washington. 241 South Lander also appears in some reports. The Seattle School District uses the facility as their Administration Center, also referred to as Support Center in some reports. The property was acquired from the United States Postal Service (USPS). The buildings formerly used as the USPS General Mail Facility (GMF) and Vehicle Maintenance Facility (VMF) are situated on the southern half of the property, and the northern portion is primarily an asphalt paved parking area. The property is located at the intersection of 3rd Avenue South and South Lander Street and is bounded to the west by Burlington Northern Railroad right-of-way and to the east by 3rd Ave. The GMF building is a three-story masonry structure occupying approximately 350,000 square feet. The VMF building is located north of the GMF building and consists of a 1-story building abutting 3rd S. and S. Stacy, and contains vehicle service bays and an office. A portion of the property at the western boundary was acquired by Burlington Northern Sante Fe/Sound Transit Commuter Rail for increasing track clearance in 2004.

The area appears to be underlain by fill and compacted material consisting of construction debris, bricks, wood pieces, and other debris observed in the soil during subsurface drilling and sampling activities. Groundwater in the area is approximately 8 feet below ground surface (bgs). The Site and surrounding topography is flat. There are no surface waters immediately adjacent to the Site. The Port of Seattle and Elliott Bay are approximately 0.5 miles west of the Site. The Duwamish River is approximately 1 mile southwest of the Site.

2.2 Site Investigations and Sample Results

Dames & Moore (D&M) was retained by Lowe Enterprises Northwest, Inc. (Lowe) to conduct a soil and groundwater investigation at the GMF/VMF property. Based on a review of the Phase I Environmental Site Assessment conducted by ICF Kaiser Engineers, Inc. (ICFK, 1997) and a Site visit on May 5, 1998, which generally excluded the interior of the GMF and VMF offices, D&M determined areas of potential environmental concern were identified at the property as well as off-Site. Five on-Site areas of environmental concern at the property were identified:

- Four former underground storage tanks (USTs) containing gasoline and diesel (Area 1);
- Hydraulic lifts/hoists, waste oil floor drain, former 500 gallon waste oil UST and former oil/water separators (Area 2);
- Former culvert remediation area (Area 3);
- Oil/water separators and paint booth (Area 4), not removed as of Site visit;
- 6000 gallon heating oil/former 8,000 gallon heating fuel USTs (Area 5), not removed as of 1998 Site visit.

The UST capacities of the four former USTs in Area 1 and contents were as follows:

- 8,000 gallon and 12,000 diesel;
- Two 8,000 gallon gasoline.

The 8,000 gallon gasoline tank (Tank 3) was found to be leaking in December 1983 and was taken out of service. The tank was removed in 1988 along with the other gasoline UST (Tank 2). No closure report for these tanks was available (ICFK, 1997). The 8,000 gallon diesel tank (Tank 1) was found to be leaking in January 1984, was taken out of service and was removed with the gasoline USTs in 1988 (Pemco, 1995). The 12,000 gallon diesel UST was installed in 1988 in the resulting UST excavation (Tank 4) along with four tank observation wells equipped with leak detection monitors. This tank was subsequently taken out of service in 1989 and removed in 1994 (Pemco, 1995).

Borings conducted within and around the perimeter of Area 1 included: B-10, B-18, B-20, B-21, B-23 and B-24. Elevated levels of lube oil range and diesel range total petroleum hydrocarbons (TPH) exceeding the MTCA cleanup level were only detected on the north and west sides of Area 1. Lube oil range TPH was detected in borings B-10, B-20 and B-21 at concentrations of 402 milligrams per kilogram (mg/kg), 2,070 mg/kg and 7,820 mg/kg, respectively. Diesel range TPH was also detected at B-21 at a concentration of 2,670 mg/kg. Gasoline range TPH was only detected in boring B-21 at a concentration of 6.34 mg/kg well below the MTCA method A cleanup level of 100 mg/kg.

A former 550 gallon waste oil UST (Tank 5) was located south of the VMF and two hydraulic hoists are located in the service bay adjacent to the former tank (Area 2). Two former oil/water separators were located west of the former tank. The waste oil tank was removed in 1994 and a release to the soil was noted (Pemco, 1994). Elevated levels of TPH and benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in the soil. Multiple stages of soil excavation were conducted and during the soil excavation program, the two oil/water separators were removed. The two hydraulic hoists within the VMF building had pits which are approximately 8 feet deep. The lifts reportedly required approximately 5 gallons of makeup oil per week during the last years of their operations between 1989 to 1991 (ICFK, 1997). The waste oil tank floor drain was situated between the two lifts. Three borings completed between the two lifts detected levels of diesel and heavy oil range TPH ranging from 100 mg/kg to 5,800 mg/kg at 6 to 8 feet bgs. Based on these findings a release of hydraulic oil from the lift systems had occurred.

Borings performed in Area 2 included B-1, B-8, B-9, B-10, B-11, B-l2 and B-13. Elevated levels of heavy oil range TPH exceeding the MTCA cleanup level of 200 mg/kg were detected east (B-11 at 943 mg/kg) and north (B-1 at 361 mg/kg) of the hydraulic lifts. Lube oil range TPH was detected in borings B-12 (297 mg/kg) and B-10 (402 mg/kg) exceeding the MTCA method A cleanup level. Polychlorinated biphenyl (PCB, Arochlor 1260) was detected in boring B-1 (0.107 mg/kg) well below the MTCA method A cleanup level of 1.0 mg/kg. Volatile organic compounds (VOCs) were not detected in any of the soil samples. Selected metals (e.g., arsenic, barium, chromium, lead, mercury, and silver) were detected in the soil samples at concentrations well below the MTCA method A cleanup levels.

