STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

January 24, 2017

Mr. Dennis Bortko
Yarrow Bay Yacht Basin & Marina, LLC
5207 Lake Washington Blvd NE
Kirkland WA 98003

Re: No Further Action at the following Site:

- **Name:** Yarrow Bay Marina
- **Address:** 5207 Lake Washington Blvd NE Kirkland WA
- **Facility/Site No.:** 2486
- **VCP No.:** NW1791
- **Cleanup Site No.:** 8780

Dear Mr. Bortko:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Yarrow Bay Marina facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and it's implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline & diesel range petroleum hydrocarbons, benzene, ethylbenzene, toluene, and xylenes (BTEX) in Soil and Ground Water.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel associated with this Site is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Phase I Environmental Site Assessment, dated September 7th 2006, prepared by Sound Environmental Strategies (SES).
2. Supplemental Subsurface Investigation Report, dated October 20th 2006, prepared by SES.
3. Supplemental Subsurface Investigation Report, dated November 13th 2007, prepared by SES.
4. Draft Cleanup Action Plan, dated November 8th 2007, prepared by SES.
5. Storm Water Pollution Prevention Plan, dated February 2nd 2007, prepared by SES.
6. Subsurface Investigation Report, dated August 15th 2006, prepared by SES.
7. Closure Report Yarrow Bay Marina, dated January 8, 2010, prepared by Farallon Consulting, L.L.C.
8. Ground Water Monitoring Program and Sediment Sampling Work Plan, dated October 20, 2014, prepared by Cardno ATC.
9. 2015 and 2016 Ground Water Monitoring and Sampling and Assessment of Sediment, dated April 19, 2016, prepared by ATC Group Services, L.L.C.
10. Feasibility Study with Disproportionate Cost Analysis, dated June 1, 2016, prepared by ATC Group Services, L.L.C.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at 425.649.7235 or via email NWRO_Public_Request@ecy.wa.gov.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. **Characterization of the Site.**

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A.**

Three Site assessments were conducted in 2006 and 2007 which showed that soil and ground water beneath the western portion of the facility had been impacted by petroleum hydrocarbons. Based on the distribution and characteristics of the contamination, the remedial investigations concluded that the contamination resulted from historical releases of gasoline and diesel from the underground storage tanks (USTs) and the dispensing system.

Exceedances of petroleum hydrocarbons in the ground water and soil have been delineated at the Site. Based on this data, it appears that Sediment adjacent to the bulkhead has not been impacted by the releases at the Site.

In September 2015, sediment samples from sediments at locations SD1, SD2, and SD3 representative of the corner of the bulkhead and the covered dock, north of the covered dock, and south of the covered dock. Analytical results for sediment samples did not contain detections of petroleum hydrocarbons or BTEX above Sediment Management Standards (SMS).

Sediment results are also shown on Figure 3, Ground Water and Sediment Analytical Data in the Site Diagrams.

Soil, ground water and sediment samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by Method NWTPH-Gx, TPH as diesel and heavy oil by Method NWTPH-Dx/Extended and BTEX by EPA Method 8260.

2. **Establishment of cleanup standards.**

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

The selected cleanup standard for soil and ground water at the Site is MTCA Method A for unrestricted land use.

The sediment cleanup levels are the freshwater sediment cleanup objectives in Table VI of the Sediment Management Standards (WAC 173-204).

The point of compliance for soil is defined as all soil throughout the Site. The point of compliance for ground water is defined as throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The selected cleanup action for the Site was:

- Excavation to the maximum extent practicable and off-Site disposal of all contaminated soil.
- Compliance ground water monitoring
- Institutional control for remaining soil contamination located next to the bulkhead abutting Lake Washington.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

Soil

Remedial activities were conducted in March 2008 (concurrent with redevelopment) and included removal of an 8,000-gallon gasoline UST and a 1,750-gallon diesel UST; removal of approximately 200 tons of petroleum- and cPAH-impacted soil in the vicinity of the former fuel dispenser; abandonment of former monitoring wells MW-2 through MW-7, installation of three new ground water monitoring wells (MW-8, MW-9 and MW-10); and completion of four consecutive quarters of ground water monitoring.

Petroleum-impacted soil was successfully removed during the 2008 excavation activities to the extent practicable. Due to structural tiebacks, horizontal timbers, cables, and pilings associated with the bulkhead adjacent to the fuel dispenser excavation area, soil removal was limited to depths of 5 to 6 feet below ground surface (bgs) along the bulkhead and from 8 to 9 feet bgs in other areas. Soil with residual concentrations of petroleum hydrocarbons and BTEX above MTCA Method A cleanup levels was left in place at a depth of 5 feet near the northern wall of the bulkhead (represented by confirmation soil sample EX1-SD-N), and at a depth of 6 feet at the northwest corner of

the excavation area (represented by confirmation soil sample EX1-BTM-NW). Confirmation soil sample locations are depicted in Figure 5 in the Site Diagrams. Petroleum hydrocarbons from the remaining confirmation soil samples collected from the limits of the 2008 remedial excavation (between 4 to 9 feet bgs) were either not detected above the laboratory method reporting limits or were detected below MTCA Method A cleanup levels. The excavated impacted soil was removed and replaced with imported backfill material.

Ground Water

Following the completion of the UST decommissioning and soil excavation, compliance groundwater monitoring was conducted at the Site. Ground water monitoring included the existing monitoring wells MW-1, MW-8, MW-9, and MW-10; and conducting four consecutive quarters of groundwater monitoring. The well screens were installed to intersect the top of the water-bearing zone at 5-feet bgs. All four wells were screened from 5-feet bgs to 15-feet bgs.

Groundwater monitoring events were conducted in December 2008, March 2009, June 2009, and October 2009. The laboratory analytical results of samples from monitoring wells MW-8, MW-9, and MW-10 for all four quarters did not show concentrations for any chemical of concern (COCs) above the cleanup level.

Quarterly ground water monitoring continued until March 2011. Heavy oil-range hydrocarbons were detected at concentrations greater than MTCA Method A cleanup levels in the ground water samples collected from MW-1 during the February and March 2011 events. During this time ground water samples collected from monitoring wells MW-8, MW-9, and MW-10 continued to show concentrations for Site COCs either non-detect or below cleanup levels.

In October 2014, compliance ground water monitoring resumed after Ecology's agreement with the Ground Water Monitoring Program and Sediment Sampling Work Plan, dated October 20, 2014. Ecology agreed that since monitoring wells MW-8, MW-9, and MW-10 remained in compliance during three years of compliance monitoring that only monitoring well MW-1 needed to be sampled.

Ground water samples collected in MW-1 during four consecutive quarterly ground water monitoring and sampling events, completed in June, September and December 2015, and February 2016, did not show concentrations of petroleum hydrocarbons or BTEX compounds above MTCA Method A cleanup levels. Additionally, results of the sediment sampling did not indicate petroleum hydrocarbons or BTEX compounds above the SMS cleanup levels. The ground water and sediment results are also shown on Figure 3, Ground Water and Sediment Analytical Data.

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. **Compliance with institutional controls.**

   Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional control is necessary at the Site:

   - Environmental Covenant

   To implement that control, an Environmental Covenant has been recorded on the following parcel of real property in King County:

   - 172505-9130.

   Ecology approved the recorded Covenant. A copy of the Covenant is included in **Enclosure C**.

2. **Performance of confirmational monitoring.**

   Confirmational monitoring is necessary at the Site to confirm the long-term effectiveness of the cleanup. The monitoring data will be used by Ecology during periodic reviews of post-cleanup conditions. Ecology has approved the monitoring plan you submitted. A copy of the plan is included in **Enclosure D**.

Periodic Review of Post-Cleanup Conditions

Ecology will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If Ecology determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List and Leaking Underground Storage Tank List.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (# NW1791).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 425.649.4446 or e-mail at damy461@ecy.wa.gov.

