

WETLAND DELINEATION REPORT

**Herzl-Ner Tamid Property
Mercer Island, Washington**

March 26, 2024

RAEDEKE ASSOCIATES, INC.

Report To: Jeff Ding
EA Engineering, Science & Technology, Inc.
2200 Sixth Avenue, Suite 707
Seattle, WA 98121

Title: Wetland Delineation Report
Herzl-Ner Tamid Property
Mercer Island, Washington

RAI Project Number: 2023-081-001

Prepared by: RAEDEKE ASSOCIATES, INC.
2111 N. Northgate Way Ste. 219
Seattle, Washington, 98133
(206) 525-8122

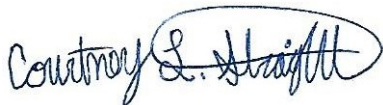
Date: March 26, 2024

Project Manager: Christopher W. Wright, B.S.
President/Soil and Wetland Scientist

Project Personnel: Courtney Straight, B.S., WPIT
Wetland and Wildlife Biologist

Annamaria Clark, B.S, PWS
Wetland Biologist

Submitted by:



Signature

Courtney Straight

Printed Name

Date: March 26, 2024

TABLE OF CONTENTS

	Page
LIST OF FIGURES	IV
1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Property Location	1
2.0 METHODS	2
2.1 Definitions and Methodologies.....	2
2.2 Background Research	3
2.3 Field Sampling Procedures	4
3.0 EXISTING CONDITIONS.....	6
3.1 Results of Background Investigation.....	6
3.2 Results of Field Investigations.....	6
4.0 REGULATORY CONSIDERATIONS.....	9
4.1 Federal Clean Water Act (CWA)	9
4.2 Washington State Hydraulic Code.....	9
4.3 City of Mercer Island Code	9
5.0 PROPOSED PROJECT	11
6.0 LIMITATIONS.....	12
7.0 LITERATURE CITED	13
FIGURES	16
APPENDIX A: Field Survey Data	A-1

LIST OF FIGURES

Figure	Page
1. Regional & Vicinity Map.....	17
2. NRCS Web Soil Survey.....	18
3. U.S. Fish and Wildlife National Wetland Inventory.....	19
4. Mercer Island GIS Portal	20
5. WDFW Priority Habitats and Species	21
6. NWIFC Statewide Washington Integrated Fish Distribution	22
7. DNR Forest Practices Application Map	23
8. Existing Conditions.....	24
9. Proposed Site Plan	25

1.0 INTRODUCTION

1.1 PURPOSE

Raedeke Associates, Inc. was retained by EA Engineering, Science & Technology, Inc. to provide a wetland assessment for the Herzl-Ner Tamid property located at 3700 East Mercer Way in the City of Mercer Island, Washington. As part of this assessment, we conducted a site visit to investigate the area for any wetlands or streams on or in vicinity of the project site and delineate the Ordinary High Water Mark (OHWM) of Lake Washington. As part of this evaluation, we did not observe any streams or wetlands on or in the vicinity of the project site.

This report presents the findings of our background information review, and our March 14, 2024 site investigation of the project site. This report follows the City of Mercer Island (2024a) critical areas regulations and reporting requirements.

1.2 PROPERTY LOCATION

The Herzl-Ner Tamid Mercer Island project site consists of a 4.04-acre assemblage located at 3700 East Mercer Way in Mercer Island, Washington (Figure 1). The project site is identified as King County Tax Parcel Nos. 0824059045, 2107000010, 1515600010, and 151560TRCT, which is a developed property with the Herzl-Ner Tamid Congregation facilities. The parcels are located in a portion of Section 8, Township 24 North, Range 5 East, W.M.

The property is bordered to the north by a public boat launch, Puget Sound Energy facilities, and Interstate 90. It is bordered to the east by Lake Washington, to the south by single-family residences, to the east by single-family homes, and to the west by East Mercer Way. The property is accessed via a private driveway from East Mercer Way.

2.0 METHODS

2.1 DEFINITIONS AND METHODOLOGIES

2.1.1 Wetlands

Wetlands and streams are protected by federal law as well as by state and local regulations. Federal law (Section 404 of the Clean Water Act) prohibits the discharge of dredged or fill material into “Waters of the United States”, including certain wetlands, without a permit from the U.S. Army Corps of Engineers (COE 2021). The COE makes the final determination as to whether an area meets the definition of a wetland and whether the wetland is under their jurisdiction.

The COE wetland definition was used to determine if any portions of the project area could be classified as wetland. A wetland is defined as an area “inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (Federal Register 1986:41251).

We based our investigation upon the guidelines of the U. S. Army Corps of Engineers (COE) Wetlands Delineation Manual (Environmental Laboratory 1987) and subsequent amendments and clarifications provided by the COE (1991a, 1991b, 1992, 1994), as updated for this area by the regional supplement to the COE wetland delineation manual for the Western Mountains, Valleys, and Coast Region (COE 2010). The COE wetlands manual is required by state law (WAC 173-22-035, as revised) for all local jurisdictions.

Hydrophytic vegetation is defined as “macrophytic plant life growing in water, soil or substrate that is at least periodically deficient in oxygen as a result of excessive water content” (Environmental Laboratory 1987). The U.S. Army Corps of Engineers National Wetland Plant List wetland indicator status (WIS) ratings were used to make this determination (Lichvar et al. 2016). The WIS ratings “reflect the range of estimated probabilities (expressed as a frequency of occurrence) of a species occurring in wetland versus non-wetland across the entire distribution of the species” (Reed 1988:8). Plants are rated, from highest to lowest probability of occurrence in wetlands, as obligate (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and upland (UPL), respectively. In general, hydrophytic vegetation is present when the majority of the dominant species are rated OBL, FACW, and FAC.

A hydric soil is defined as “a soil that is formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part” (Federal Register 1995: 35681). The morphological characteristics of the soils in the study area were examined to determine whether any could be classified as hydric.

According to the 1987 methodology, wetland hydrology could be present if the soils were saturated (sufficient to produce anaerobic conditions) within the majority of the rooting zone (usually the upper 12 inches) for at least 5% of the growing season, which in this area is usually at least 2 weeks (COE 1991a). It should be noted, however, that areas having saturation to the surface between 5% and 12% of the growing season may or may not be wetland (COE 1991b). Depending on soil type and drainage characteristics, saturation to the surface would occur if water tables were shallower than about 12 inches below the soil surface during this time period. Positive indicators of wetland hydrology include direct observation of inundation or soil saturation, as well as indirect evidence such as driftlines, watermarks, surface encrustations, and drainage patterns (Environmental Laboratory 1987). Hydrology was further investigated by noting drainage patterns and surface water connections between wetlands and streams within and adjacent to the project area.

2.1.2 Ordinary High Water Mark Determination

We based our evaluation of the Ordinary High Water Mark (OHWM) on definitions provided under the Washington State Shoreline Management Act of 1971. The Washington State definition for the OHWM is as follows:

Ordinary high water mark or "OHWM" means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland, provided that in any area where the ordinary high water line cannot be found, the ordinary high water line adjoining saltwater shall be the line of mean higher high water, and the ordinary high water line adjoining freshwater shall be the elevation of the mean annual flood." ... (RCW 90.58.030(2)(c) and WAC173-22-030(5).

As outlined in the WDOE (2016) Shoreline Administrators Manual, the general guidelines for determining the OHWM include: (1) a clear vegetation mark; (2) wetland/upland edge; (3) elevation; (4) a combination of changes in vegetation, elevation, and landward limit of drift deposition; (5) soil surface changes from algae or sediment deposition to areas where soils show no sign of depositional processes; and/or (6) soil profile changes from wetter conditions (low chroma, high soil organic matter, and lack of mottling) to drier conditions (higher chroma, less organic matter, or brighter mottles).