During a 1993 rail line upgrade, an approximately 54 foot long 8-inch diameter steel culvert pipe was encountered at an approximate depth of 5 feet bgs (Area 3). The pipe contained a black sludge which was found to contain elevated levels of petroleum hydrocarbons and did not detect PCBs. Soil samples collected from the excavation adjacent to the pipe detected elevated levels TPH as high as 340 mg/kg and PCB levels of 634 micrograms per kilogram (ug/kg). Borings performed in Area 3 included: B-3; B-4; B-5; and B-6. Elevated levels of heavy oil range TPH exceeding the MTCA method A cleanup level of 200 mg/kg were detected east (B-5 at 299 mg/kg), north (B-3 at 300 mg/kg) and south (B-6 at 250 mg/kg) of the culvert excavation area. Arochlor 1260 was detected in three of the four samples and ranged in concentration from 0.0581 mg/kg (B-3) to 0.161 mg/kg (B-5), which is well below the MTCA method A cleanup level of 1.0 mg/kg. VOCs were not detected in any of the samples with the exception of methylene chloride which was detected in sample B-5-6. However, the laboratory reported that this compound is a suspected laboratory contaminant. Polyaromatic hydrocarbons (PAHs) were detected in all four soil samples at levels well below the applicable MTCA method A cleanup levels. Total carcinogenic PAH (cPAH) concentrations ranged from not detected (B-4) to 0.2546 mg/kg (B-5), which is well below the MTCA method A cleanup level of 1.0 mg/kg. Selected metals (e g, arsenic, barium, chromium, lead and mercury) were detected in the soil samples at concentrations well below the MTCA method A cleanup levels.

A paint booth was located on the western side of the VMF building and to the south is an existing oil/water separator (Area 4). The separator was reportedly installed in 1994 to replace the two separators removed during the waste oil UST removal (ICFK, 1997). The location of the oil/water separator indicates that it likely received discharges from the paint booth and vehicle washing bay floor drains located within the VMF. Based on the types of operations occurring in this area, there was a potential that the soil and groundwater quality could have been affected by releases from the drains and separator. Borings performed in Area 4 included: B-2; B-7; B-14 and B-15. Elevated levels of heavy oil range TPH exceeding the MTCA method A cleanup level of 200 mg/kg were only detected west (B-2 at 251 mg/kg) of the paint booth. VOCs were not detected in any of the soil samples.

The 6,000 gallon UST was located on the west side of the GMF building (Area 5). This UST was installed in 1991 during the removal of an 8,000 gallon heating fuel UST. Petroleum affected soils were noted. Borings performed in Area 5 included B-16 and B-17. Lube oil range TPH concentration at B-17 (707 mg/kg) exceed the MTCA method A cleanup of 200 mg/kg. The soil samples from B-16 were not analyzed as the tank pea gravel backfill was encountered and no indication of contamination as evident in the gravel samples.

2.3 Cleanup Actions

Monitoring wells and a groundwater recovery trench were installed in Area 1 in 1987 (Sverdrup, 1987). The groundwater recovery system was installed to comply with the Ecology request to remove free petroleum product from the groundwater (Ecology, 1988). A 4-inch layer of free product was measured in MW-2A in May 1987. The recovery system began operation in June 1987 and operated at approximately 10 to 15 gallons per minute (gpm) and recovered

approximately 0.5 to 3 gallons of product per day during the initial months of operation (Sverdrup, 1987). The system operated until the end of January 1988. Recovered product (gasoline and diesel mixture) was contained in an oil/water separator tank and the groundwater was treated with granular activated carbon (GAC) and then discharged to the local sanitary sewer (Metropolitan Sewerage System [Metro]). The groundwater treatment system was located east of Area 1. A total of approximately, 2,300 gallons of product was reportedly recovered (D&M, 1997). The system operated for approximately seven months and ceased operating in January 1988 under an agreement with Ecology to run the system until the free product layer was < 1/8 inch (Ecology, 1988).

Groundwater monitoring conducted in Area 1 had detected elevated levels of BTEX. Benzene was detected at MW-2A in 1994 at a concentration of 160 ug/l which exceed the MTCA method A cleanup levels of 5 ug/l. Additional sampling was conducted in 1996 (ICFK, 1997). Based on the findings it appeared that residual levels of diesel and lube oil range petroleum hydrocarbons existed in the soils west and north of the former UST locations. The petroleum contamination existed in the zone of groundwater fluctuation (approximately 4 to 8 feet bgs) and likely represented the former free product (diesel fuel) smear zone. Free product recovery was successfully conducted in this area (ICFK, 1997). However, borings B-20 and B-21 are downgradient of the UST area and the levels of petroleum hydrocarbon observed represented residual contamination which was not recoverable by the groundwater pump and treatment system (recovery trench) which operated in the area.

The soils boring results confirmed that elevated levels of heavy fuel and lube oil range TPH was present in the hydraulic lift area (Area 2) exceeding MTCA cleanup levels. Previous soil boring conducted adjacent to the waste oil drain between the hoists detected heavy oil TPH concentrations exceeding the MTCA cleanup levels from 6 to 8 feet bgs. The contamination appeared to be associated with leakage from the two hoist systems and possibly releases from the waste oil drain which was connected to the former waste oil UST. The soil contamination appeared to exist at depths of approximately 5 to 8 feet bgs.

A portion of the culvert in Area 3 was removed in 1994, and soils were excavated between 8 to 10 feet bgs. The excavation was terminated to the north due to an existing rail line and to the south due to the GMF building. During the excavation of the affected soils, miscellaneous "industrial" debris (e.g., metal parts and a crushed drum) was encountered (ICFK, 1997). Post excavation sampling indicated that some residual soil contamination (heavy oil range TPH at 730 mg/kg) was left in place. Groundwater was reportedly not encountered in the excavation (Weston, 1994). Sampling conducted in this area indicates that some residual soil contamination consisting of heavy oil range TPH exists on the north, east, and south sides of the culvert excavation area. The contamination appears to exist between approximately 4 to 7.5 feet bgs. An estimated length of 20 feet of culvert remains (ICFK, 1997).