Sincerely,

Dale Myers

Dale R. Myers
Site Manager
Toxics Cleanup Program

Enclosures (3): A – Description and Diagrams of the Site
B – Legal Description
C – Environmental Covenant for Institutional Controls
D – Confirmational Monitoring Plan

cc: Nasrin Bastami, Cardno ATC
Sonia Fernandez, VCP Coordinator, Ecology
Matt Alexander, VCP Financial Manager, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined by the release of tph-g, tph-d and BTEX in soil and ground water.

Area and Property Description: The Yarrow Bay Yacht Basin and Marina is located at 5207 Lake Washington Boulevard NE in Kirkland, Washington (Property). The Property is identified as King County Tax Parcel No. 172505-9130, which is an irregular shaped lot that consists of approximately 44,797 square feet of commercial property, a portion of which extends into Lake Washington. Current Site features include a marina with boat repair and fueling facilities. The Property is located in a mixed-use commercial and residential area. Surrounding the Property is Lake Washington to the west, commercial structures to the north, the Marina Suites Property to the east, beyond which is Lake Washington Boulevard NE, and residential/commercial property to the south.

Property History and Current Use:

- **Property History**

  The Property has been developed with marina facilities since at least 1936 (the earliest available historical resource). According to the Polk City directories, the site has been known as the Yarrow Bay Marina since at least 1938. Building locations and dock configurations varied throughout the years. A boat house and covered dock were constructed at the Property sometime prior to 1936. The boat house building was removed by 1946 and most of the Property had been cleared. A single family residence was reportedly constructed on the property in 1941 and burned down approximately 20 years ago (circa 1996). A two story building formerly located near the southwest corner of the Property was constructed in stages between 1956 and 1974. The current configuration of the dock began construction between 1962 and 1963, and was expanded in 1968. Between 1968 and 1974, a long, thin structure had been constructed dividing the Property from the adjacent parcel to the east. This structure was removed sometime between 1995 and 2000.

  Three USTs (two 6,000-gallon gasoline tanks and one 3,000-gallon diesel tank) were listed in tax archive records pre-dating 1972. In 1991, the three USTs were removed and replaced by an 8,000-gallon gasoline UST and a 1,750-gallon diesel UST.

  The Site was redeveloped in 2008. The two-story building formerly located near the southwest corner of the Property was removed, and the current boathouse and office building was constructed near the northeast corner of the Property. The 8,000-gallon gasoline UST, the 1,750-gallon diesel UST, and associated piping were removed and replaced with a single double-walled UST, double-walled fuel lines and fuel dispensers equipped with sumps to prevent leakage.

A release of gasoline and diesel associated with the pre-2008 fueling system was discovered during investigative activities in 2006.

- **Current Property Use and Facilities**
  The Property currently offers boat moorage, rental, sales, service and boat fueling. Current facilities include two covered dock areas along Lake Washington, a boathouse and office building near the northeast corner of the Site, and a new double-walled UST (single tank with gas and diesel chambers), new double-walled fuel lines, and fuel dispensers equipped with sumps to prevent leakage.

- **Proposed or Potential Future Property Uses**
  The planned future use for the Property is continued operation as a full service Marina.

- **Zoning**
  The Property is zoned commercial, within a mixed-use commercial and residential area.

Contaminant Source and History: The source of contamination has been determined to be due to historic releases of tph-g and tph-d from the underground storage tanks (USTs) and leaking fuel dispenser system located adjacent to the shoreline bulkhead.

Physiographic Setting:
The Site is located at an elevation of approximately 25 feet above mean sea level within the Puget Sound Lowland physiographic province, a broad low lying region bordered by the Puget Sound saltwater inlet to the west and the Cascade Mountains to the east. The Site is located on the Interlake Drift Upland subphysiographic province of metropolitan Seattle, which was created during the retreat of continental glaciers during the most recent period of glaciation (Fraser) nearly 14,000 years ago. The Fraser ice retreated quickly, leaving behind a landscape sculpted by glacial erosion and covered by newly deposited glacial drift.

Surface/Storm Water System:
The Site is located adjacent to Lake Washington. Surface water (storm water) runoff from the Property either infiltrates into the subsurface or is collected by various catch basins located on the site. The collected surface water (storm water) is directed into a storm water filtration system located on the eastern parcel, then discharged to Lake Washington. Waste water generated within the shop at the property discharges to an oil-water separator within the shop prior to discharge into Lake Washington. The oil-water separator is maintained and cleaned out by a commercial vendor on an annual basis.

Ecological Setting: With the exception of some minor landscaped areas, the majority of the Site is paved with either concrete or asphalt. Land use in the vicinity of the Property is primarily mixed-use commercial and residential.

Geology: The Site geology consists of glacial till, sands and gravels. The glacial till consists of dense, gravelly, sandy silt to silty sand with varied quantities of clay and scattered cobbles and boulders. Some of these deposits are overlain by alluvium, consisting of sand and gravel, overbank silt and clay deposits, and peat. The location of present-day waterways and river drainages was established by the pattern of Fraser glacial erosion and deposition. Soil beneath the Site consists predominantly of non-native fill materials consisting of fine sand, silt and gravel from the ground surface to approximately 15 feet below ground surface (bgs).

Ground Water: According to the USGS Groundwater Atlas of the United States - Idaho, Oregon, Washington, the Site overlies the Puget-Willamette Trough regional aquifer system. In the King County area, the system is filled with unconsolidated deposit aquifers that collectively are as much as 3,000 feet thick and could potentially be consolidated in their lower part. Perched aquifers can exist in the shallow subsurface.

Site investigations indicated that depth to the ground water beneath the Site is between approximately 4 and 11 feet bgs. The shallow ground water flow direction generally follows the local topography. Based on ground water monitoring events, the inferred direction of ground water flow is to the west toward Lake Washington.

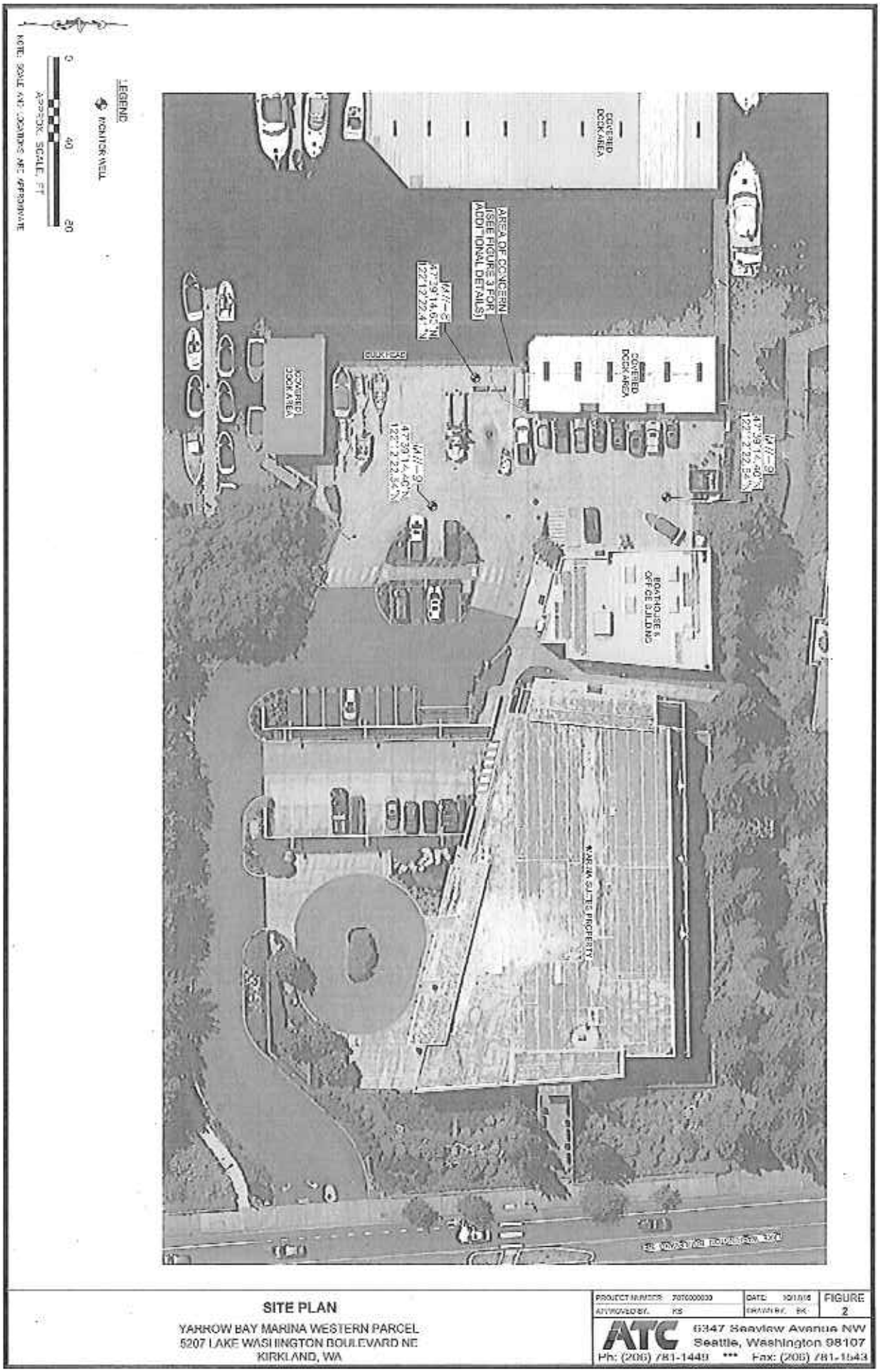
Water Supply: Water service is provided to the Property by City of Kirkland.