2.2 BACKGROUND RESEARCH

Prior to conducting our site visit, we reviewed existing background maps and information for the project site from the U.S.D.A. Natural Resource Conservation Service (NRCS 2024) Web Soil Survey, the U.S. Fish and Wildlife (USFWS 2024) National Wetland Inventory (NWI), the City of Mercer Island (2024b) GIS Portal, and the King County

(2024) iMap in order to assist in our determination of whether wetlands were present within the property or its vicinity. In addition, we reviewed current and historical aerial photographs (Google Earth 2024) to assist in the definition of existing plant communities, drainage patterns, and land use.

The online priority habitats and species (PHS) database maintained by Washington Department of Fish and Wildlife (WDFW 2024) and Statewide Washington Integrated Fish Distribution (SWIFD) database maintained by the Northwest Indian Fishery Commission (NWIFC 2024) document information on the potential occurrence of federal- or state-listed endangered, threatened, sensitive, candidate, other priority, or monitor wildlife species (hereafter “species of concern”), or priority habitats on the project site and vicinity. State priority species are defined as those fish and wildlife species “requiring protective measures and/or management actions to ensure their survival”, and State priority habitats are defined as habitat types “with unique or significant value to many species” (WDFW 2008). We also reviewed database information maintained by the Washington Natural Heritage Program (2024) for occurrence of endangered, threatened, and sensitive plants in the vicinity of the project site.

2.3 FIELD SAMPLING PROCEDURES

We conducted a site visit on March 14, 2024 to identify and delineate the OHWM of Lake Washington and any wetlands or stream on or within the vicinity of the project site. During our site visit, we also collected information sufficient to describe the general site conditions.

Vegetation, soils, and hydrology were examined in representative portions of the study area according to the procedures described in the Regional Supplement (COE 2010). Plant communities were inventoried, classified, and described during our field investigation. We estimated the percent coverage of each species. Plant identifications were made according to standard taxonomic procedures described in Hitchcock and Cronquist (2018), with nomenclature as updated by the U.S. Army Corps of Engineers National Wetland Plant List (Lichvar et al. 2016). Wetland classification follows the USFWS wetland classification system (Cowardin et al. 1992). We determined the absence of a hydrophytic vegetation community using the procedure described in the Regional Supplement (COE 2010), which requires the use of the dominance test, unless positive indicators of hydric soils and wetland hydrology are also present, in which case the prevalence index or the use of other indicators of a hydrophytic vegetation community as described in the Regional Supplement (COE 2010) may also be required.

We excavated pits to at least 18 inches below the soil surface, where possible, in order to describe the soil and hydrologic conditions throughout the study area. We sampled soil at locations that corresponded with vegetation sampling areas and potential wetland areas. Soil colors were determined using the Munsell Soil Color Chart (Munsell Color

2009). We used the indicators described in the Regional Supplement (COE 2010) to determine the presence of hydric soils and wetland hydrology.

We delineated the OHWM of Lake Washington using pink and black flagging labeled OHWM 1-1 to OHWM 1-6.

3.0 EXISTING CONDITIONS

3.1 RESULTS OF BACKGROUND INVESTIGATION

The USDA NRCS (2024) Web Soil Survey (Figure 2) identifies Alderwood gravelly sandy loam soil series on the eastern portion of the project site, Kitsap silt loam soil series in the southwestern portion of the project site, and Urban land soil series in the northwestern portion of the project site. Alderwood gravelly sandy loam soils, Kitsap silt loam and Urban land soils are not listed as hydric soils on either the state or national hydric soils list, but Alderwood gravelly sandy loam soils potentially contain the following soil inclusions that are considered hydric: Norma and Shalcar soils and Kitsap silt loam soils potentially contain hydric soil inclusions such as Bellingham, Tukwila, and Seattle soils (NRCS 2016; U.S.D.A. Soil Conservation Service 1991, Federal Register 1995). Soil series boundaries or mapping units are mapped from aerial photographs with limited field verification. Thus, the location and extent of boundaries between mapping units may not be accurate for a given parcel of land within the survey area.

The USFWS (2023) NWI (Figure 3) does not identify any wetlands or streams on the project site, however, it depicts Lake Washington along the eastern property boundary as a lacustrine, limnetic system with an unconsolidated bottom and a permanently flooded water regime that is diked or impounded (L1UBHh). Wetlands, streams, and lakes shown on the NWI are general in terms of location and extent, as they are determined primarily from aerial photograph interpretation. Thus, the number and extent of existing wetlands located within the project area may differ from those marked on the NWI map.

The City of Mercer Island (2024b) GIS Portal (Figure 4) does not depict any watercourses within or adjacent to the project site.

The WDFW (2024) PHS map and NWIFC (2024) SWIFD map (Figures 5 and 6) identify steelhead, sockeye, coho, Resident Coastal Cutthroat, bull trout/dolly varden, chinook, and kokanee as present within Lake Washington.

The WDNR (2024) Forest Practices Application Map (Figure 7) depicts Lake Washington as a Type S water (shoreline of the state).

The King County (2024) iMap does not identify any wetlands or streams on or in the vicinity of the project site. The Washington Natural Heritage Program (2024) database contains no records of Natural Heritage Features (e.g., listed plant species or Natural Heritage wetlands) in the vicinity of the project site.

3.2 RESULTS OF FIELD INVESTIGATIONS

During our March 14, 2024 site investigation, we identified and delineated the shoreline of Lake Washington along the eastern boundary of the project site (Figure 8).

3.2.1 General Property Description

The project site is a developed property with facilities for the Herzl-Ner Tamid Congregation (Figure 8). There are paved driveways and landscaped gardens near the buildings. A forested area with walking trails is located on the western portion of the property. The property slopes down to the east toward Lake Washington. There is a sport court, picnic areas, and a lawn with trees on the eastern portion of the property with a parking lot in the southwest portion of the site.

The vegetation in the forested area on the western portion of the site consists of bigleaf maple (*Acer macrophyllum*, FACU), western red arborvitae (*Thuja plicata*, FAC), English ivy (*Hedera helix*, FACU), English holly (*Ilex aquifolium*, FACU), oso-berry (*Oemleria cerasiformis*, FACU), western sword fern (*Polystichum munitum*, FACU), Cascade Oregon-grape (*Mahonia nervosa*, FACU), and Himalayan blackberry (*Rubus armeniacus*, FAC) (Sample Plots 1 and 2). These areas do not meet the criteria for a hydrophytic plant community. Vegetation along the shoreline is dominated by a lawn with Kentucky blue grass (*Poa pratensis*, FAC), field water parsley (*Aphanes arvensis*, NI), great plantain (*Plantago major*, FAC), and woodland bittercress (*Cardamine flexuosa*, FAC) (Sample Plot 3). The shoreline contains a hydrophytic plant community but lacks wetland hydrology indicators.

Soils in the forested area on the western portion of the site consist of up to 9 inches of very dark brown (10YR 2/2) gravelly sandy loam soils over either dark grayish brown (10YR 4/2) gravelly sandy loam soils with dark yellowish brown (10YR 4/4) redoximorphic concentrations within the soil matrix or olive brown (2.5Y 4/3) gravelly sandy loam soils with dark yellowish brown (10YR 4/4) redoximorphic concentrations within the soil matrix with fire pedes and charcoal (Sample Plots 1 and 2). Soils along the shoreline consist of up to 9 inches of black (10YR 2/1) gravelly sandy loam soils with high organics such as bark and undecomposed wood over dark grayish brown (10YR 4/2) gravelly sandy loam soils with dark yellowish brown (10YR 4/6) redoximorphic concentrations within the soil matrix (Sample Plot 3). These soils contain indicators of hydric soils including Depleted Below Dark Surface (A11) and Depleted Matrix (F3) but lack wetland hydrology indicators.