Based on the results of the sampling in the existing Oil/Water Separator and Paint Booth (Area 4), significant soil contamination was not evident adjacent to the floor drain in the paint booth or the oil water separator. Elevated levels of heavy oil range TPH were detected west of the paint

booth at B-2. This contamination appears to be associated with the material identified in the culvert area.

Approximately 137 cubic yards of soils were removed from Area 5 during the 1991 UST activity, and sent off-Site for disposal (Earth Consultants, 1991). Groundwater was encountered in the excavation and free product was noted on the water table within the excavation. Approximately 2,500 gallons of groundwater was pumped from the excavation. A groundwater sample collected following the groundwater removal did not detect diesel range TPH. Post excavation soil samples did not detect TPH in these samples; however, in one sample diesel range TPH was detected at a concentration of 160 mg/kg. Based on the results of the sampling, no further investigation was recommended (Earth Consultants, 1991). Since affected groundwater was detected during the tank removal, there was a potential that residual levels of petroleum hydrocarbons were present in this area. The soil sampling in Area 5 indicated that residual levels of lube oil range TPH exist along the west side of the UST excavation. Based on the results of the post excavation sampling previously conducted, petroleum affected soils appear to have been adequately removed (Earth Consultants, 1991). It was D&M's opinion that the contamination was associated with the former UST release rather than a release from the in service UST, as no contamination was detected in the pea gravel backfill.

Ecology issued a 'No Further Action' (NFA) letter on March 8, 1999, and a revised letter April 5, 1999, contingent on the restrictive covenant which was recorded with the county. The NFA letter also required annual groundwater monitoring with re-evaluations.

Groundwater monitoring was conducted at the Seattle Schools Support Center. The work was performed in accordance with URS Corporation (URS) proposal dated August 3, 2000, and the Seattle Public Schools Services Contract executed February 5, 2001. The purpose of the groundwater monitoring was to comply with the requirements outlined in the Ecology NFA letter of April 5, 1999. The letter specifies that the groundwater in the former hydraulic lift area be sampled annually and analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs) until cPAH concentrations in the selected wells fall below the MTCA Method B cleanup levels for four consecutive sampling events. URS collected groundwater samples from monitoring wells; the last report in Ecology files was regarding the sampling of MW-3 and MW-7 on May 5, 2006. As noted during the 2003 sampling event, monitoring wells MW-6A, MW-8, and MW-9 were destroyed during construction activities at the Site. The casing for well MW-3 was also damaged during construction activities and as a result, water level measurements at MW-3 may not have been directly comparable with previous readings.

The cPAHs benzo(aanthracene, benzo(b)fluoranthene, benzo(kfluoranthene, benzo(a)pyrene, chrysene, and indeno(l,2,3-cd) pyrene were detected in well MW-7 at concentrations above the MTCA Method B cleanup level for cPAHs (0.012 ug/L). The concentrations of benzo (a) anthracene, benzo (k) fluoranthene and chrysene were also detected in well MW-3 above the MTCA Method B cleanup level. The cPAH concentrations in well MW-3 were consistently lower than those reported during the 2005 sampling event. Concentrations of cPAHs detected in well MW-7 have slightly increased from previous sampling round. MW-3 is located in close

proximity to the building and the detection of cPAHs is possibly associated with the treated pile foundation that supports the building.

Groundwater monitoring apparently ceased without appropriate acknowledgment from Ecology. The wells except for one now appear to be covered or removed, with no record of proper closure.

2.4 Cleanup Levels

MTCA cleanup standards were used to set cleanup levels at the points of compliance, and to evaluate protectiveness within areas that did not meet conditions necessary for a standard point of compliance.

ICFK completed sample analysis and regulatory calculations to determine the cleanup levels and remedial approach for soil and groundwater contamination at the USPS VMF and the GMF. Ecology requested that the USPS determine applicable regulatory cleanup levels using the format presented in the "Interim Interpretive and Policy Statement for Cleanup of TPH, Ecology Publications January 1997. This document served as principal guidance, supplemented by the MTCA to determine Method C cleanup levels. The assumptions and Site-specific characteristics were used to determine the cleanup requirements for the GMF. The interim policy addresses two potential pathways for exposure, soil-to-groundwater and direct human contact. These pathways were considered by calculating the toxicity and exposure risks associated with the petroleum constituents present at the GMF. The contaminant of concern is heavy oil that was used in the hoist pit at the GMF. Soil and groundwater results were evaluated to calculate the cleanup levels as defined under the MTCA interim policy for petroleum contaminated Sites.

ICFK completed a Supplemental Site Sampling Report for the hoist pit area in October 1998. Soil and groundwater samples collected from the hoist pit area were analyzed for TPH and PAHs. Analytical results of the samples collected during the supplemental sampling activity indicated the presence of heavy oils in concentrations exceeding MTCA Method A cleanup levels. Since the Site is located in an industrial area, further sampling, analysis, and evaluation was conducted to compare soil and groundwater conditions to MTCA Method C cleanup levels, as prescribed under the Interim Interpretive and Policy Statement for TPH Cleanup (Ecology, 1997). Development of alternate cleanup standards is allowed under MTCA Method B or Method C. These alternate cleanup levels are allowed for industrial areas where conditions are complex due to the presence of multiple contaminants. Method C criteria are used when it is not technically possible to achieve Method A or B cleanup levels. Method C cleanup levels must be protective of human health with a combined hazard coefficient not greater than 1 and a carcinogenic risk factor not greater than 1 in 100,000. In order to complete the Method C cleanup calculations for interim TPH, analytical results for the GMF supplemental sampling event were utilized to determine a range of soil cleanup standards that would be acceptable to Ecology. Samples were analyzed to identify the specific fractions of petroleum constituents present and to determine the presence of PAHs in order to evaluate the toxicity of the hydrocarbon fractions and polyaromatic hydrocarbons. Petroleum fractions are reported in aliphatic and aromatic constituents, which were used to calculate the hazard quotient in accordance with Table 3 of the

Interim Policy (Ecology, 1997). PAHs in both soil and groundwater were also analyzed and evaluated in terms of the cancer risk.