Release and Extent of Soil and Ground Water Contamination: A release of gasoline and diesel associated with the former fueling system was discovered during investigative activities in 2006.

Lateral delineation of the petroleum hydrocarbon impacted soil is delineated by the bulkheads to the west and north, and confirmation samples EX1-BTM-PLT (collected at 4 feet bgs), EX1-SD-E (collected at 5 feet bgs), EX1-SD-C (collected at 9 feet bgs) and EX1-SD-W (collected at 6 feet bgs). This laterally delineated area equates to approximately 250 square feet and is depicted in Figure 2 in the Site Diagrams. Assuming the thickness of the soil impacts above the MTCA Method A cleanup levels is 4.5 feet (the difference between the "average" upper interval of impact [6.5 feet] and the lower interval of impact [11 feet - the lowest measured depth of ground water during drilling]), the remedial area equates to approximately 1,125 cubic feet, or approximately 42 cubic yards.

The resulting ground water contaminant plume extended from the locations of the previous USTs toward Lake Washington and near the former fuel dispensers (adjacent to the shoreline bulkhead) remedial investigations including sediment sampling conducted at the Site showed that the contaminant plume is not discharging to Lake Washington.

Site Diagrams



SITE PLAN

YARROW BAY MARINA WESTERN PARCEL
5207 LAKE WASHINGTON BOULEVARD NE
KIRKLAND, WA

PROJECT NUMBER: 7070000030		DATE: 10/10/16	FIGURE 2
APPROVED BY: KS		DRAWN BY: BK	

ATC
6347 Seaview Avenue NW
Seattle, Washington 98107
Ph: (206) 781-1449 *** Fax: (206) 781-1543

Enclosure B

Legal Description

LEGAL DESCRIPTION:

REVISED LOT 2 OF CITY OF KIRKLAND LOT LINE ALTERATION NO. LLA07-00020 RECORDED OCTOBER 2, 2007 UNDER RECORDING NO. 20071002900006, IN KING COUNTY, WASHINGTON;

SAID REVISED LOT 2 IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH HALF OF THE SOUTH HALF OF GOVERNMENT LOT 2, SECTION 17, TOWNSHIP 25 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON,

AND OF SECOND CLASS SHORE LANDS ADJOINING, AS CONVEYED BY THE STATE OF WASHINGTON BY DEED RECORDED UNDER RECORDING NUMBER 336051;

EXCEPT THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE INTERSECTION OF THE NORTH LINE OF SAID SOUTH HALF AND THE WESTERLY MARGIN OF LAKE WASHINGTON BOULEVARD NORTHEAST (SAID MARGIN BEING 46.00 FEET WEST OF THE CENTERLINE);

THENCE ALONG SAID MARGIN SOUTH 03°09'47" EAST A DISTANCE OF 75.00 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING ALONG SAID MARGIN AND BEARING 161.18 FEET;
THENCE SOUTH 45°00'00" WEST A DISTANCE OF 82.78 FEET;
THENCE NORTH 90°00'00" WEST A DISTANCE OF 159.08 FEET;
THENCE NORTH 00°00'00" EAST A DISTANCE OF 102.07 FEET;
THENCE NORTH 61°50'33" WEST A DISTANCE OF 20.63 FEET;
THENCE NORTH 05°51'48" EAST A DISTANCE OF 112.58 FEET TO THE SOUTH LINE OF A TRACT OF LAND DEEDED TO GUSTAF ADOLPH DAHLSTROM AND ELLA MARIE DAHLSTROM, HIS WIFE, BY DEED RECORDED UNDER RECORDING NUMBER 2980236;
THENCE ALONG SAID SOUTH LINE SOUTH 88°51'02" EAST A DISTANCE OF 215.45 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION OF SAID SOUTH HALF LYING NORTHERLY OF THE SOUTH LINE OF SAID DAHLSTROM PARCEL.

Enclosure C

Environmental Covenants for Institutional Controls

20161221000033
YARROW BAY YAC COV 86.00
PAGE-001 OF 014
12/21/2016 08:49
KING COUNTY, WA

Return Address:
Mr. Dale Meyers
Site Manager
Toxics Cleanup Program
Department of Ecology
3190 160th Avenue S.E
Bellevue, WA 98008-5452

Please print or type information **WASHINGTON STATE RECORDER'S Cover Sheet** (RCW 65.04)

Document Title(s) (or transactions contained therein): (all areas applicable to your document must be filled in)
1. Environmental Covenant 2. _____
3. _____ 4. _____

Reference Number(s) of Documents assigned or released: Tax Parcel #172505-9130
Additional reference #'s on page 1 of document VCP# NW1791

Grantor(s) Exactly as name(s) appear on document
1. Yarrow Bay Yacht Basin and Marina, LLC
2. With Consent of Washington Federal
Additional names on page ____ of document.

Grantee(s) Exactly as name(s) appear on document
1. State of Washington, Department of Ecology
2. _____
Additional names on page ____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
Lot 2 Kirkland BLA #LLA07-00020 REC #20071002900006 SD BLA BEING POR OF S 1/2 OF S 1/2 OF GL 2
Additional legal is on page 10 of document. STR 17-25-05

Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned
172505-9130

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.

"I am signing below and paying an additional $50 recording fee (as provided in RCW 36.18.010 and referred to as an emergency nonstandard document), because this document does not meet margin and formatting requirements. Furthermore, I hereby understand that the recording process may cover up or otherwise obscure some part of the text of the original document as a result of this request."

