

Ecological No Net Loss Assessment Report

Prepared for

**Elizabeth Miller
4428 Ferncroft Rd
Mercer Island, WA 98040**

Prepared by



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March 2026

Purpose

The purpose of this report is to fulfill the requirements of City of Mercer Island Municipal Code Shoreline Master Program by assessing overall project impacts and proposed mitigation to determine if the project meets the “No Net Loss” General Regulation of the Shoreline Master Program.

No Net Loss is defined as “An ecological concept whereby conservation losses in one geographic or otherwise defined area are equaled by conservation gains in function in another area.”

Permits are being applied for a float plane lift installation.

Location

The subject property is located at 4428 Ferncroft Rd, Mercer Island, Washington (see Appendix A – Sheet 1 of 4). The parcel is on the waterfront of Lake Washington that contains several endangered fish species listed under the Endangered Species Act and Washington State designated priority fish species.

Project Description

The proposed work includes installation of new float plane lift. No new overwater coverage is proposed. The float plane lift is pre-fabricated off site and will set on the bottom from a barge mounted crane. Adjustments and any onsite fabrication will be completed as necessary.

A planting plan will be completed that includes native shrubs.

Project drawings are included in Appendix A sheets 1 of 4 to 4 of 4.

Approach

Northwest Environmental Consulting LLC (NVEC) biologist Brad Thiele conducted a site visit on March 23, 2026, to evaluate conditions on site and adjacent to the site. NVEC also consulted the following sources for information on potential critical fish and wildlife habitat along this shoreline:

- Washington Department of Fish and Wildlife (WDFW): Priority Habitats and Species online database (<http://apps.wdfw.wa.gov/phsontheweb/>)
- WDFW SalmonScope online database of fish distribution and ESA listing units (<https://apps.wdfw.wa.gov/salmonscape/>)
- Mercer Island GIS online database(<https://chgis1.mercergov.org/Html5Viewer/Index.html?viewer=PubMaps&viewer=PubMaps>)
- King County iMap (<https://gismaps.kingcounty.gov/iMap/>)

Site Description

The subject property is a shoreline tract in a residential neighborhood. It has shoreline on its eastern boundary with single-family homes on the North and South sides.

The only existing structures on the property are the house and the existing pier.

The shoreline is maintained as lawn to the edge of the gravel beach. A planting bed is maintained along the shore north of the dock and a small rock bulkhead is present between the dock and the property line. A concrete ramp is present on the beach south of the dock. Substrates along the beach are comprised of gravels and shifts to a sandy bottom about 5 feet from the water's edge. Lake substrates build up along the south side of the dock from skirting. Patchy Eurasian milfoil was present starting 30 to 45 feet from the dock.

The dock is decked with wood. The dock is configured with an ell and finger pier creating a moorage bay parallel to shore.

The property to the north is similar with a gravel beach and dock. The property to the south has an armored shoreline and dock. See Photos 1 through 6 in Appendix B.

Species Use and Online Mapping Summary

WDFW's PHS mapping and SalmonScape mapping tools show the following salmonid species using Lake Washington for migration and/or rearing: residential coastal cutthroat (*Oncorhynchus clarkii*), winter steelhead (*O. mykiss*), Dolly Varden/bull trout (*Salvelinus malma*), sockeye salmon (*O. nerka*), fall Chinook (*O. tshawytscha*), coho salmon (*O. kisutch*), and kokanee (*O. nerka*). The SalmonScape database maps the site as accessible to the Endangered Species Units (ESU) of Threatened Chinook and steelhead. Juveniles may rear in the waters near the project when traveling from spawning sites on other lake tributaries to the lake's outlet at the Locks. The project site is accessible to any fish migrating or rearing in the lake.

The shoreline is not mapped as a Sockeye spawning area by WDFW but a spawning area is located 600ft to the north and south of the project site.

WDFW PHS database shows an open space area is mapped more than 2,000 feet to the west of the site. No priority habitats are directly associated with the project site except for Lake Washington.