Soil and groundwater samples were collected from several locations in the vicinity of the hoist pit. Heavy oil and PAHs above quantitative detection limits were reported in soil samples. The soil sample collected in borehole SP-3 at 7.5 feet bgs contained the highest concentration of petroleum in the vicinity of the hoist pits. Groundwater collected from sample location SP-12 had the highest levels of petroleum hydrocarbons and SP-15 had the highest reported concentrations of PAHs. The analytical results for the soil and groundwater samples were used to complete the calculation of non-carcinogenic toxicity and the carcinogenic risk.

To evaluate the toxicity of the constituents present in the petroleum release, the samples were analyzed for carcinogenic PAHs that are present in petroleum products. The petroleum product found near the hoist pits is heavy oil. Previous sample results indicated the absence of lighter constituents, such as BTEX compounds.

The Site is completely covered with structures and buildings, with an asphalt cover over all parking and driveway areas. The potential for exposure to odors or vapors from the release of the heavy petroleum constituents is severely limited. Excavating or other subsurface intrusive activities would be necessary for potential on-Site exposure to petroleum contaminants. Due to the impervious surfaces present at the Site, the potential for exposure to petroleum vapors is extremely low and considered negligible from an exposure pathway perspective.

ICFK used the data acquired from multiple sampling events (D&M, July 1998; ICFK, September 1998; and ICFK, November 1998) to determine the applicable cleanup levels for soil. The Method C based cleanup levels are defined for the media at the Site by calculating two estimates of toxic effects to exposure. The first is the Hazard Quotient (HQ) for non-carcinogenic toxicity. The second is the risk related to exposure to carcinogenic substances. HQs for the non-carcinogenic aliphatic and aromatic petroleum fractions were calculated using the analytical results for representative concentrations of TPH in soil.

The analytical results from the groundwater sampling in 1998 indicate that heavy petroleum hydrocarbons may be associated with the soil adjacent to the hydraulic hoist pits at the VMF Heavy oil concentrations in groundwater exceed Method A cleanup levels for TPH and Method C cleanup levels for PAHs. Cleanup levels for groundwater are established by the highest beneficial use and the potential for human exposure that may be expected given the Site usage. The Site and surrounding areas are relatively flat with little or no gradient present. The Port of Seattle and Puget Sound are approximately 0.5 miles west of the Site. A railroad yard and the Port of Seattle loading facilities are located between the Site and Puget Sound. There is little likelihood that any discharge or migration from the Site would impact any surface waters.

Heavy oil has been detected under the VMF. The heavy petroleum hydrocarbons may be difficult to remove and are not likely to be easily oxidized or biodegraded. The hydrocarbons in the soil appear to be localized to the hoist pit area under the VMF. The source of the oil, the waste oil tank, has been removed, and the hoists have been taken out of service. ICFK suggested that NFA

was a practical response in the context of the past actions completed at the Site and the larger context of the surrounding area.

2.5 Restrictive Covenant

Based on the Site use, surface cover and cleanup levels, it was determined that the Site was eligible for a NFA determination if a Restrictive Covenant was recorded for the property. A Restrictive Covenant was recorded for the Site in 1999 which imposed the following limitations:

Section 1. The Property shall be used for commercial purposes including office and administrative uses, or industrial purposes only. It shall not be used for residential uses as defined in Seattle Municipal Code section 23.84.032 as of the date of this Restrictive Covenant No ground water may be taken for any use from the Property.
Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substances that remain in the Restricted Area or groundwater of the Property as part of the Remedial Action, or that may create a new exposure pathway for such - hazardous substances, is prohibited without prior written approval from Ecology.
Section 4. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action as set forth in the No Further Action Letter.
Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.
Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.
Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Action.
Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

The Restrictive Covenant is available as Appendix 6.4.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants at the Site without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the remedy.

Based upon the Site visit conducted on May 4, 2011, the buildings and asphalt cover (remedy) at the Site continue to eliminate exposure to contaminated soils by ingestion and contact. The asphalt appears in satisfactory condition except for damage where the former monitoring wells were located. That damage should be repaired, but otherwise no repair, maintenance, or contingency actions have been required. The Site is still operating as a Seattle School District Administration and Support Center. A photo log is available as Appendix 6.5.

Soils with TPH and cPAH concentrations higher than MTCA cleanup levels are still present at the Site. However, the remedy prevents human exposure to this contamination by ingestion and direct contact with soils. Groundwater may still be affecting the environment. The Restrictive Covenant for the property will ensure that the contamination remaining is contained and controlled.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new scientific information for the contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the Site was governed by Chapter 173-340 WAC (1996 ed.). WAC 173-340-702(12) (c) [2001 ed.] provides that,

"A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment."

Although cleanup levels changed for petroleum hydrocarbon compounds as a result of modifications to MTCA in 2001, contamination remains at the Site above the new MTCA Method A and B cleanup levels. Even so, the cleanup action is still protective of human health

and the environment. A table comparing MTCA cleanup levels from 1991 to 2001 is available below.