Irina L Botelho
Signature of Requesting Party

Note to submitter: Do not sign above nor pay additional $50 fee if the document meets margin/formatting requirements

After Recording Return
Original Signed Covenant to:
MR. DALE MEYERS
SITE MANAGER
Toxics Cleanup Program
Department of Ecology
3190 160TH AVENUE SE
BELLEVUE, WA 98008-5452

Environmental Covenant

Grantor: YARROW BAY YACHT BASIN AND MARINA, LLC, A WASHINGTON LIMITED LIABILITY COMPANY, WITH THE CONSENT OF WASHINGTON FEDERAL, A WASHINGTON CORPORATION
Grantee: State of Washington, Department of Ecology (hereafter "Ecology")
Brief Legal Description: LOT 2 KIRKLAND BLA #LLA07-00020 REC #20071002900006 SD BLA BEING POR OF S 1/2 OF S 1/2 OF GL 2 STR 17-25-05 (BEING LOT 2 & POR LOT 1 KIRKLAND BLA #LLA07-00004 REC# 20070706900007)
Tax Parcel Nos.: 172505-9130

RECITALS

a. This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW, and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

b. The Property that is the subject of this Covenant is part of a site commonly known as YARROW BAY YACHT BASIN AND MARINA, LLC (ALSO KNOWN AS YARROW BAY MARINA); FACILITY ID: 33911356; VCP No. NW1791. The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

c. The Property is the subject of remedial action conducted under MTCA. This Covenant is required because, although groundwater in MW-8 has met MTCA Method A cleanup levels for four consecutive quarters, approximately 42 cubic yards of residual soil contamination and contaminated groundwater in the vicinity of monitoring well MW-8 remains on the Property after completion of remedial actions. Specifically, the following principal contaminants remain on the Property in the area of concern shown on Exhibit B and as more specifically shown on Exhibit C (the "Area of Concern"):

Medium	Principal Contaminants Present
Soil	Gasoline- and diesel-range hydrocarbons, benzene, toluene, ethylbenzene and xylenes
Groundwater	Diesel- and heavy oil-range hydrocarbons

d. It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the

site. Records describing the extent of residual contamination and remedial actions conducted are available through Ecology.

c. This Covenant grants Ecology certain rights under UECA and as specified in this Covenant. As a Holder of this Covenant under UECA, Ecology has an interest in real property, however, this is not an ownership interest which equates to liability under MTCA or the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et seq.* The rights of Ecology as an "agency" under UECA, other than its right as a holder, are not an interest in real property.

COVENANT

Yarrow Bay Yacht Basin and Marina, LLC, as Grantor and owner of the Property, hereby grants to the Washington State Department of Ecology, and its successors and assignees, the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall supersede any prior interests the GRANTOR has in the property and run with the land and be binding on all current and future owners of any portion of, or interest in, the Property. Washington Federal, which holds a security interest in the Site, consents to this grant and its recording as indicated by its signature below.

Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

a. Interference with Remedial Action. The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

b. Protection of Human Health and the Environment. The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.

d. Leases. Grantor shall restrict any lease for the Area of Concern to uses and activities consistent with this Covenant and notify all lessees of the Area of Concern of the restrictions on the use of the Area of Concern.

Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Area of Concern.

a. Containment of Soil/Waste Materials

The remedial action for the Area of Concern at the Property is based on containing residual contaminated soil under a cap consisting of approximately 6- to 8-inches of paved concrete and located as illustrated in Exhibits B and C. The primary purpose of this cap is to minimize the potential for contact with contaminated soil; minimize leaching of contaminants to groundwater and surface water; prevent runoff from contacting contaminated soil; and minimize airborne contaminants. As such, the following restrictions shall apply within the Area of Concern illustrated in Exhibits B and C:

Containment Restriction 1: Any activity on the Property that will compromise the integrity of the cap including, but not limited to,: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; installation of underground utilities; removal of the cap; or, application of loads in excess of the cap load bearing capacity, is prohibited without prior written approval by Ecology. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to the cap. Unless an alternative plan has been approved by Ecology in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs.

Containment Restriction 2: To minimize the potential for mobilization of contaminants remaining in the soil and groundwater on the Property, no stormwater infiltration facilities or ponds shall be constructed within the Area of Concern at the Property illustrated in Exhibits B and C. Any future stormwater catch basins, conveyance systems, and other appurtenances that may be located within the Area of Concern shall be of water-tight construction.

b. Groundwater Restriction

The groundwater beneath the Area of Concern at the Property illustrated in Exhibits B and C remains contaminated and shall not be extracted for any purpose other than temporary construction dewatering, investigation, monitoring or remediation. Drilling of a well for any water supply purpose is strictly prohibited. Groundwater extracted within this area for any purpose shall be considered potentially contaminated and any discharge of this water shall be done in accordance with state and federal law.

c. Vapor Mitigation

The residual contamination on the Property includes volatile chemicals that may generate harmful vapors. As such, the following shall apply within the Area of Concern at the Property illustrated in Exhibits B and C to minimize the potential for exposure to these vapors: No building or other enclosed structure shall be constructed within the Area of Concern.

d. Compliance Monitoring

Monitor well MW-8, located within the Area of Concern, will be utilized to monitor the performance of the remedial action. The Grantor shall maintain clear access to this monitoring well and protect it from damage. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to this monitoring device. Unless Ecology approves of an alternative plan in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs.

Section 3. Access.

a. The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.

b. The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.

c. No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

Section 4. Notice Requirements.

a. Conveyance of Any Interest. The Grantor, when conveying any interest within the Area of Concern at the Property illustrated in Exhibits B and including, but not limited to title, easement, leases, and security or other interests, must:

i. Provide written notice to Ecology of the intended conveyance at least thirty (30) days in advance of the conveyance.

ii. Include in the conveying document a notice in substantially the following form, as well as a complete copy of this Covenant:

NOTICE: THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT GRANTED TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY ON December 21, 2016 **AND RECORDED WITH THE KING COUNTY AUDITOR UNDER RECORDING NUMBER** 20161221000033 **. USES AND ACTIVITIES ON THIS PROPERTY MUST COMPLY WITH THAT COVENANT, A COMPLETE COPY OF WHICH IS ATTACHED TO THIS DOCUMENT.**

iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

b. Reporting Violations. Should the Grantor become aware of any violation of this Covenant, Grantor shall promptly report such violation in writing to Ecology.

c. Emergencies. For any emergency or significant change in site conditions due to acts of nature (for example, flood or fire) resulting in a violation of this Covenant, the Grantor is authorized to respond to such an event in accordance with state and federal law. The Grantor must notify Ecology in writing of the event and response actions planned or taken as soon as practical but no later than within 24 hours of the discovery of the event.

d. Notification procedure. Any required written notice, approval, reporting or other communication shall be personally delivered or sent by first class mail to the following persons. Any change in this contact information shall be submitted in writing to all parties to this Covenant. Upon mutual agreement of the parties to this Covenant, an alternative to personal delivery or first class mail, such as e-mail or other electronic means, may be used for these communications.

Yarrow Bay Yacht Basin and Marina, LLC. Mr. Dennis Bortko, Manager Mr. Paul E. Wilcox, Manager 5207 Lake Washington Boulevard NE Kirkland, Washington 98033 425-822-6066 Dennis Bortko: tlbortko@msn.com Paul Wilcox: Paul_wfc@live.com	Environmental Covenants Coordinator Washington State Department of Ecology Toxics Cleanup Program P.O. Box 47600 Olympia, WA 98504 – 7600 (360) 407-6000 ToxicsCleanupProgramHQ@ecy.wa.gov

Section 5. Modification or Termination.

a. Grantor must provide written notice and obtain approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with this Covenant. For any proposal that is inconsistent with this Covenant and permanently modifies an activity or use restriction at the Property:

i. Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal; and

ii. If Ecology approves of the proposal, the Covenant must be amended to reflect the change before the activity or use can proceed.

b. If the conditions at the site requiring a Covenant have changed or no longer exist, then the Grantor may submit a request to Ecology that this Covenant be amended or terminated. Any amendment or termination of this Covenant must follow the procedures in MTCA and UECA and any rules promulgated under these chapters.

c. By signing this agreement, per RCW 64.70.100, the original signatories to this agreement, other than Ecology, agree to waive all rights to sign amendments to and termination of this Covenant.