During our March site visit, we did not observe primary or secondary indicators of wetland hydrology within any of the sample plots and thus they were determined to not meet wetland criteria (Sample Plots 1, 2, and 3). Typical indicators of wetland hydrology include; surface water, a high water table, or saturation as well as secondary indicators of hydric soil per the COE wetland delineation manual (Environmental Laboratory 1987) and regional supplement (COE 2010).

3.2.2 Lake Washington

We identified and delineated the Ordinary High Water Mark of Lake Washington along the eastern property boundary (Figure 8). According to Mercer Island (2024a) code, a 25-foot-wide shoreline setback is required from the OHWM of Lake Washington.

4.0 REGULATORY CONSIDERATIONS

4.1 FEDERAL CLEAN WATER ACT (CWA)

Federal law (Section 404 of the CWA) generally prohibits the discharge of dredged or fill material into waters of the United States, including certain wetlands and streams, without a permit from the COE (2021). We caution that the placement of fill within wetlands or other “Waters of the U.S.” without authorization from the COE is not advised, as the COE makes the final determination regarding whether surface water features would be regulated as waters of the U.S., or whether any permits would be required for any proposed alteration (COE 2021). Therefore, we recommend requesting a jurisdictional determination from the COE prior to construction of activities that may impact wetlands or streams. A jurisdictional determination would also provide evaluation and confirmation of our wetland delineation by the COE.

In the state of Washington, before proceeding with work under a COE-authorized permit, Section 401 of the CWA requires that the applicant receive notification that the Water Quality Certification/Coastal Zone Management Consistency Response has been approved, conditioned, or waived by the Washington State Department of Ecology (WDOE). The purpose of the CWA Section 401 is to ensure that federally permitted activities comply with the federal Clean Water Act, state water quality laws, and any other appropriate state laws (such as the Water Resources Act and Hydraulic Code). In addition, if the COE-authorized permit is for actions within the 15 coastal counties, including King County, then the WDOE must confirm or deny that the proposed action complies with the Washington Coastal Zone Management Program.

4.2 WASHINGTON STATE HYDRAULIC CODE

Prior to construction or other work that will use, divert, obstruct, or change the natural flow or bed of any state waters, the work must be approved by the Washington Department of Fish and Wildlife (WDFW) that it meets requirements of the State Hydraulic Code (RCW 75.20.100-140). The WDFW-administered Hydraulic Project Approval (HPA) is intended to protect fish life from damage by construction and other activities in all marine and fresh waters of the state.

4.3 CITY OF MERCER ISLAND CODE

City of Mercer Island (2024a) code regulates shorelines through the shoreline master program. Alterations of shorelines and their setbacks are generally prohibited, except as allowed under certain conditions. All direct shoreline impacts or shoreline setback impacts must be mitigated. The City of Mercer Island (2024a) has the final authority to determine shoreline setbacks, and allowed uses of wetlands, streams, their buffers, and other critical areas under their jurisdiction.

City of Mercer Island (2024a) code provides requirements for shoreline setbacks from the OHWM of Lake Washington. A 25-foot-wide shoreline setback is required for all structures.

5.0 PROPOSED PROJECT

During our site investigation, we delineated the OHWM of Lake Washington along the eastern boundary of the project site. Per Mercer Island City Code (2024a), a 25-foot-wide shoreline setback is required for all structures along Lake Washington. The shoreline and setback are located on the eastern portion of the project site (Figure 8).

The proposed project includes construction of a new structure for school facilities on the western portion of the project site (Figure 9). No impacts to Lake Washington or the shoreline setback are anticipated as a result of this project.

6.0 LIMITATIONS

We have prepared this report for the exclusive use of Herzl-Ner Tamid, EA Engineering, Science and Technology, Inc. and their consultants. No other person or agency may rely upon the information, analysis, or conclusions contained herein without permission from Herzl-Ner Tamid and EA Engineering, Science and Technology, Inc.

The determination of ecological system classifications, functions, values, and boundaries is an inexact science, and different individuals and agencies may reach different conclusions. With regard to wetlands, the final determination of their boundaries for regulatory purposes is the responsibility of the various agencies that regulate development activities in wetlands. We cannot guarantee the outcome of such determinations. Therefore, the conclusions of this report should be reviewed by the appropriate regulatory agencies.

We warrant that the work performed conforms to standards generally accepted in our field and prepared substantially in accordance with then-current technical guidelines and criteria. The conclusions of this report represent the results of our analysis of the information provided by the project proponent and their consultants, together with information gathered in the course of the study. No other warranty, expressed or implied, is made.

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FIGURES

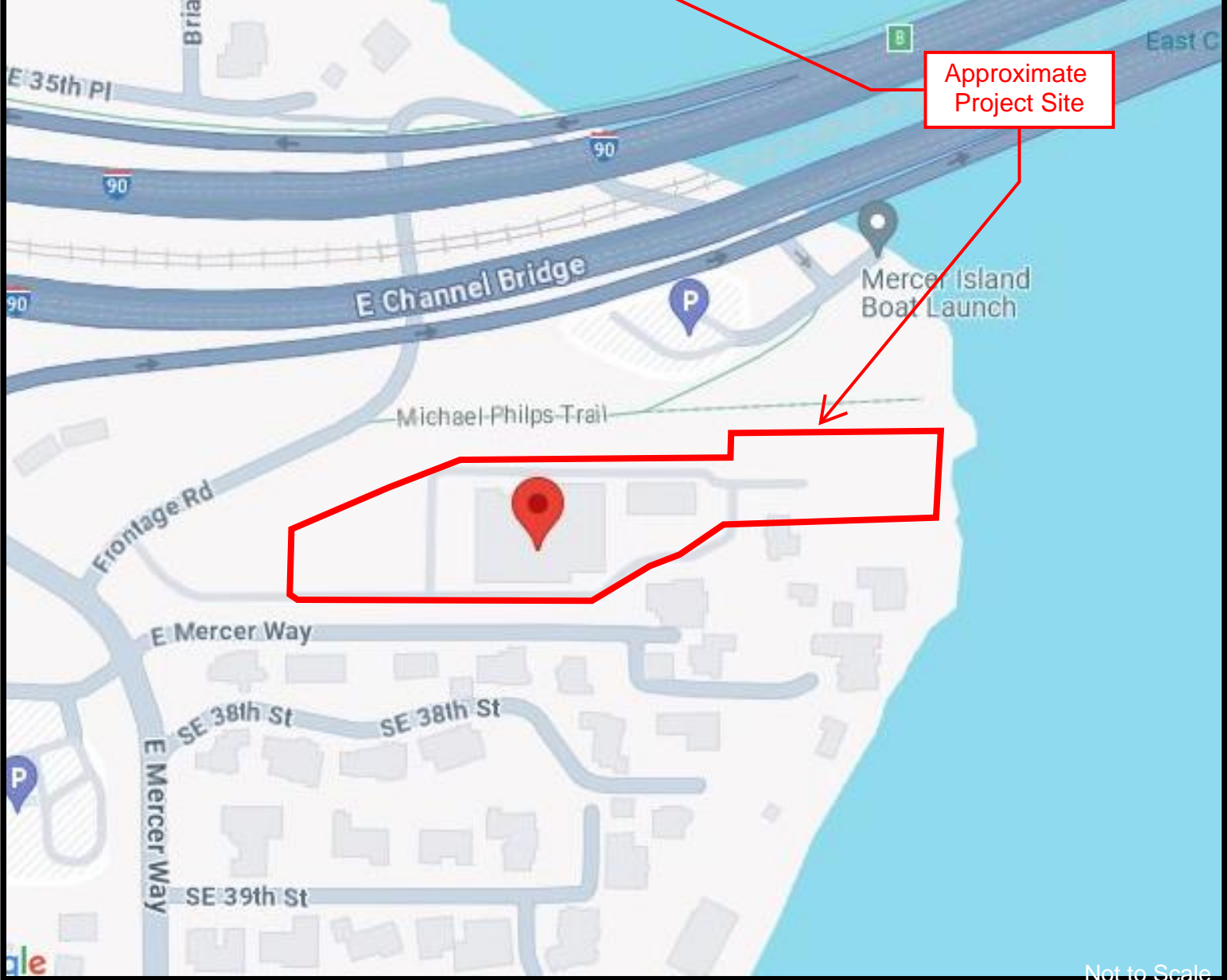
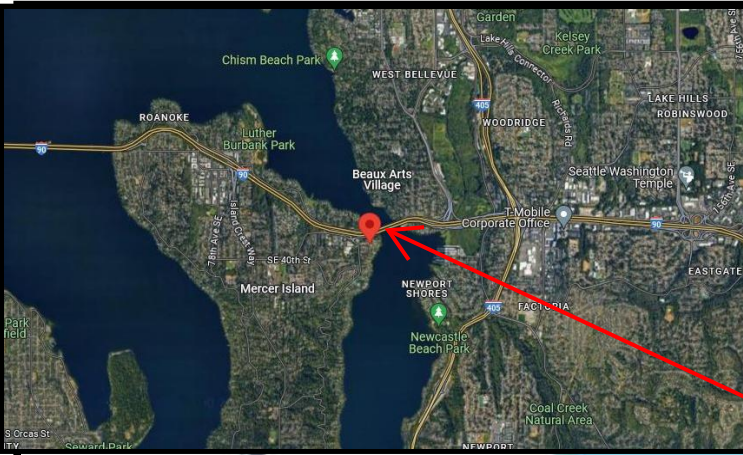