Analyte	1991 MTCA Method A Soil Cleanup Level (ppm)	2001 MTCA Method A Soil Cleanup Level (ppm)	1991 MTCA Method A Groundwater Cleanup level (ppb)	2001 MTCA Method A Groundwater Cleanup Level (ppb)
Cadmium	2	2	5	5
Lead	250	250	5	15
TPH	NL	NL	1000	NL
TPH-Gas	100	100/30	NL	1000/800
TPH-Diesel	200	2000	NL	500
TPH-Oil	200	2000	NL	500

NL = None listed

3.4 Current and projected Site use

The Site is currently used for commercial and industrial purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below selected Site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- The cleanup actions completed at the Site appear to be protective of human health and the environment.

- Soils cleanup levels have not been met at the standard point of compliance for the Site; however, the cleanup action for soil has been determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, and the requirements for containment technologies are being met; however, the condition of the groundwater may not comply with cleanup standards, and groundwater monitoring ceased before compliance could be determined, in violation of requirements in the NFA letter and restrictions in the covenant.

- The Restrictive Covenant for the property is in place and continues to be effective in protecting public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant continue to be met. No additional cleanup actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the remedy is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

1. ICF Kaiser, 1999, Washington State Model Toxics Control Act, Method C Calculations for the General Mail Facility, Seattle, Washington, 6 pp, letter report dated January 21, 1999.

2. ICF Kaiser, 1998, Supplemental Soil and Groundwater Sampling at General Mail Facility, Seattle, Washington, 10 pp., October 5, 1998.

3. Dames & Moore, 1998, Soil and Groundwater Investigation at USPS General Mail Facility, Seattle, Washington, 16 pp., July 27, 1998.

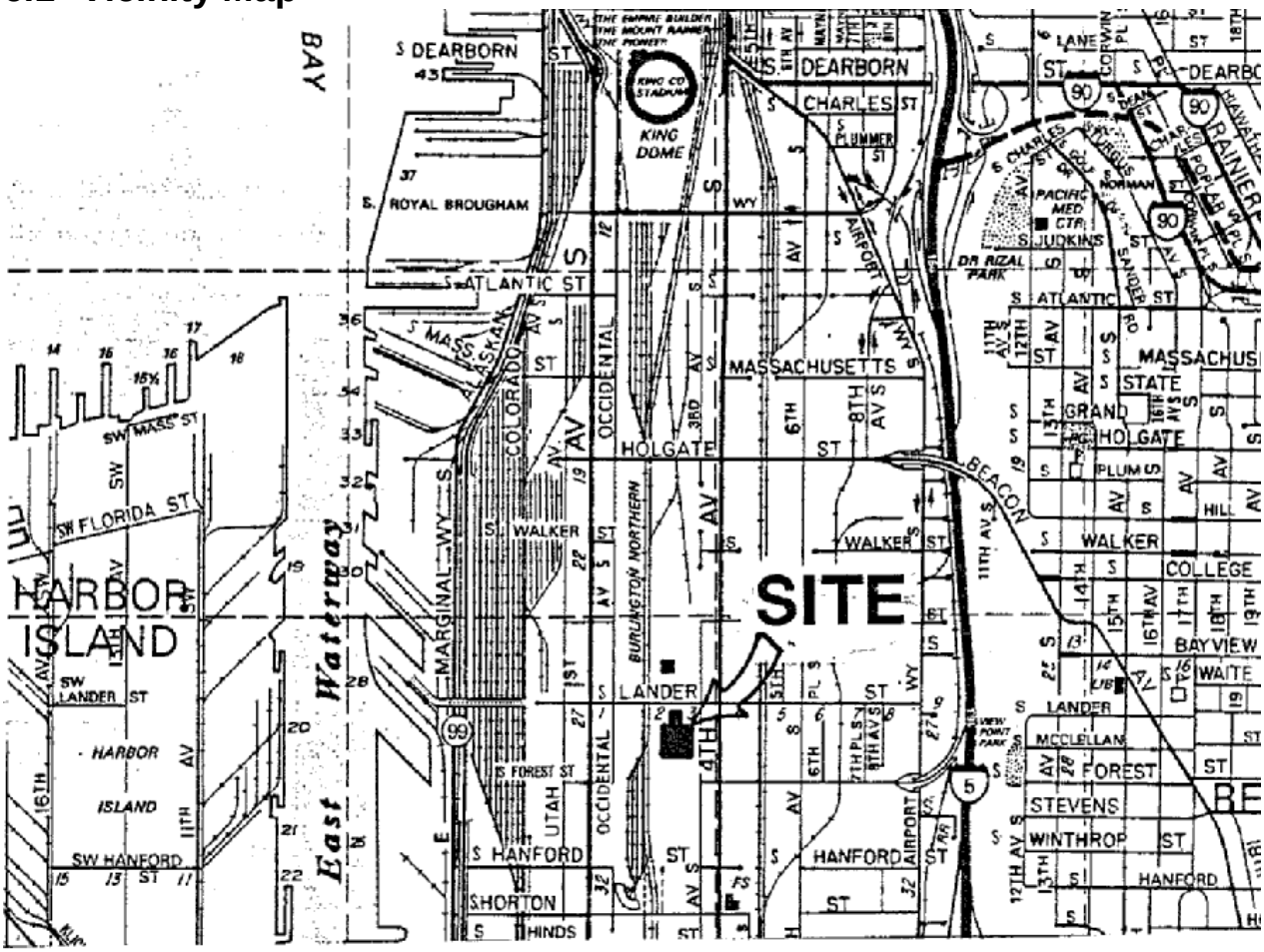
4. ICF Kaiser, 1997, Phase I Environmental Site Assessment at General Mail Facility, Seattle, Washington, 47 pp., October 15, 1997.