The Mercer Island GIS portal maps a piped watercourse bordering the northern property line. This was not observed in the field and may be present one more lot to the north.

Salmon Scape mapping tools shows 3 salmon bearing streams within 2.5 miles of the site Newport Creek and Coal Creek are approximately 1 mile to the northeast and Mercer Slough East approximately 1.3 miles to the northeast.

King County iMap shows no environmentally sensitive areas associated with the site except for Lake Washington. There is a wetland more than 2,500 ft to the west of the site.

Project Impacts and Conservation Measurements

Impacts are discussed based on project effects during installation of the float plane lift.

Direct Impacts:

Sediments: Sediment disturbance will occur below the OHWM and along the shoreline of Lake

Washington during installation of the lift. The boat lift will be placed on the bottom and care will be taken not to drag the lift on the bottom. Additionally, the tug and barge propwash may disturb sediments temporarily when making trips to/from the site. The actions are temporary and not expected to create significant turbidity.

The project will meet state water quality standards.

Shoreline: Planting native vegetation will increase the habitat functions of the shoreline by creating shade along the shoreline that will be an improvement from the existing baseline habitat conditions at the project site. The plantings will provide overhanging cover for fish, structural diversity for birds and wildlife, detritus for aquatic invertebrates and long-term source of allochthonous food sources. The proposed planting plan is included (see Appendix A - Sheet 4 of 4).

Noise: Construction equipment will create noise audible to neighbors. Noise disturbance will be short-term and should not affect fish and wildlife in the area. Work will be completed during the in-water work window when juvenile fish are not expected to be present.

Potential spills: Short-term risks include the potential for petroleum spills that can occur with any equipment operation. The potential level of impact to the aquatic environment is minimized because of spill containment measures and a crew trained in the use of BMPs should a spill occur.

Indirect Impacts:

Shading: The float plane lift is not considered a significant source of shading. The float plane lift will simply lift the plane out of the water and will allow more light under the plane when it is lifted than if floating in the water. Storing the plane above the water also reduces maintenance of the plane which can reduce cleaning materials and other hull maintenance materials from entering the water.

Cumulative Impacts:

Recreational Navigation: Based on typical limiting factor analyses for Lake Washington salmonids, sea planes are not commonly identified as a primary limiting factor. The lift will allow for floatplane use at the site which may cause some disturbances similar to recreational boats. The lift will not introduce additional float planes to Lake Washington, as the owners could still moor float planes at the pier without the lifts or at a commercial site.

Other Conservation measures:

In-lieu Fee: The shoreline on the subject property will be planted with native, overhanging vegetation. The project requires approval from the National Marine Fisheries Service (NMFS). NMFS has developed a calculator to determine appropriate mitigation costs for proposed in-water structures in Lake Washington. This calculator has established a fund that owners can pay into if they cannot find mitigation to offset impacts from the project. If the owner cannot complete the required mitigation at the subject property required by NMFS and the property owners will pay into the in-lieu fee program to mitigate project impacts. An in-lieu fee program is defined as follows:

“A program involving the restoration, establishment, enhancement, and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation requirements... Similar to a mitigation bank, an in-lieu fee program sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the in-lieu program sponsor.” (Fed. Reg. 40 CFR Part 230)

The fee has been determined using the Restoration and Permitting (RAP) Calculator for Lake Washington and will be paid to King County Water & Land Resources Division. The RAP program has funded restoration projects through the King County Conservation District. Project elements include removal of overwater structures, derelict pilings, including creosote, and restoration of Taylor Creek. <https://kingcounty.gov/en/dept/dnrp/nature-recreation/environment-ecology-conservation/wetlands/mitigation-reserves-program/restoration-and-permitting-program>

Work window: The work will be completed during the prescribed in-water work window for this area of Lake Washington (July 16 to December 31). Operating within this time frame helps protect Chinook salmon, steelhead, bull trout and other salmonid fish species by doing work when juvenile fish are not expected to be present.