Section 6. Enforcement and Construction.

a. This Covenant is being freely and voluntarily granted by the Grantor.

b. Within ten (10) days of execution of this Covenant, Grantor shall provide Ecology with an original signed Covenant and proof of recording and a copy of the Covenant and proof of recording to others required by RCW 64.70.070.

c. Ecology shall be entitled to enforce the terms of this Covenant by resort to specific performance or legal process. All remedies available in this Covenant shall be in addition to any and all remedies at law or in equity, including MTCA and UECA. Enforcement of the terms of this Covenant shall be at the discretion of Ecology, and any forbearance, delay or omission to exercise its rights under this Covenant in the event of a breach of any term of this Covenant is not a waiver by Ecology of that term or of any subsequent breach of that term, or any other term in this Covenant, or of any rights of Ecology under this Covenant.

d. The Grantor shall be responsible for all costs associated with implementation of this Covenant. Furthermore, the Grantor, upon request by Ecology, shall be obligated to pay for

Ecology's costs to process a request for any modification or termination of this Covenant and any approval required by this Covenant.

e. This Covenant shall be liberally construed to meet the intent of MTCA and UECA.

f. The provisions of this Covenant shall be severable. If any provision in this Covenant or its application to any person or circumstance is held invalid, the remainder of this Covenant or its application to any person or circumstance is not affected and shall continue in full force and effect as though such void provision had not been contained herein.

g. A heading used at the beginning of any section or paragraph or exhibit of this Covenant may be used to aid in the interpretation of that section or paragraph or exhibit but does not override the specific requirements in that section or paragraph.

The undersigned Grantor warrants Yarrow Bay Yacht Basin and Marina, LLC, holds the title to the Property and he has authority to execute this Covenant.

EXECUTED this 25 day of November, 2016.

Yarrow Bay Yacht Basin and Marina, a Washington limited liability company

By: Dennis W. Bortko
Dennis W. Bortko
Its: Manager

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 25 day of November 2016, before me, a Notary Public in and for the State of Washington, personally appeared Dennis W. Bortko, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged it as the Manger of Yarrow Bay Yacht Basin and Marina, LLC to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year first above written.

MARY J SORENSON
Notary Public, State of Washington
My Commission Expires
May 22, 2018

NOTARY PUBLIC in and for the State of Washington,
residing at King County
My appointment expires 5/22/2018
Print Name Mary J Sorenson

The undersigned Grantor warrants Yarrow Bay Yacht Basin and Marina, LLC, holds the title to the Property and he has authority to execute this Covenant.

EXECUTED this 25 day of November, 2016.

Yarrow Bay Yacht Basin and Marina, a Washington limited liability company

By: _____
Paul A. Wilcox
Its: Manager

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 25 day of November 2016, before me, a Notary Public in and for the State of Washington, personally appeared Paul A. Wilcox, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath stated that he was authorized to execute the instrument, and acknowledged it as the Manger of Yarrow Bay Yacht Basin and Marina, LLC to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year first above written.

MARY J SORENSON
Notary Public, State of Washington
My Commission Expires
May 22, 2018

_____
NOTARY PUBLIC in and for the State of Washington,
residing at K. Co, County
My appointment expires 5-22-2018
Print Name Mary J Sorenson

The undersigned Grantor warrants Washington Federal holds a security interest in the Property and consents to the property owners grant of this Covenant and its recording.

EXECUTED this 6 day of DECEMBER, 2016.

Washington Federal, a Washington Corporation

By: _____
Its: VICE PRESIDENT

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 6th day of November, 2016, before me, a Notary Public in and for the State of Washington, personally appeared David Hassinger, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath stated that he/she was authorized to execute the instrument, and acknowledged it as the Vice President of Washington Federal to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year first above written.

Gloria Leach NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES MAY 2, 2020

_____
NOTARY PUBLIC in and for the State of Washington, residing at Kirkland WA
My appointment expires 5/2/2020
Print Name Gloria Leach

The Department of Ecology hereby accepts the status as GRANTEE and HOLDER of the above Environmental Covenant.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Signature

ROBERT W. WARREN
SECTION MANAGER
TOXICS CLEANUP PROGRAM
NORTHWEST REGIONAL OFFICE

Date: 12-14-14

Exhibit A

LEGAL DESCRIPTION

REVISED LOT 2 OF CITY OF KIRKLAND LOT LINE ALTERATION NO. LLA07-00020 RECORDED OCTOBER 2, 2007 UNDER RECORDING NO. 20071002900006, IN KING COUNTY, WASHINGTON;

SAID REVISED LOT 2 IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH HALF OF THE SOUTH HALF OF GOVERNMENT LOT 2, SECTION 17, TOWNSHIP 25 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON,

AND OF SECOND CLASS SHORE LANDS ADJOINING, AS CONVEYED BY THE STATE OF WASHINGTON BY DEED RECORDED UNDER RECORDING NUMBER 336051;

EXCEPT THE FOLLOWING DESCRIBED PARCEL:

COMMENCING AT THE INTERSECTION OF THE NORTH LINE OF SAID SOUTH HALF AND THE WESTERLY MARGIN OF LAKE WASHINGTON BOULEVARD NORTHEAST (SAID MARGIN BEING 46.00 FEET WEST OF THE CENTERLINE);

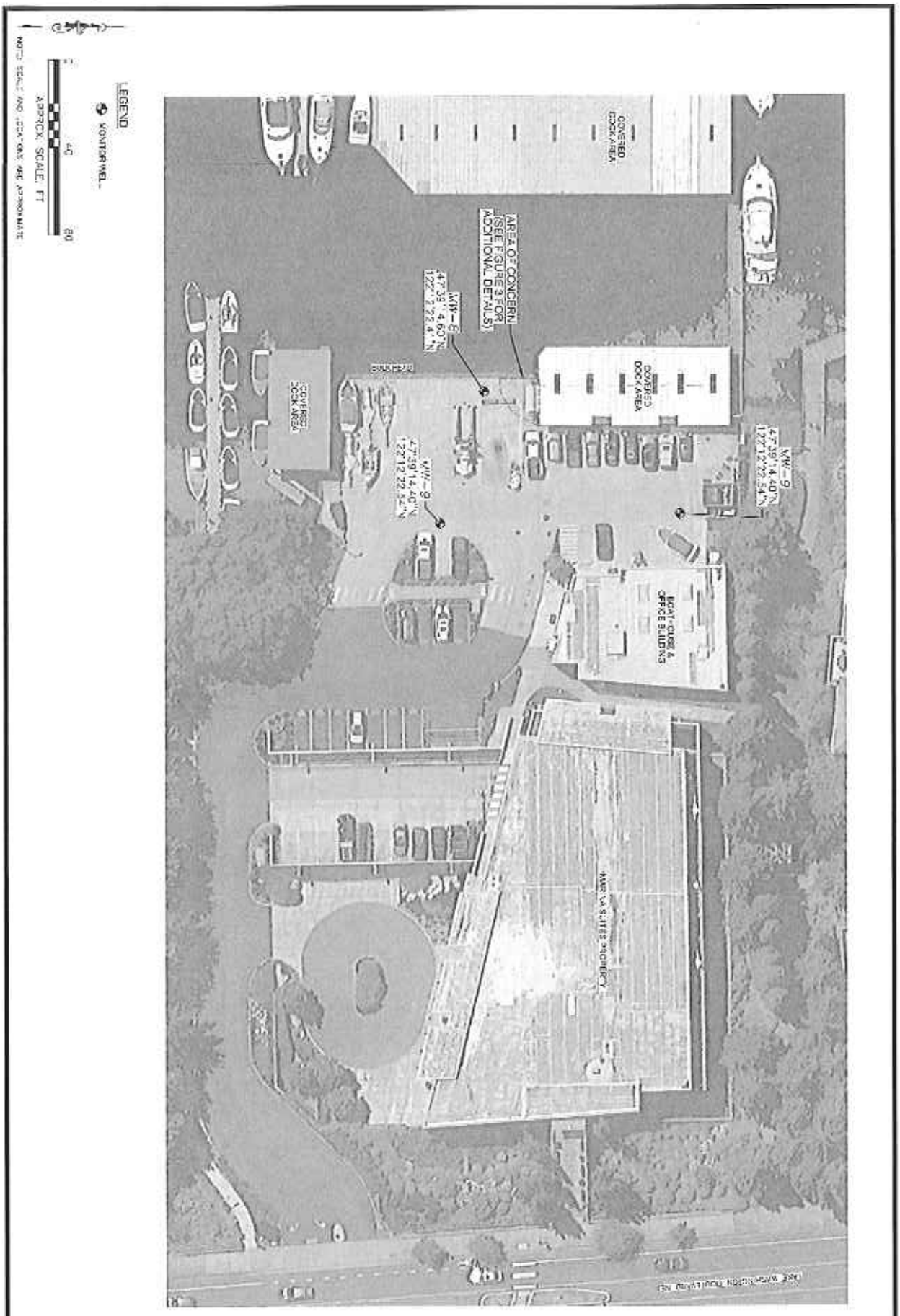
THENCE ALONG SAID MARGIN SOUTH 03°09'47" EAST A DISTANCE OF 75.00 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING ALONG SAID MARGIN AND BEARING 161.18 FEET;
THENCE SOUTH 45°00'00" WEST A DISTANCE OF 82.78 FEET;
THENCE NORTH 90°00'00" WEST A DISTANCE OF 159.08 FEET;
THENCE NORTH 00°00'00" EAST A DISTANCE OF 102.07 FEET;
THENCE NORTH 61°50'33" WEST A DISTANCE OF 20.63 FEET;
THENCE NORTH 05°51'48" EAST A DISTANCE OF 112.58 FEET TO THE SOUTH LINE OF A TRACT OF LAND DEEDED TO GUSTAF ADOLPH DAHLSTROM AND ELLA MARIE DAHLSTROM, HIS WIFE, BY DEED RECORDED UNDER RECORDING NUMBER 2980236;
THENCE ALONG SAID SOUTH LINE SOUTH 88°51'02" EAST A DISTANCE OF 215.45 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION OF SAID SOUTH HALF LYING NORTHERLY OF THE SOUTH LINE OF SAID DAHLSTROM PARCEL.