5. 1999 Restrictive Covenant;

6. Ecology, 2011 Site Visit.

6.0 APPENDICES

6.1 Vicinity Map



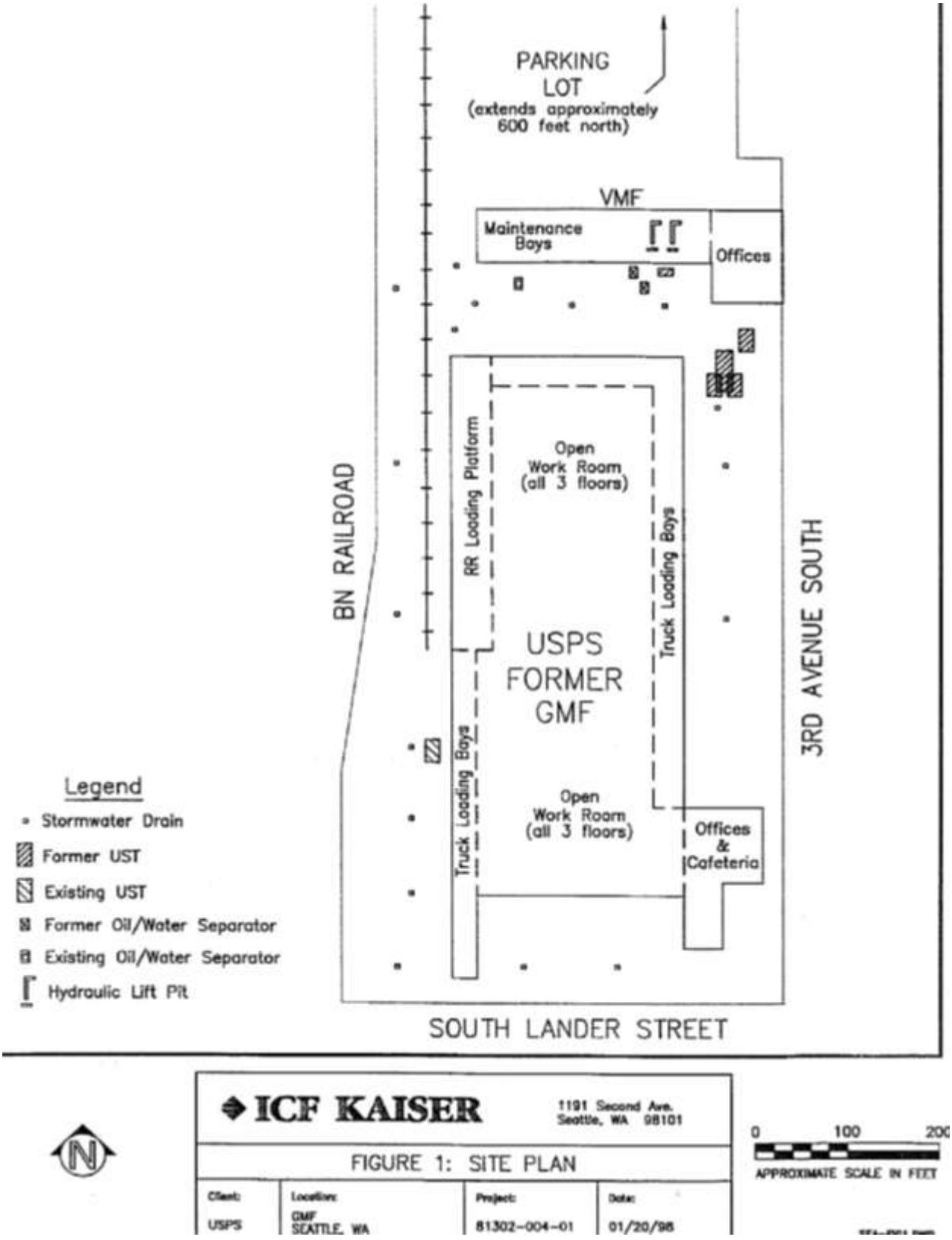
N

Reference :
King County / Map 20
By Thomas Brothers Maps
Dated 1990

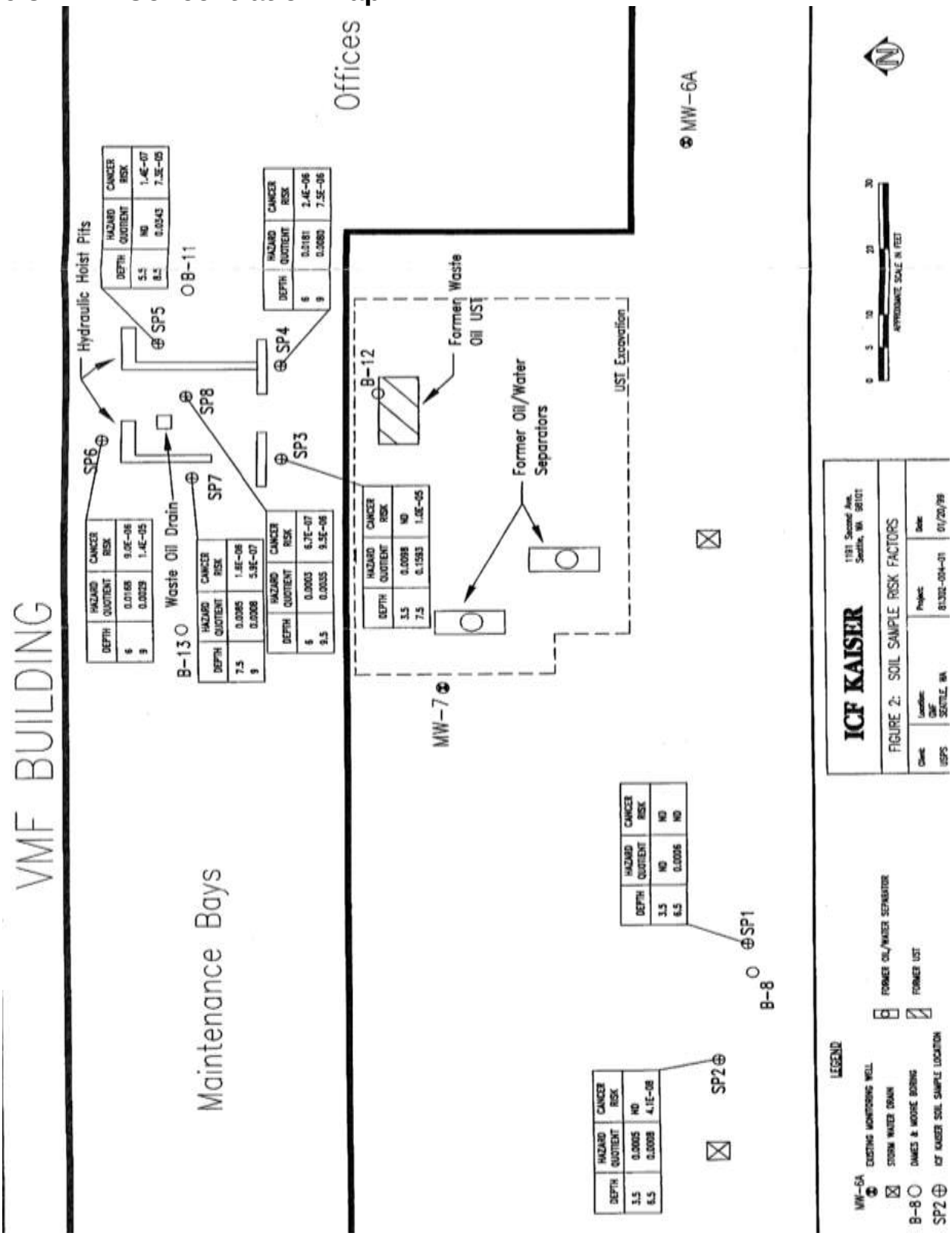
Earth Consultants Inc.
Geotechnical Engineers, Geologists & Environmental Scientists