Best Management Practices: Applicable BMPs will be used, such as a floating boom around the in-water work area, to contain any floating debris that may escape during construction. The barge will have a perimeter containment sock to absorb oil and grease that might inadvertently wash from the barge during construction.

Hazardous material containment supplies, such as spill absorbent pads, and trained personnel will be required onsite during any phase of construction where machinery is in operation near surface waters.

Impact Minimization and Mitigation

Reasonable efforts were made to apply mitigation sequencing when altering habitats within shoreline areas, as required by City of Mercer Island Shoreline Code. This sequence has three main steps: avoidance, minimization, and mitigate.

Avoidance and Minimization

The pier is an established use and the addition of the float plane lift is allowed by code. It is not possible to work in the lake and avoid impacts to the lake. Avoiding the impact would require that the float plane be moored to the existing dock. Use of the lift will allow more light under the plane and reduce maintenance of the floats that could increase use of cleaners or other materials from entering the lake. Using the lift is minimizing impacts over mooring float plane directly to the dock.

The lift installation is necessary to provide safe moorage.

The lift portion of the project is designed to minimize impacts to the aquatic environment by placing the lifts in the deepest water practicable at the site. During construction, BMPs will be used to prevent construction debris from entering Lake Washington. All construction debris will be removed from the site.

Additional avoidance and minimization measures include the following:

- No floats are proposed in the nearshore;
- Artificial night lighting on and from overwater structures will be minimized by focusing the light on the pier surface (not the water) and using shades that minimize illumination of the surrounding environment and reduces glare on the water surface. The visible light emitted by an individual fixture shall not exceed 450 lumens, and the total visible light emitted by all fixtures on a pier shall not exceed 2,700 lumens.

- No new boathouses are proposed;
- No new or replaced pier skirting is proposed;
- No use of treated wood for any in-water structures or components is proposed;
- No galvanized coated steel will be placed below the waterline.

Mitigation Approach

The shoreline will be planted 8 native shrubs and include native ground cover. The existing ornamental and native vegetation will be preserved.

The proposed planting meets the requirements of the RAP and no mitigation fee is required. The impacts of placing the lift are mitigated by the shoreline planting.

Shoreline Function and Values Improvements

Shoreline planting will increase the shoreline functions and values by adding native trees and shrub buffer between the house and Lake Washington that will increase screening, filtering of runoff, and vertical and overhanging structure along the lake edge, and will provide food sources for songbirds and other native fauna that use the Lake Washington shoreline.

Using float plane lifts will the use of cleaning chemicals because the watercrafts will be out of the water and require less maintenance. This will improve water quality functions.

Proposed Mitigation

Mitigation Goals

Mitigation goals will include the enhancement of the shoreline by planting with native plantings.

Performance Standards

Buffer plantings shall maintain a 100% survival for the first five years and be maintained in perpetuity per Corps requirements.

Planting Plan

Shrubs and groundcovers will be containerized or bare root. The planting layouts, details, and quantities are shown in Appendix A – Sheet 4 of 4.

Schedule and Maintenance

Plantings shall be installed in the same season or before completion of the dock construction. Watering should be completed for at least the first year after planting during the summer months, and any invasive plants removed.

Maintenance and Monitoring

The owner will maintain and monitor the plantings as required by the RAP program. The required report that will be sent to the Corps of Engineers, will also be sent to the City of Mercer Island when the reports are due annually if required.

Conclusion

Juvenile Chinook salmon, and other salmonids, rear and migrate along the Lake Washington shoreline.

There will be minor, temporary noise disturbance during installation of the lift and negligible sediment disturbance during construction. No change in overwater coverage is proposed, and the new float plane lift will be placed as far from shore as possible. Juvenile salmon tend to stay in shallower water, so this configuration will help minimize impacts to the aquatic environment.