Exhibit B

PROPERTY MAP



SITE PLAN

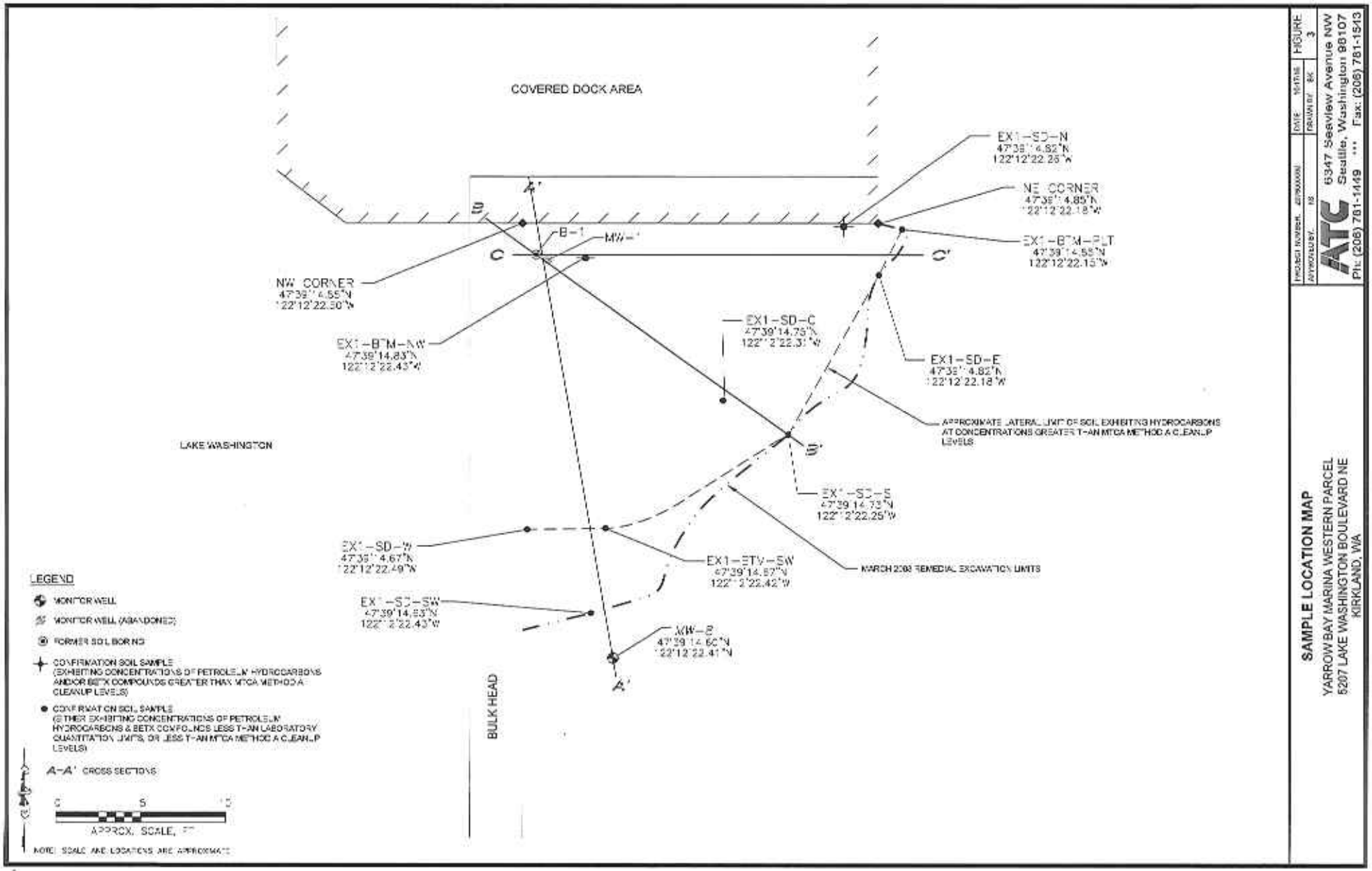
YARROW BAY MARINA WESTERN PARCEL
5207 LAKE WASHINGTON BOULEVARD NE
KIRKLAND, WA

PROJECT NUMBER: 2070000030	DATE: 10/1/18	FIGURE
APPROVED BY: KS	DRAWN BY: BK	2

ATC
6347 Seaview Avenue NW
Seattle, Washington 98107
Ph: (206) 781-1449 *** Fax: (206) 781-1543

Exhibit C

MAP ILLUSTRATING LOCATION OF RESTRICTIONS



SAMPLE LOCATION MAP

YARROW BAY MARINA WESTERN PARCEL
5207 LAKE WASHINGTON BOULEVARD NE
KIRKLAND, WA

FIGURE 3

ATC
6347 Seaview Avenue NW
Seattle, Washington 98107
Phone (206) 781-1449 *** Fax: (206) 781-1543

Enclosure D

Confirmational Monitoring Plan

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

6347 Seaview Avenue NW
Seattle, WA 98107
Telephone 206-781-1449
Fax 206-781-1543
www.atcgroupservices.com

November 3, 2016

Mr. Dale Myers
Site Manager
Toxics Cleanup Program
Washington State Department of Ecology – Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008-5452

SUBJECT **Confirmational Groundwater Monitoring Plan**
Yarrow Bay Yacht Basin and Marina
5207 Lake Washington Boulevard NE
Kirkland, Washington 98033
ATC Project No. 076.40540.0003
Washington Department of Ecology VCP No. NW1791

Dear Mr. Myers:

Pursuant to a request from the Washington State Department of Ecology (Ecology), ATC Group Services LLC (ATC) has prepared this Confirmational Groundwater Monitoring Plan (CGMP) presenting a scope of work to confirm the long-term effectiveness of the cleanup action completed at the Yarrow Bay Yacht Basin and Marina (Site). The Site is identified as Tax Parcel No. 172505-9130, which is an irregular shaped lot that consists of approximately 44,797 square feet of commercial property, a portion of which extends into Lake Washington. Site features include a marina with boat repair and fueling facilities. The Site address is 5207 Lake Washington Boulevard Northeast in Kirkland, Washington.