Vicinity Map
USPS Terminal Station
Seattle, Washington

6.2 Site Plan


PARKING LOT
(extends approximately 600 feet north)
VMF
Maintenance Bays
Offices
BN RAILROAD
RR Loading Platform
Open Work Room (all 3 floors)
Truck Loading Bays
USPS FORMER GMF
Truck Loading Bays
Open Work Room (all 3 floors)
Offices & Cafeteria
3RD AVENUE SOUTH
SOUTH LANDER STREET
Legend
Stormwater Drain
Former UST
Existing UST
Former Oil/Water Separator
Existing Oil/Water Separator
Hydraulic Lift Pit
ICF KAISER
1191 Second Ave.
Seattle, WA 98101
FIGURE 1: SITE PLAN
Client: USPS
Location: GMF SEATTLE, WA
Project: 81302-004-01
Date: 01/20/98
0
100
APPROXIMATE SCALE IN FEET

6.3 TPH Concentration Map



6.4 Environmental Covenant

9904263013

9904263013 05:23:00 PM KING COUNTY RECORDS 007 THS 13.00

RETURN ADDRESS

Denver Facilities
8055 E. Tufts Ave Ste 400
Denver, CO 80237 -

Please print neatly or type information

Document Title(s)

RCOVE

Reference Numbers(s) of related documents

Additional Reference #'s on page ___

Grantor(s) (Last, First and Middle Initial)

EAGLES, DAVID

Additional grantors on page ___

Grantee(s) (Last, First and Middle Initial)

Additional grantees on page ___

Legal Description (abbreviated form: i.e. lot, block, plat or section, township, range, quarter/quarter)

Additional legal is on page ___

Assessor's Property Tax Parcel/Account Number

Additional parcel #'s on page ___

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

RESTRICTIVE COVENANT

US Postal Service General Mail Facility
2445 Third Avenue South, Seattle, Washington

This declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030 (1)(f) and WAC 173-340-440 by Mr. David Eales, Manager, Asset Management and senior officer with signature authority, United States Postal Service – Facilities, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following documents.

1. ICF Kaiser, 1999, Washington State Model Toxics Control Act, Method C Calculations for the General Mail Facility, Seattle, Washington, 6 pp., letter report dated January 21, 1999.
2. ICF Kaiser, 1998, Supplemental Soil and Groundwater Sampling at General Mail Facility, Seattle, Washington, 10 pp., October 5, 1998.
3. Dames & Moore, 1998, Report – Soil and Groundwater Investigation at USPS General Mail Facility, Seattle, Washington, 16 pp., July 27, 1998.
4. ICF Kaiser, 1997, Phase I Environmental Site Assessment at General Mail Facility, Seattle, Washington, 47 pp., October 15, 1997.

9904263013

These documents and Ecology's No Further Action Letter are on file at Ecology's Northwest Regional Office in Bellevue, Washington.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of carcinogenic polynuclear aromatic hydrocarbons (cPAHs) in and around the soils of the hydraulic lift area (Restricted Area) and throughout the groundwater, exceeding the Model Toxics Control Act Method C cleanup levels for soil and ground water established under WAC 173-340-720 and WAC 173-340-745. A map depicting the Restricted Area is attached hereto as Attachment B

The undersigned, Mr. David Eales, is a senior officer with the US Postal Service with signature authority for the real property (hereafter "Property") at 2445 Third Avenue South, also listed as 230 South Lander Street, Seattle, King County, State of Washington, parcel #766620-5235 and tax E# 0696876 dated November 18, 1982, that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant and made a part hereof by reference.

Mr. David Eales, senior officer with signature authority for the real property, makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all

current and future owners of any portion of or interest in the Property (hereafter "Owner").
Section 1. The Property shall be used for commercial purposes including office and administrative uses, or industrial purposes only. It shall not be used for residential uses as defined in Seattle Municipal Code section 23.84.032 as of the date of this Restrictive Covenant No ground water may be taken for any use from the Property.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substances that remain in the Restricted Area or groundwater of the Property as part of the Remedial Action, or that may create a new exposure pathway for such hazardous substances, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action as set forth in the No Further Action Letter.