FIGURE 1 - Regional & Vicinity Map

3700 E Mercer Way, Mercer Island, WA

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PREPARED: 3/15/24

BY: SP



Raedeke
Associates, Inc.

2111 N. Northgate Way, Suite
219 Seattle, Washington 98133

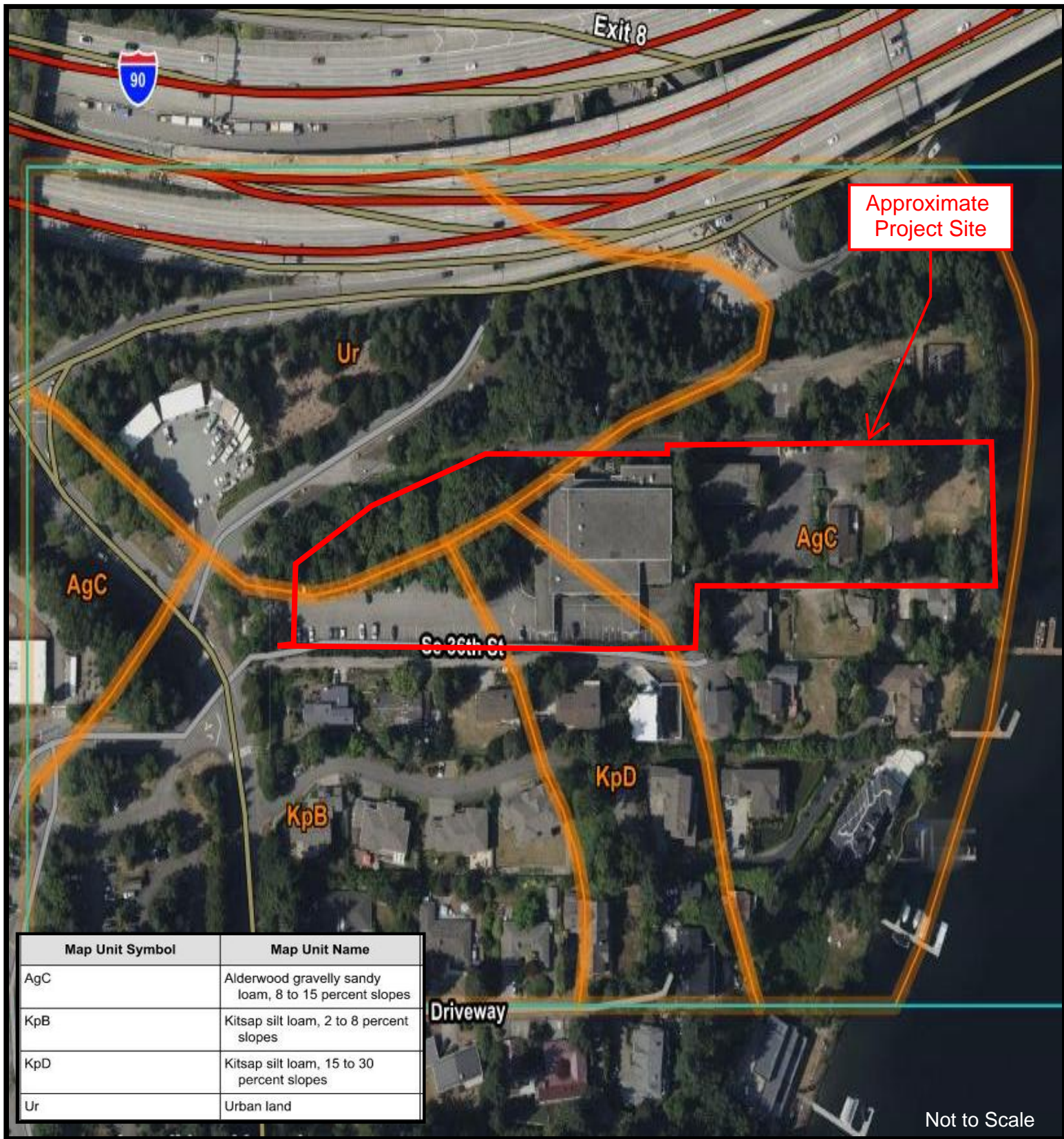


FIGURE 2 - NRCS Web Soil Survey

3700 E Mercer Way, Mercer Island, WA

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219 Seattle, Washington 98133