The Site location is shown relative to surrounding physical features in **Figure 1**. The layout of the Site is shown on **Figure 2**.

BACKGROUND

A release of gasoline and diesel associated with the former fueling system was discovered during investigative activities in 2006. The resulting groundwater contaminant plume extended from the locations of the previous USTs toward Lake Washington and near the former fuel dispensers (adjacent to the shoreline bulkhead). Previous investigative activities indicate that the residual impacts to soil and groundwater comprise an area approximately 250 square feet just south of the covered dock area, in the vicinity of the fuel dispensers (**Figure 2**). The remaining mass of impacted soil is confined and delineated, and based on the most recent groundwater monitoring and sampling data, is not impacting groundwater conditions that would present unacceptable risk to human health and the environment. The remaining contaminant mass is not expected in increase in contaminant concentration.

Natural Attenuation (NA) with institutional controls and restrictive covenant has been selected as the preferred remedial technology based on a completed comparative evaluation of various technologies, ability to attain the remedial action objectives, analysis of screening criteria, and a disproportionate cost analysis. In order to ensure that NA and institutional controls remain effective and continue to protect groundwater conditions, a scope of work describing future monitoring and sampling has been prepared (presented below) and will be implemented on a periodic basis.

SCOPE OF WORK

The scope of work presented below consists of collecting groundwater samples for chemical analysis (to evaluate groundwater conditions) and observing the integrity of the existing cap (currently consisting of approximately 6- to 8-inches of paved concrete) that prevents exposure, minimizes leaching of contaminants from soil to groundwater, prevents stormwater from contacting impacted soil and minimizes airborne contaminants.

The scope of work is summarized in the following tasks:

- Develop a project-specific Health and Safety Plan (HASP);
- Collect groundwater samples from groundwater monitoring well, MW-1, on an annual basis for three consecutive years.
- Submit the groundwater samples for chemical analysis by an Ecology certified laboratory.
- Place any sampling-derived waste (purge water) generated during the sampling activities into labeled 55-gallon drums pending characterization and disposal at a state approved facility.
- Observe the condition of the existing cap concurrently with each groundwater sampling event. Document the condition of the cap with photographs and note any issues pertaining to its integrity.
- Prepare and submit written reports to Ecology and Mr. and Mrs. Bortko (property owners) describing the field activities for each event, including the groundwater sampling activities, laboratory analytical results, conditions of the cap (including photographs) and any conclusions and recommendations based on those results.

A sampling and analysis plan, fulfilling the requirements of Washington Administrative Code (WAC) 173-340-820, is presented below.

SAMPLING AND ANALYSIS PLAN

The purpose of this Sampling and Analysis Plan (SAP) is to provide guidance for field sampling activities and to identify Quality Assurance (QA) procedures that will be implemented during the field activities and laboratory analyses. The SAP has been organized into the following sections:

1. Groundwater Sampling Procedures including purging, sample handling, sample designation and labeling, and sample custody;
2. Decontamination procedures;
3. Documentation of field activities;
4. Chemical Analysis;
5. IDW; and
6. Reporting

Each Section is described below:

Groundwater Sampling Procedures

Purging:

Prior to collection of the groundwater samples, monitoring well MW-8 will be purged using low-flow sampling techniques. During low-flow groundwater purging, high density polyethylene (HDPE) tubing is lowered into the well to the approximate center of the screened interval. Groundwater is then purged by means of a peristaltic pump set at a steady flow rate while maintaining a drawdown of less than 0.33 feet. During the low flow purge, ATC will monitor and document water quality parameters including pH, temperature, conductivity, turbidity, dissolved oxygen, and oxidation reduction potential (ORP). Purging will continue until these parameters stabilize for three consecutive readings as indicated:

- pH +/-0.1 standard units
- temperature +/- 0.1 degree Celcius
- specific conductance +/- 10.0 ohm-cm
- dissolved oxygen +/- 0.2 mg/L
- ORP +/-10 millivolts

Stabilization is considered to have occurred when the above criteria are met for three successive readings, although due to geologic heterogeneities within the screened interval and site-specific conditions, adjustments on flow rate and stabilization criteria may be required.

After purging, groundwater samples from the well will be transferred directly from the sampling apparatus to clean, laboratory-supplied containers and preserved during transport to the analytical laboratory. Sample handling and chain-of-custody procedures are described below. All purged groundwater will be temporarily stored on site in labeled, 55-gallon drums until a permanent off-site disposal method is selected.

Sample Handling:
New disposable nitrile gloves will be worn when collecting groundwater samples. All samples collected for chemical analysis will be transferred into clean sample containers supplied by the analytical laboratory. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis.

Immediately after the samples are collected, they will be stored in a cooler with ice at approximately 4 degrees Celcius until they are delivered to the analytical laboratory. A laboratory temperature QA vial will accompany each cooler to verify that proper holding temperatures were maintained during transport.
Standard chain-of-custody procedures, as described below, will be followed for all samples collected. All samples will be submitted to the laboratory within 48 hours after their collection. Shipment procedures will include the following:

- Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant/container. If the cooler contains a drainage hole, it will be sealed and secured in case of sample container leakage.
- Each cooler will be delivered directly to the analytical laboratory.
- Glass bottles will be separated in the shipping container by cushioning material (for example, Styrofoam or absorbent material) to help prevent breakage.
- The chain-of-custody form and sample request form will be taped inside the lid of the cooler/container and delivered to the laboratory. Chain-of-custody tape will be used to seal the sample-shipping container in conformance with EPA protocol.
- Signed and dated chain-of-custody seals will be applied to each cooler/container prior to transport of samples from the project site.

Sample Designation and Labeling:
Each groundwater sample collected during the field activities will be identified by a sample designation that will be included on the sample label. For this project, the samples collected from monitoring well MW-1 will be designated and labeled as "MW-1." Sample labels will be completed in indelible ink. Sample labels will also include the following information:

- ATC's project number
- Date of sample collection (month/day/year)
- Time of sample collection (hours:minutes)
- Chemical analyses to be conducted
- Sample preservation, if appropriate

Sample Custody:
All samples collected for analysis will be recorded in the field report or data sheets. A chain-of-custody form will be completed at the end of each sampling day prior to transfer of samples off site and will accompany the samples during shipment to the laboratory. A signed and dated custody seal will be affixed to the inside lid of the shipping container. The samples will be delivered to the laboratory by ATC personnel, by laboratory courier, or by common carrier, such as Federal Express. Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the condition of the samples will be recorded on the form. The original chain-of-custody form will remain with the laboratory, and copies will be returned to the relinquishing party.

Decontamination Procedures

The objective of the decontamination procedure is to help minimize the potential for cross-contamination prior to collecting the groundwater samples. Sampling and measurement equipment, including well pumping equipment and water level measurement instruments, will be decontaminated in accordance with the following procedures before each sampling attempt or measurement:

- Brush equipment with a wire brush, if necessary, to remove large particulate matter.
- Rinse with potable tap water.
- Wash with nonphosphate detergent solution (liquinox and potable tap water).
- Rinse with potable tap water.
- Rinse with distilled water.

Disposable nitrile gloves will be worn during decontamination activities, and gloves will be rinsed with potable tap water between decontamination procedures. All decontamination solutions will be collected and stored temporarily on site in labeled, 55-gallon drums pending chemical analysis for disposal.