9904263013

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

D. O Eales

David Eales, Manager, Asset Management and Senior Officer
US Postal Service – Facilities

DAVID EALES

Print Name

4/12/99

Date Signed

Subscribed and sworn to before me this 13 day of April 1999.

Signature

ALVELIN C WARREN
Name Printed or Stamped
Notary Public in and for the State of ~~Washington~~ Virginia
Residing at Arlington
My appointment expires 4/30/2002

[NOTE: The Property Owner must have this Restrictive Covenant notarized.]

9904263013

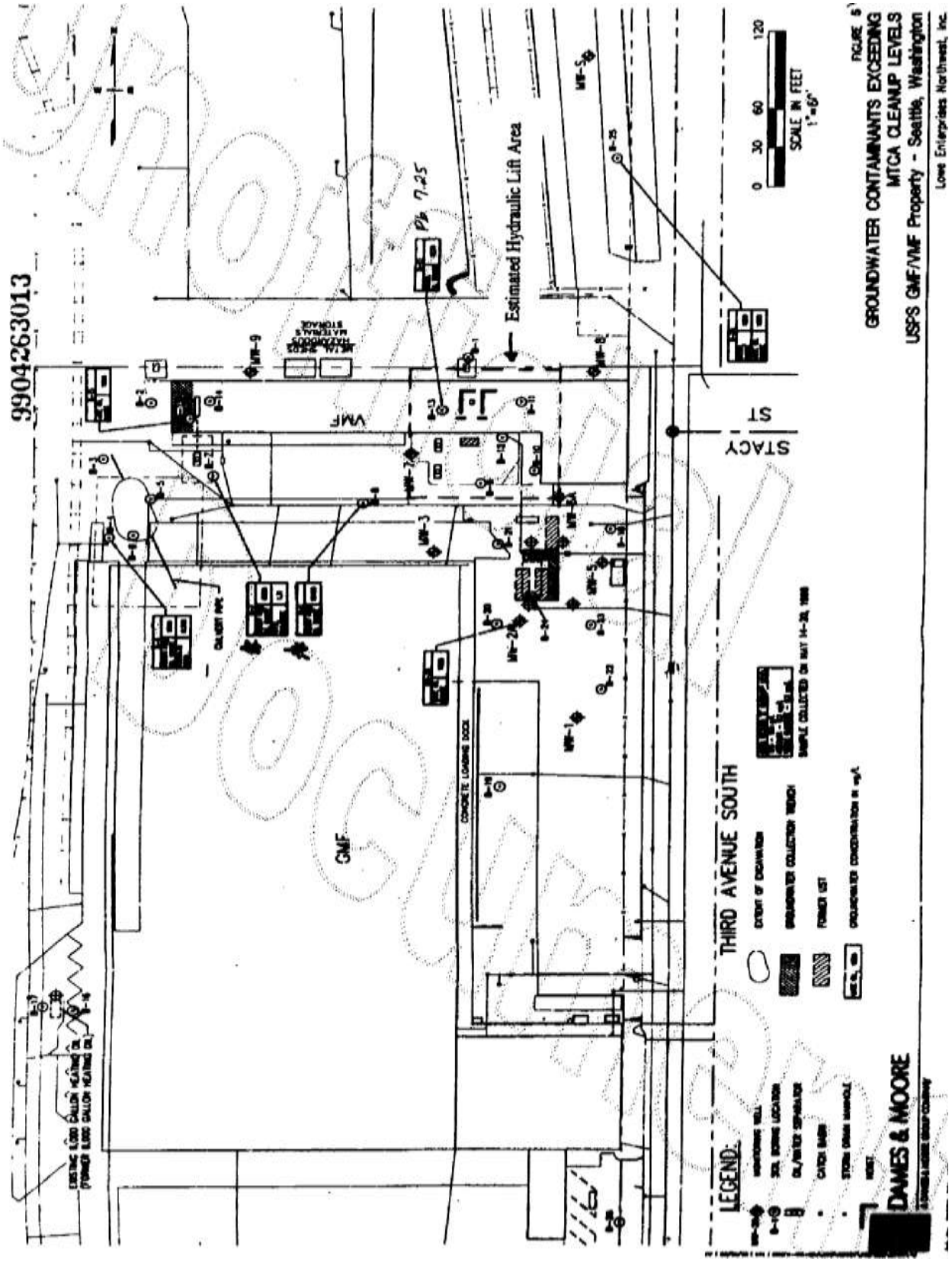
Attachment A

LEGAL DESCRIPTION

United States Postal Service, Former General Mail Facility,
2445 Third Avenue South Seattle, King County, Washington
also listed as 230 South Lander Street, Seattle, King County, Washington
Parcel # 766620-5235
Tax E# 0696876

(please attach)

9904263013


9904263013
Estimated Hydraulic Lift Area
STACY ST
THIRD AVENUE SOUTH
GMF
VMF
LEGEND:
DAMES & MOORE
GROUNDWATER CONTAMINANTS EXCEEDING MTCA CLEANUP LEVELS
USPS GMF/VMF Property - Seattle, Washington
SCALE IN FEET
0 30 60 120

Attachment B

SITE MAP

United States Postal Service, Former General Mail Facility,
2445 Third Avenue South Seattle, King County, Washington
also listed as 230 South Lander Street, Seattle, King County, Washington
from Dames & Moore 1998 figure-5.

6.5 Photo log

Photo 1: School District logo now on the former GMF Building

Photo 2: Former GMF Building, one UST removal area in foreground - from the northeast

Photo 3: Former GMF Building on the left, VMF on the right - from the east across 3rd

Photo 4: South side, east end of the former VMF Building, where excavations occurred