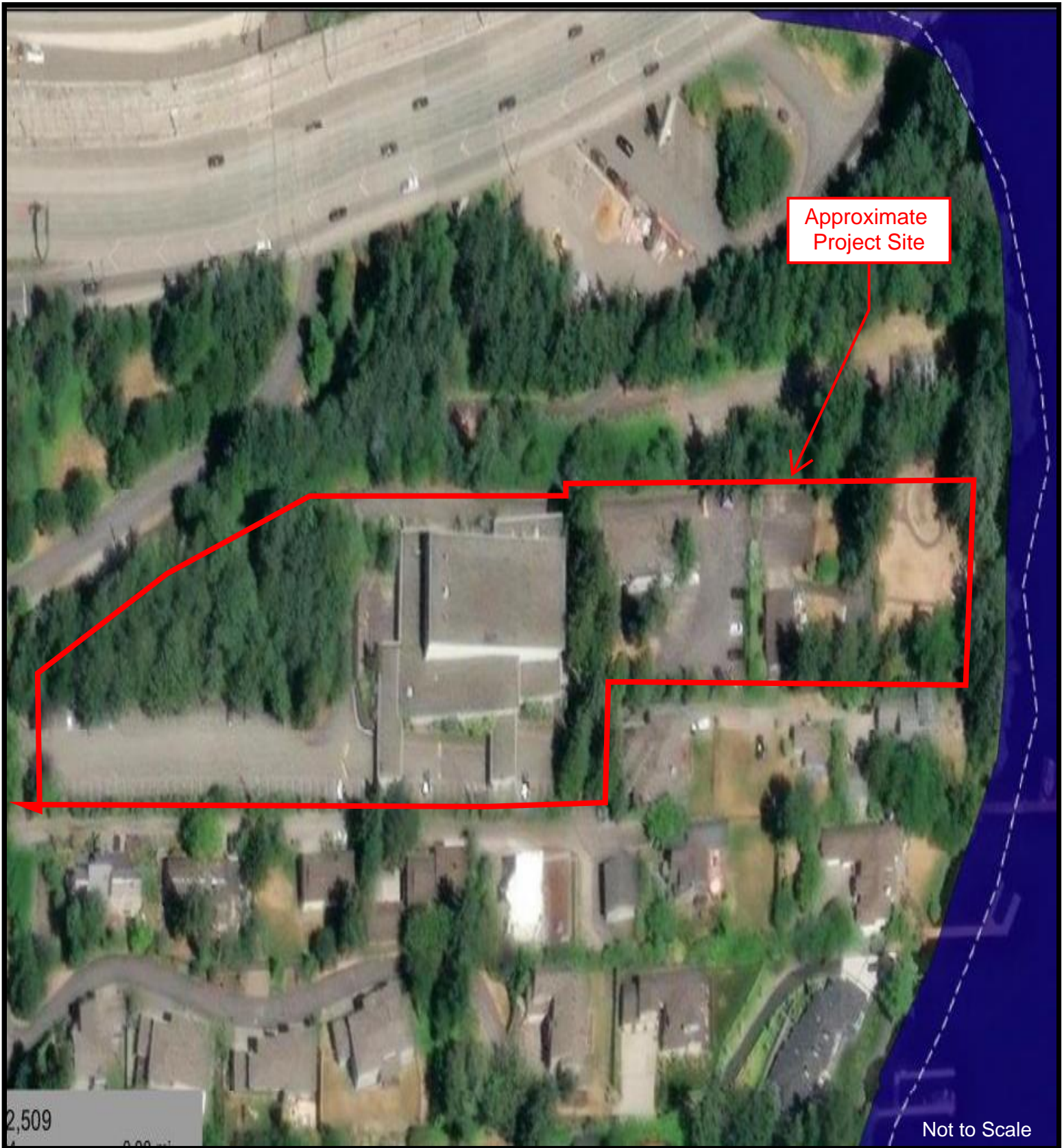


FIGURE 3 - National Wetland Inventory

3700 E Mercer Way, Mercer Island, WA
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- Wetlands**
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine



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FIGURE 4 - Mercer Island GIS Portal

3700 E Mercer Way, Mercer Island, WA

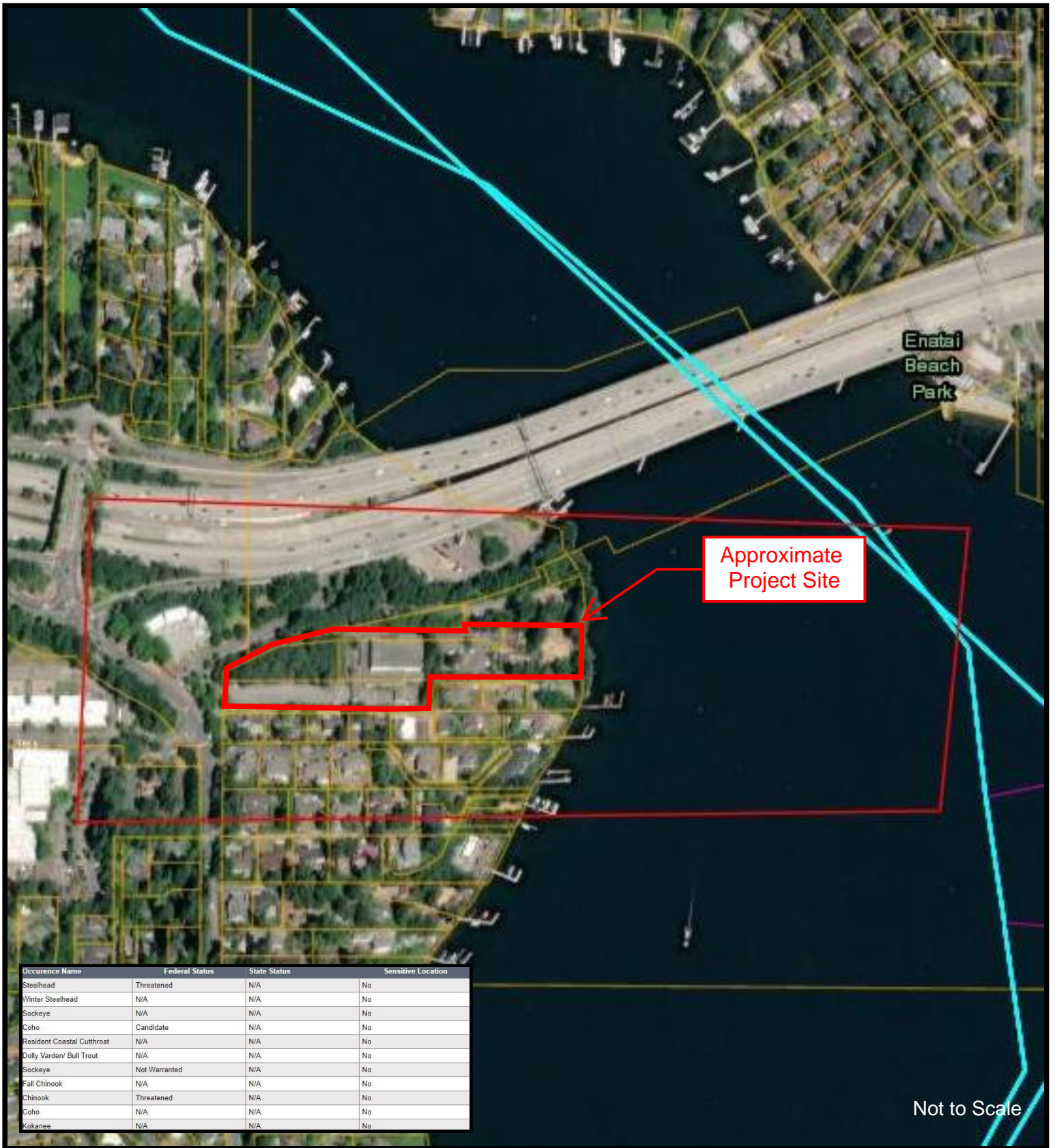
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BY: SP



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Legend:




 - Mapped Species or Habitat

FIGURE 5 - Priority Habitat & Species Map
 3700 E Mercer Way, Mercer Island, WA
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SOURCE INFORMATION: Washington Fish and Wildlife Priority Habitat & Species Online Mapping tool - <http://apps.wdfw.wa.gov/phsontheweb/>