Documentation of Field Activities

Daily field activities, including observations and field procedures, will be recorded on appropriate forms. The original field forms will be maintained in ATC's office files. Copies of the completed forms will be maintained in a sequentially numbered field file for reference during field activities. Indelible ink will be used, unless prohibited by weather. Photographic documentation of field activities will be performed, as appropriate. The daily record of field activities will include the following:

- Date
- Time of arrival and departure
- Weather conditions (including temperature)
- Field investigation team members
- Daily activities and times conducted
- Observations
- Record of samples collected with sample designations and locations specified
- Photographic log
- Field monitoring data, including health and safety monitoring
- Equipment used and calibration records, if appropriate
- Site visitors
- List of additional data sheets and maps completed
- Signature of personnel completing field record

Chemical Analysis

Groundwater samples submitted for chemical analysis will be delivered to a Washington State certified laboratory and analyzed within standard holding times. Groundwater samples will be analyzed for the following contaminants of concern (COC) using the following methods:

- Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), by United State Environmental Protection Agency (EPA) Method 8260B;
- Total petroleum hydrocarbons as gasoline (TPHG) by Northwest Method NWTPH-Gx; and
- Total petroleum hydrocarbons as diesel (TPHD) by Northwest Method NWTPH-Dx.

Additional analysis may be necessary depending on the results of the above analysis. Additional analysis will be analyzed according to Table 830-1 of WAC 173-340-900.

The analytical laboratory will have an established internal QA program. The laboratory will use a combination of blanks, surrogates, duplicates, Matrix Spike (MS)/MS Duplicates, and laboratory control samples Blank Spikes (BS)/BS Duplicates to demonstrate analytical QA/Quality Control (QC). The laboratory will have established control limits for individual chemicals or groups of chemicals based on the long-term performance of the test methods.

The laboratory's equipment calibration procedures, calibration frequency, and calibration standards will be in accordance with EPA- or Ecology-specified test methodology requirements. All instruments and equipment used by the laboratory will be operated, calibrated, and maintained according to manufacturers' guidelines and recommendations. Personnel who have been properly trained in these procedures will perform operation, calibration, and maintenance.

Investigation-Derived Waste

Investigation-derived wastes (IDW) in the form of purge and decon wastewater are expected to be generated during field activities. Wastewater generated during field activities will be placed in Department of Transportation (DOT)-approved 55-gallon drums. The drums will be sealed, labeled, and temporarily stored on site. Arrangements for proper disposal and/or recycling of IDW will be made upon receipt of final analytical results for groundwater.

Report Generation

ATC will compile the field data into a Confirmation Groundwater Monitoring Report upon receipt of laboratory analytical data. This report will be submitted to Mr. and Mrs. Bortko for review prior to submittal to Ecology. The report will present a description of field activities and analytical laboratory results. This report will also include laboratory reports, well purge logs, photographs, and chain-of-custody documentation as attachments. This report will also include a description of the methods and procedures used, any assumptions made, findings, and recommendations (if appropriate).

If groundwater monitoring results indicate further attenuation, or stability and compliance with MTCA Method A cleanup levels for three consecutive annual events, the property owners will contact Ecology to discuss the necessity of additional monitoring and sampling events.

Should you have any questions or require additional information regarding this CGMP, please contact the undersigned.

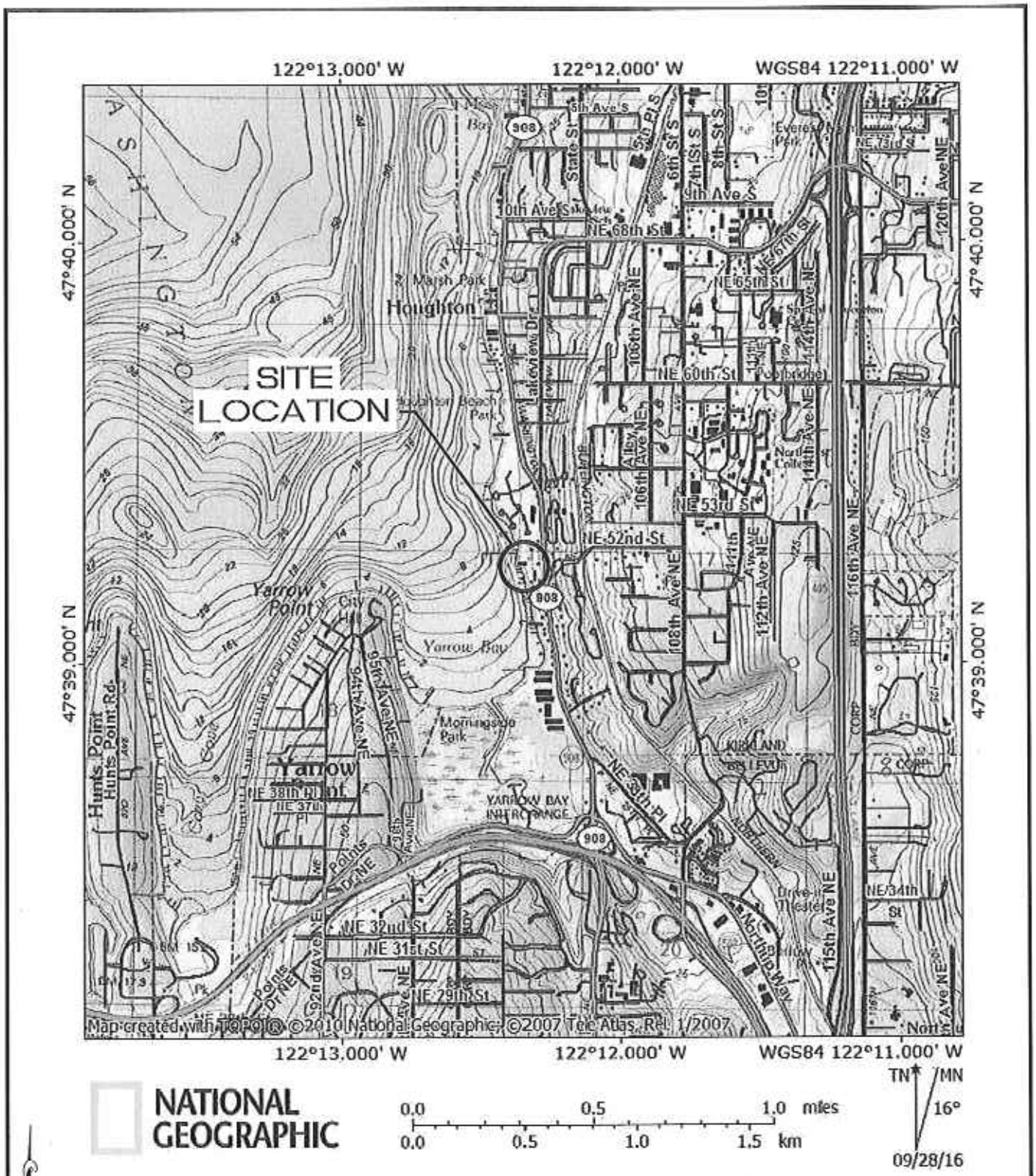
Respectfully submitted,
ATC **Group Services LLC**

Nasrin Bastami
Project Manager
Office: 206-781-1449
Email: Nasrin.bastami@atcassociates.com

Kyle Sattler
Senior Project Manager
Direct Line: 503-407-9933
Email: kyle.sattler@atcassociates.com

Enclosures
cc: Mr. and Mrs. Bortko – Property Owners (electronic copy only)

FIGURES



SOURCE: USGS TOPO MAP, BELLEVUE NORTH W, WA QUAD, 1982

SITE VICINITY MAP

YARROW BAY MARINA WESTERN PARCEL
5207 LAKE WASHINGTON BOULEVARD NE
KIRKLAND, WA

PROJECT NUMBER: Z076000030		DATE: 9/28/16	FIGURE 1
APPROVED BY: KS		DRAWN BY: BK	

ATC
6347 Seaview Avenue NW
Seattle, Washington 98107
Ph: (206) 781-1449 *** Fax: (206) 781-1543

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