The project will minimize construction effects on the aquatic environment by following the prescribed fish window and using applicable BMPs to prevent construction spills and debris from entering Lake Washington and allow for quick clean up if debris enter the lake or a spill occurs.

A shoreline planting plan will be implemented that will add 8 native shrubs that will improve natural shading, allochthonous food sources and will improve shoreline conditions at the site in the long-term.

The owner proposed mitigation is ample to meet the requirements of the RAP program administered by NMFS and no in-lieu fee is required.

This project has been designed to meet current residential moorage standards and will use Best Management Practices to reduce project impacts. The conservation measures are designed to improve ecological functions or prevent further degradation of habitat **and will result in No Net Loss of ecological functions.**

Document Preparers

Brad Thiele	Biologist	32 years of experience	Northwest Environmental Consulting, LLC. (NVEC)
Mary Powers	Biologist	20 years of experience	

The conclusions and findings in this report are based on field observations and measurements and represent our best professional judgment and to some extent rely on other professional

service firms and available site information. Within the limitations of project scope, budget, and seasonal variations, we believe the information provided herein is accurate and true to the best of our knowledge. Northwest Environmental Consulting does not warrant any assumptions or conclusions not expressly made in this report, or based on information or analyses other than what is included herein.

REFERENCES

US Army Corps of Engineers (USACE). 2015. Final Biological Evaluation, Regional General Permit: Construction of New or Expansion of Existing Residential Overwater Structures and Driving of Moorage Piling. Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal, in the State of Washington.

Washington Department of Fish and Wildlife (WDFW). 2026. Priority Habitats and Species. Online database. Accessed March 2026 at <http://apps.wdfw.wa.gov/phsonthweb/>

WDFW. 2026. SalmonScape. Online database. Accessed March 2026 at <http://apps.wdfw.wa.gov/salmonscape/>

Mercer Island GIS online database accessed March 2026 at <https://chgis1.mercergov.org/Html5Viewer/Index.html?viewer=PubMaps&viewer=PubMaps>

King County iMap accessed March 2026 at <https://gismaps.kingcounty.gov/iMap/>

Appendix A: Project Drawings

PROJECT INFORMATION

APPLICANT:
ELIZABETH MILLER

DRAWINGS BY:
ECCO DESIGN INC.
7413 GREENWOOD AVE N
SEATTLE, WA 98103
206-706-3937

SITE ADDRESS:
4428 FERNCROFT RD
MERCER ISLAND, WA 98040

PARCEL NUMBER:
004610-0301

BODY OF WATER:
LAKE WASHINGTON

LEGAL DESCRIPTION:
ADAMS LAKE WASHINGTON TRS "PARCEL B"
TGW SHORE LANDS ADJ MERCER ISLAND LOT
LINE REVISION NO M.I. SUB 05-011 REC NO
20060607900012 BEING A POR OF TRACT 4 OF
ADAMS LAKE WASHINGTON TRACTS LY ELY OF
C/L OF FERNCROFT COMMUNITY ROAD (ROAD
ESMT UNDER REC NO 5999004)
PLAT LOT: 4

PROJECT DESCRIPTION:
INSTALL A FLOAT PLANE LIFT.

VICINITY MAP



REFERENCE:

DATUM: C.O.E. Locks Datum

ADJACENT PROPERTY OWNERS:

1. Elizabeth Miller
2. Robert Kessler

APPLICANT: Elizabeth Miller

LOCATION: 4428 Ferncroft Rd
Mercer Island, WA 98040

LAT/LONG: 47.566356°/-122.207177°

PROPOSED PROJECT:

Float Plane Lift

IN: Lake Washington

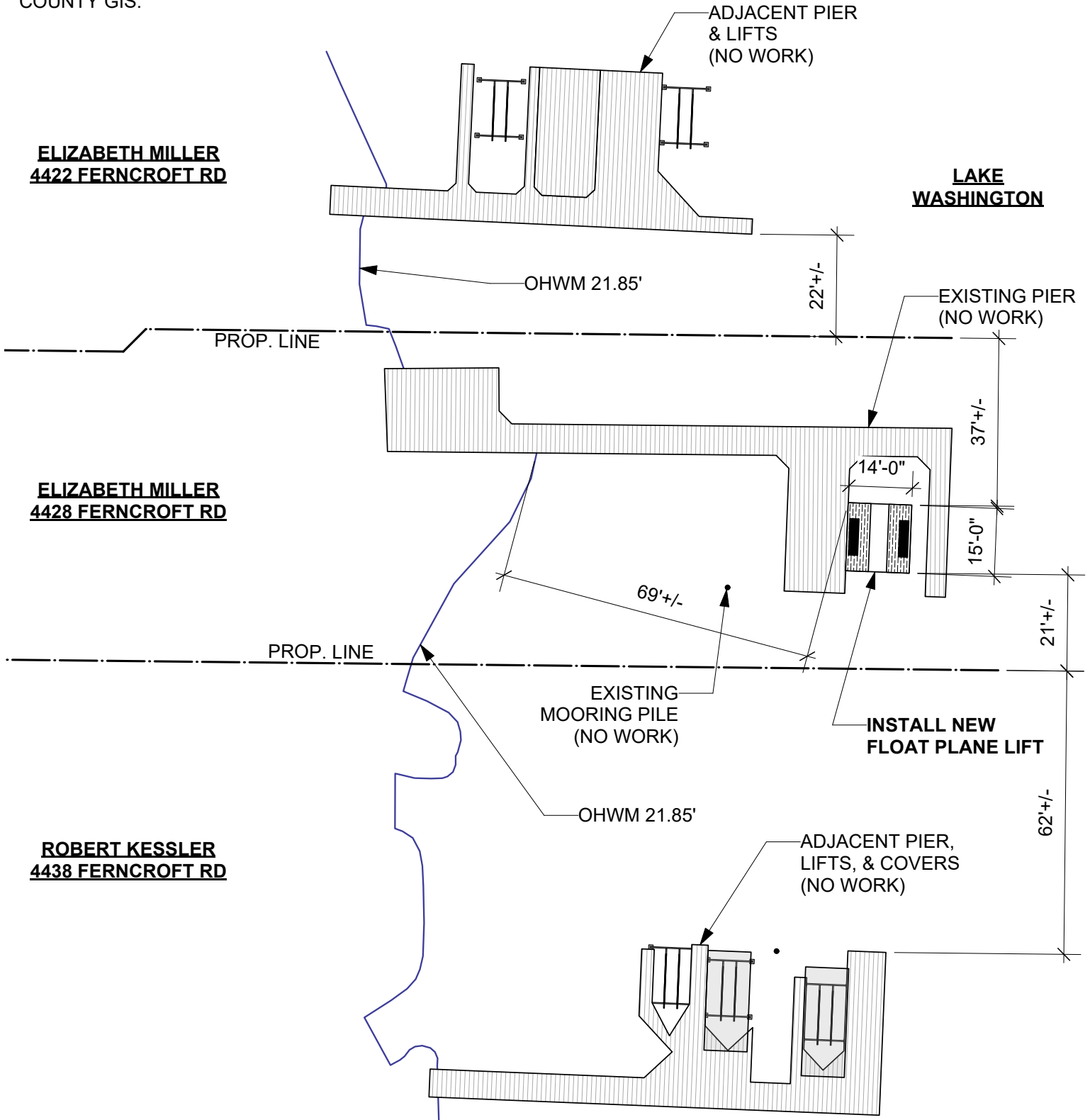
NEAR/AT: Mercer Island

COUNTY: King STATE: WA

SHEET 1 of 4

DATE: April 23, 2026

PLEASE NOTE THAT THE SHORELINE CONFIGURATION AND PROPERTY LINE LOCATIONS ARE APPROXIMATE ONLY. PROPERTY LINES ARE BASED ON KING COUNTY GIS.