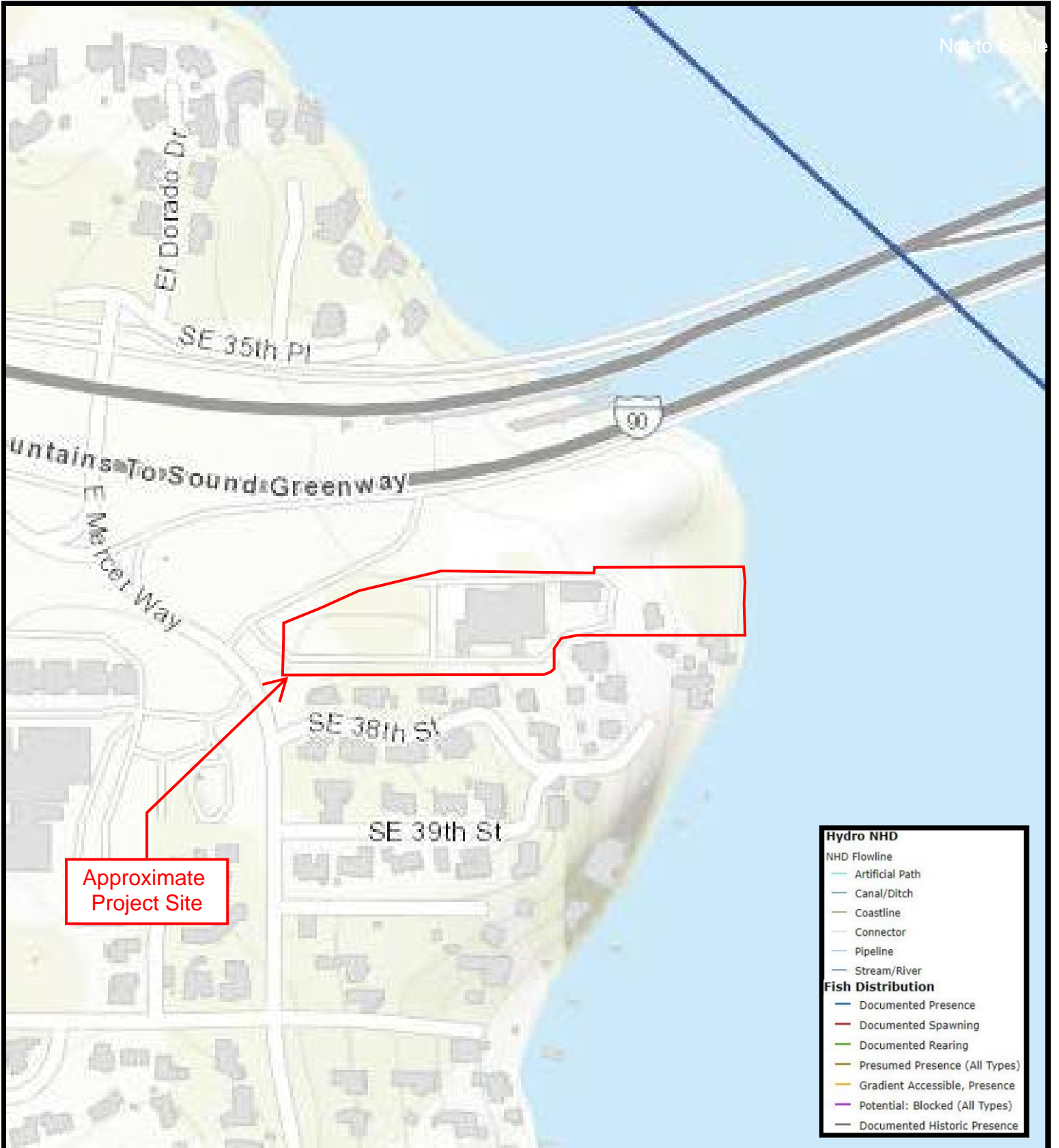


FIGURE 6 - NWIFC SWIFD Map

3700 E Mercer Way, Mercer Island WA

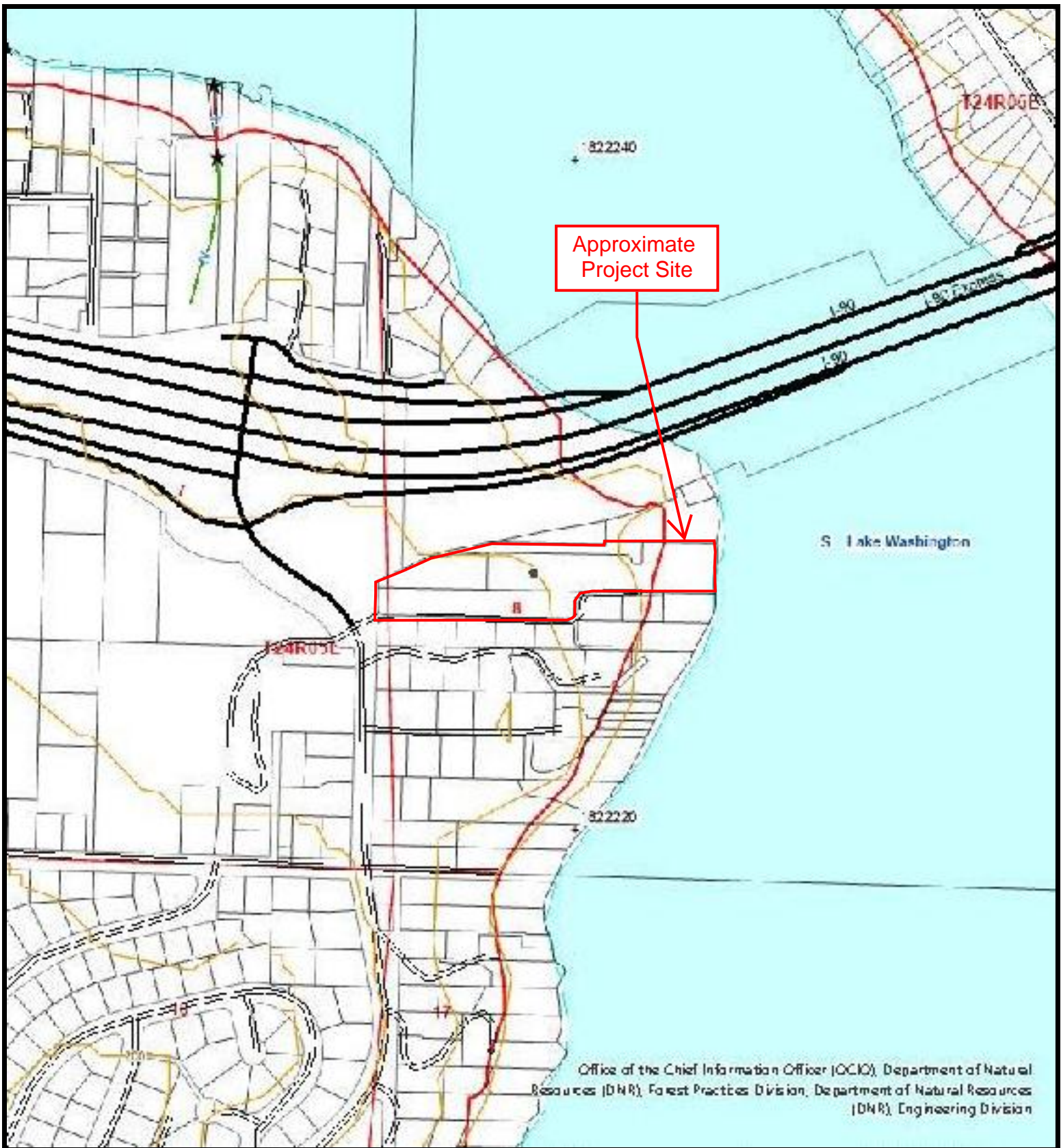
RAI PROJECT: 2023-081-001

PREPARED: 3/19/24

BY: CLS



2111 N. Northgate Way, Suite
219 Seattle, Washington 98133



- Streams
- Streams
- Type S
 - Type F
 - Type N, Np, Ns
 - U, unknown
 - X, non-typed per WAC 222-16

JRE 7 - DNR Forest Practices Application Map

3700 E Mercer Way, Mercer Island, WA

RAI PROJECT: 2023-081-001

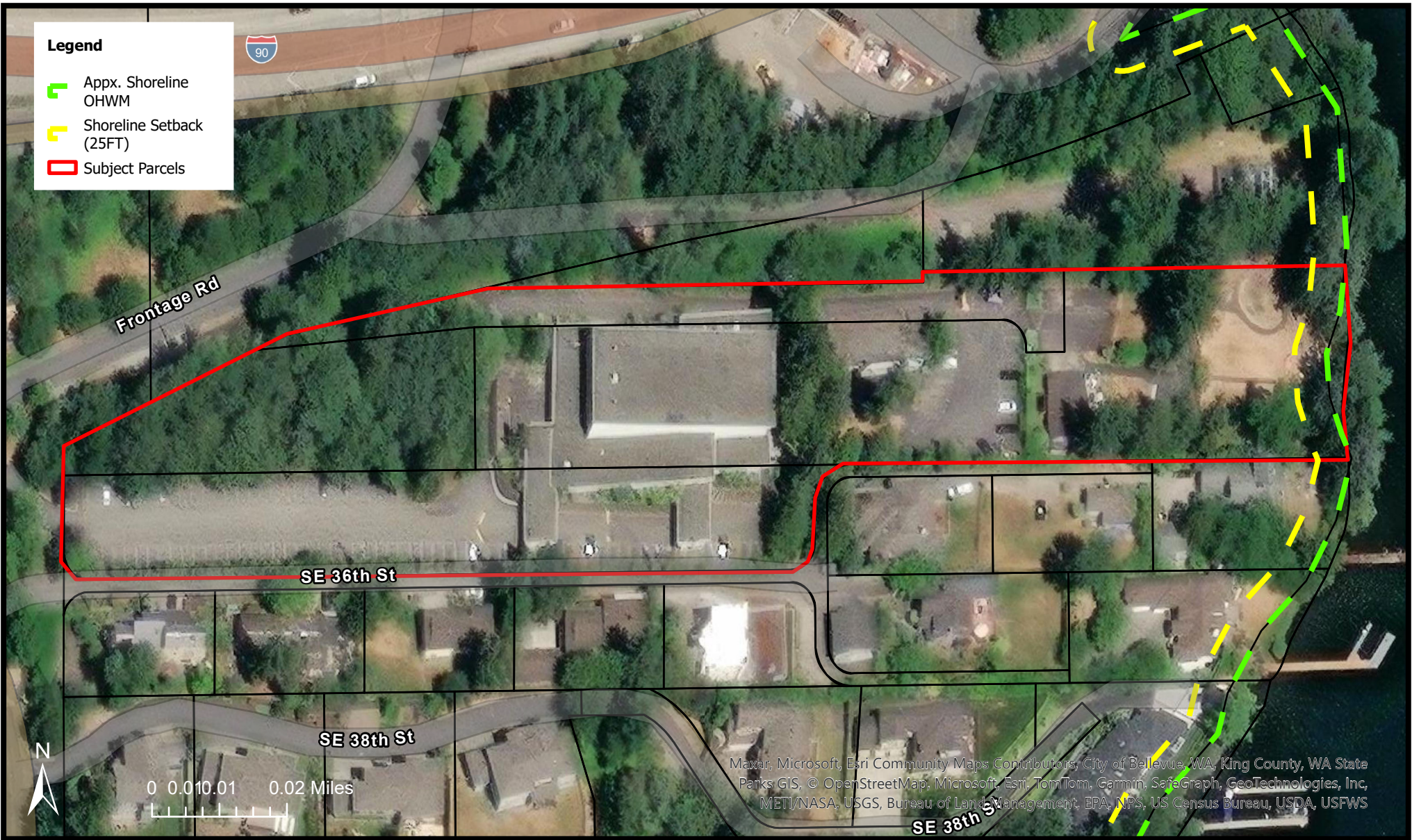
PREPARED: 3/18/24

BY: SP



Image source: <https://fpamt.dnr.wa.gov/2d-view#activity?-14542889,-12841706,5598471,6449673>

2111 N. Northgate Way, Suite
219 Seattle, Washington 98133



Herzl-Ner Tamid - Mercer Island

Figure 8 - Existing Conditions

RAI Project #: 2023-081

Created by: C. Straight

Date: 3-19-2024

Note: Features based on hand-held GPS unit and have not been surveyed. For planning purposes only.

PROJECT DATA

ADDRESS
3700 E MERCER WAY
MERCER ISLAND, WA 98040

OWNER
HERZEL-NER-TAMID CONSERVATIVE CONGREGATION

LEGAL DESCRIPTION
PARCEL A: (APN 082405-9045-07)
THAT PORTION OF GOVERNMENT LOT 11, SECTION 8, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON; TOGETHER WITH THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:
BEGINNING AT THE INTERSECTION OF THE WEST LINE OF GOVERNMENT LOT 11 WITH THE NORTH LINE OF DOYLE-HANSEN ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 75 OF PLATS, PAGE 24, RECORDS OF KING COUNTY, WASHINGTON;
THENCE SOUTH 89°09'34" EAST SLONG THE NORTH OF SAID DOYLE-HANSEN ADDITION, A DISTANCE OF 253.49 FEET TO THE WEST LINE OF LOT 7 OF CHANNEL CREST, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 72 OF PLATS, PAGE 63, RECORDS OF KING COUNTY, WASHINGTON;
THENCE NORTH 01°12'29" EAST ALONG SAID WEST LINE, A DISTANCE OF 111.48 FEET TO THE SOUTH LINE OF TRACT "A" OF SAID CHANNEL CREST, THENCE SOUTH 85°39'49" WEST ALONG SAID SOUTH LINE 173.15 FEET TO SOUTHEASTERLY LINE OF LAND CONVEYED TO STATE OF WASHINGTON TOLL BRIDGE AUTHORITY UNDER RECORDING NO. 3032009;
THENCE SOUTH 65°24'55" WEST ALONG SOUTHEASTERLY LINE TO THE EASTERLY MARGIN OF EAST MERCER WAY, AS CONVEYED TO KING COUNTY UNDER RECORDING NO. 923897;
THENCE SOUTH 01°02'29" WEST TO THE NORTH LINE OF SAID DOYLE-HANSEN ADDITION;
THENCE SOUTH 89°09'34" EAST ALONG SAID NORTH LINE 70.61 FEET TO THE POINT OF BEGINNING.

PARCEL B: (APN 210700-0010-06)
LOTS 1 THROUGH 5, INCLUSIVE, DOYLE-HANSEN ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 75 OF PLATS, PAGE 24, RECORDS OF KING COUNTY, WASHINGTON.

PARCEL C: (APN 151560-0010-06)
LOTS 1 THROUGH 7, INCLUSIVE, CHANNEL CREST, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 72 OF PLATS, PAGE 63, RECORDS OF KING COUNTY, WASHINGTON;

TOGETHER WITH AN UNDIVIDED 7/8THS INTEREST IN TRACT "A" OF SAID PLAT.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

ASSESSOR'S PARCEL NUMBER
0824059045, 1515600010, 2107000010, 151560TRCT

SCOPE OF WORK
CONSTRUCTION OF A 3-STORY SCHOOL AND OFFICE BUILDING.

3427 BEACON AVE S
SEATTLE 98144
ANJALI@AGRANTDESIGN.COM
206-512-4209
anjali grant design LLC

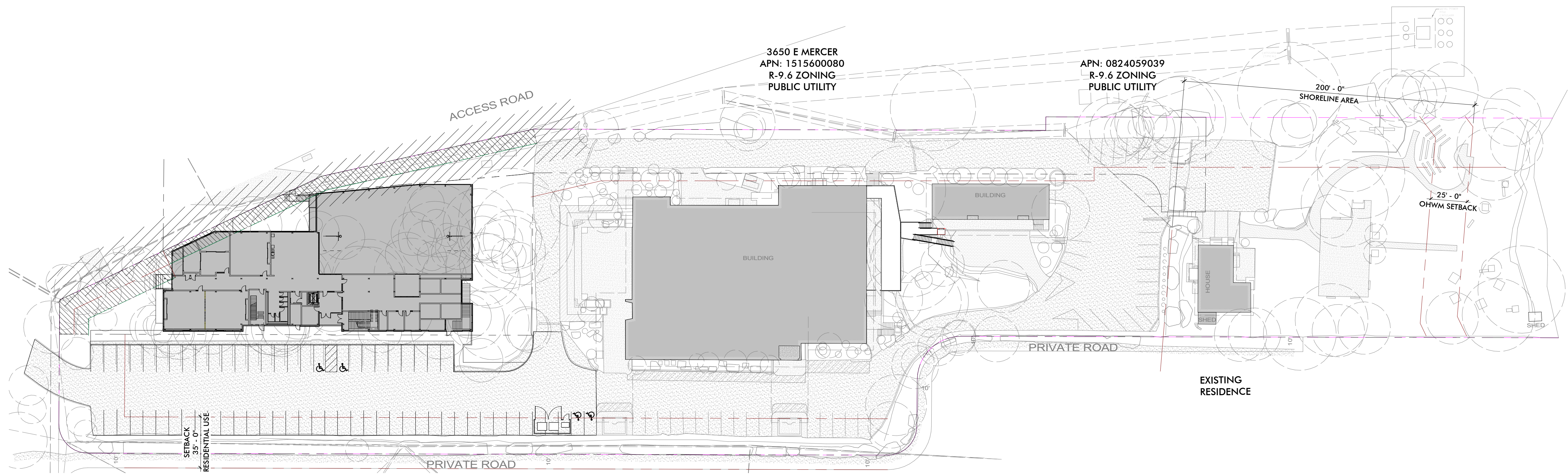
NOT FOR CONSTRUCTION

3700 E MERCER WAY
BARNABIE POINT K-8

NO.	DATE	DESCRIPTION
	2/6/2024	SD PRICING SET
PROJECT:		XXXX

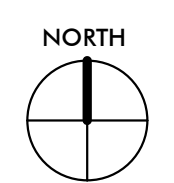
LAND USE/SITE PLAN

A-010



1 SITE PLAN-OVERALL
1" = 40'-0"

Figure 9 - Proposed Site Plan



3/12/2024 10:00:00 AM Autodesk Civil 3D 2024 - Anjali Grant Design, R24.rvt
© ANJALI GRANT DESIGN LLC ORIGINAL SHEET SIZE: 24" x 36"

APPENDIX A:

Field Survey Data

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Herzl-Ner Tamid City/County: Mercer Island Sampling Date: 3/14/24
 Applicant/Owner: Herzl-Ner Tamid State: WA Sampling Point: SP1
 Investigator(s): Courtney Straight, Annamaria Clark Section, Township, Range: S8,T24N,R05E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 5-7
 Subregion (LRR): LRR A Lat: 47.576876 Long: -122.205164 Datum: NAD83
 Soil Map Unit Name: Urban land NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: SP1 in forested area for future development in the north end.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: 5m)					
1. <u>Thuja plicata</u> (Western red cedar)	40	yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B)	
2. <u>Acer macrophyllum</u> (big leaf maple)	40	yes	FACU		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	80	= Total Cover			
Sapling/Shrub Stratum (Plot size: 3m)					
1. <u>Hedera helix</u> (English ivy)	30	yes	FACU	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>105</u> x 4 = <u>420</u> UPL species _____ x 5 = _____ Column Totals: <u>165</u> (A) <u>600</u> (B) Prevalence Index = B/A = <u>3.63</u>	
2. <u>Oemleria cerasiformis</u> (oso-berry)	30	yes	FACU		
3. <u>Rubus armeniacus</u> (Himalayan blackberry)	20	yes	FAC		
4. <u>Ilex aquifolium</u> (English holly)	5	no	FACU		
5. _____	_____	_____	_____		
	85	= Total Cover			
Herb Stratum (Plot size: 1m)					
1. <u>none</u>	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
	0	= Total Cover			
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
	_____	= Total Cover			
% Bare Ground in Herb Stratum _____					

Remarks: No hydrophytic vegetation observed

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Herzl-Ner Tamid City/County: Mercer Island Sampling Date: 3/14/24
 Applicant/Owner: Herzel-Ner Tamid State: WA Sampling Point: SP2
 Investigator(s): Courtney Straight, Annamaria Clark Section, Township, Range: S8,T24N,R05E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 3-5
 Subregion (LRR): LRR A Lat: 47.577036 Long: -122.204525 Datum: NAD83
 Soil Map Unit Name: Urban land NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: SP in western end of forested area.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>5m</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer macrophyllum (big leaf maple)</u>	<u>60</u>	<u>yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>60</u> = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>3m</u>)				
1. <u>Hedera helix (English ivy)</u>	<u>30</u>	<u>yes</u>	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>132</u> x 4 = <u>528</u> UPL species _____ x 5 = _____ Column Totals: <u>152</u> (A) <u>588</u> (B) Prevalence Index = B/A = <u>3.86</u>
2. <u>Rubus armeniacus (Himalayan blackberry)</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Oemleria cerasiformis (oso-berry)</u>	<u>2</u>	<u>no</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>52</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>1m</u>)				
1. <u>Polystichum munitum (sword fern)</u>	<u>40</u>	<u>yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>40</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Hydrophytic Vegetation Present? Yes No

Remarks: No hydrophytic vegetation observed

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/2	100					Gr.S.L	
9-13	2.5Y 4/3	95	10YR 4/4	5	C	M	Gr.S.L.	with charcoal and firepeds

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Herzl-Ner Tamid City/County: Mercer Island Sampling Date: 3/14/24
 Applicant/Owner: Herzel-Ner Tamid State: WA Sampling Point: SP3
 Investigator(s): Courtney Straight, Annamaria Clark Section, Township, Range: S8,T24N,R05E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave Slope (%): 3-5
 Subregion (LRR): LRR A Lat: 47.577013 Long: -122.201693 Datum: NAD83
 Soil Map Unit Name: Alderwood gravelly sandy loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Sample Plot is approximately 4 feet upslope of OHWM flag 1-4.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>5m</u>)					
1. <u>none</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. _____					
3. _____					
4. _____					
	<u>0</u>	= Total Cover			
Sapling/Shrub Stratum (Plot size: <u>3m</u>)					
1. <u>none</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
2. _____					
3. _____					
4. _____					
5. _____					
	<u>0</u>	= Total Cover			
Herb Stratum (Plot size: <u>1m</u>)					
1. <u>Poa pratensis (Kentucky blue grass)</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>		
2. <u>Aphanes arvensis (field water parsley)</u>	<u>15</u>	<u>no</u>	<u>NL</u>		
3. <u>Plantago major (great plantain)</u>	<u>5</u>	<u>no</u>	<u>FAC</u>		
4. <u>Cardamine flexuosa (woodland bittercress)</u>	<u>5</u>	<u>no</u>	<u>FAC</u>		
5. <u>Muscii sp (moss)</u>	<u>4</u>	<u>no</u>	<u>NL</u>		
6. <u>Urtica dioica (stinging nettle)</u>	<u>3</u>	<u>no</u>	<u>FAC</u>		
7. <u>Rumex crispus (curly dock)</u>	<u>2</u>	<u>no</u>	<u>FAC</u>		
8. <u>Geranium robertianum (lesser herb robert)</u>	<u>1</u>	<u>no</u>	<u>FACU</u>		
9. _____					
10. _____					
11. _____					
	<u>95</u>	= Total Cover			
Woody Vine Stratum (Plot size: _____)					
1. _____				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____					
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
% Bare Ground in Herb Stratum <u>5</u>					

Remarks: Aphanes arvensis (field water parsley) and Muscii sp. (moss) not included in analysis is WIS unknown.