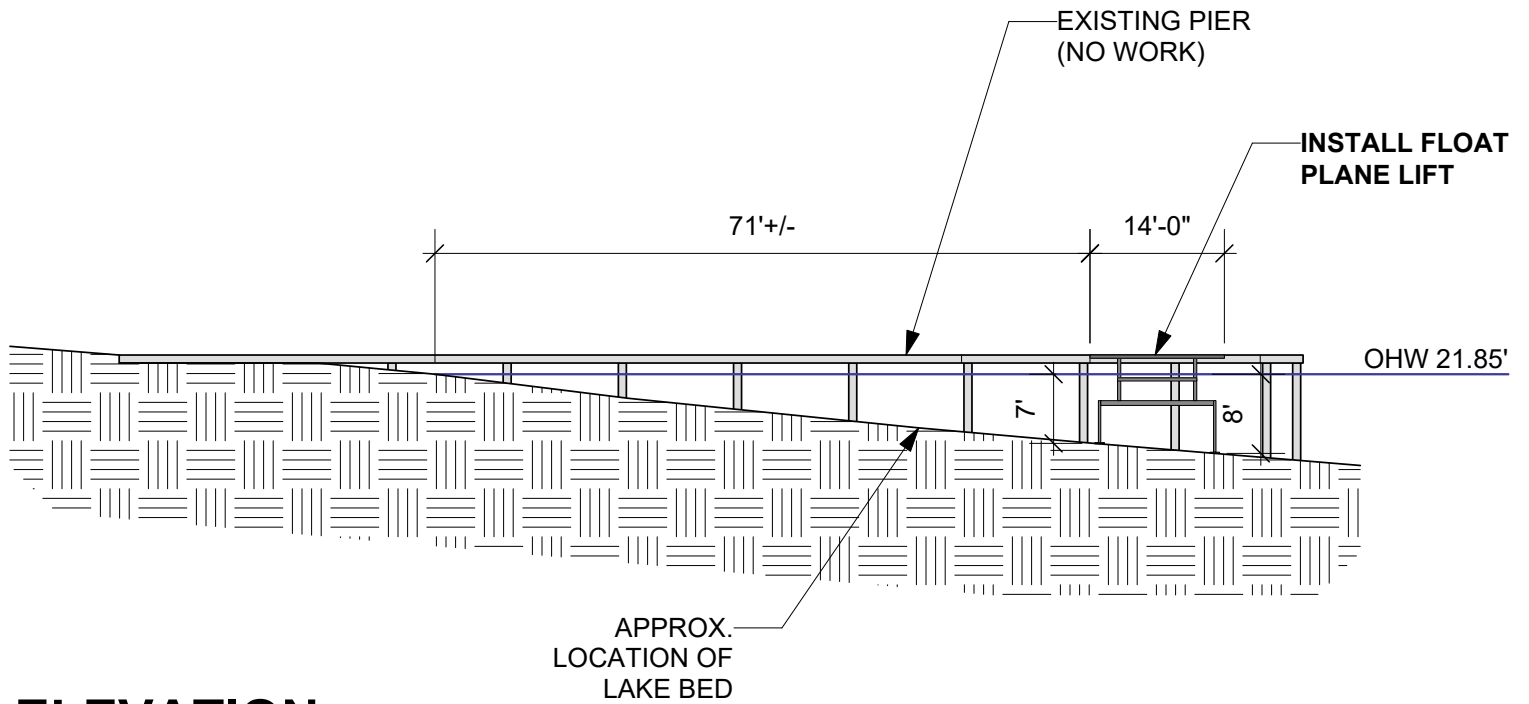
SITE PLAN

SCALE 1" = 30'-0"



Reference:
Applicant: Elizabeth Miller

Proposed: Float Plane Lift
Location: Mercer Island, WA



ELEVATION

SCALE 1" = 20'-0"








Reference:
Applicant: Elizabeth Miller

Proposed: Float Plane Lift
Location: Mercer Island, WA

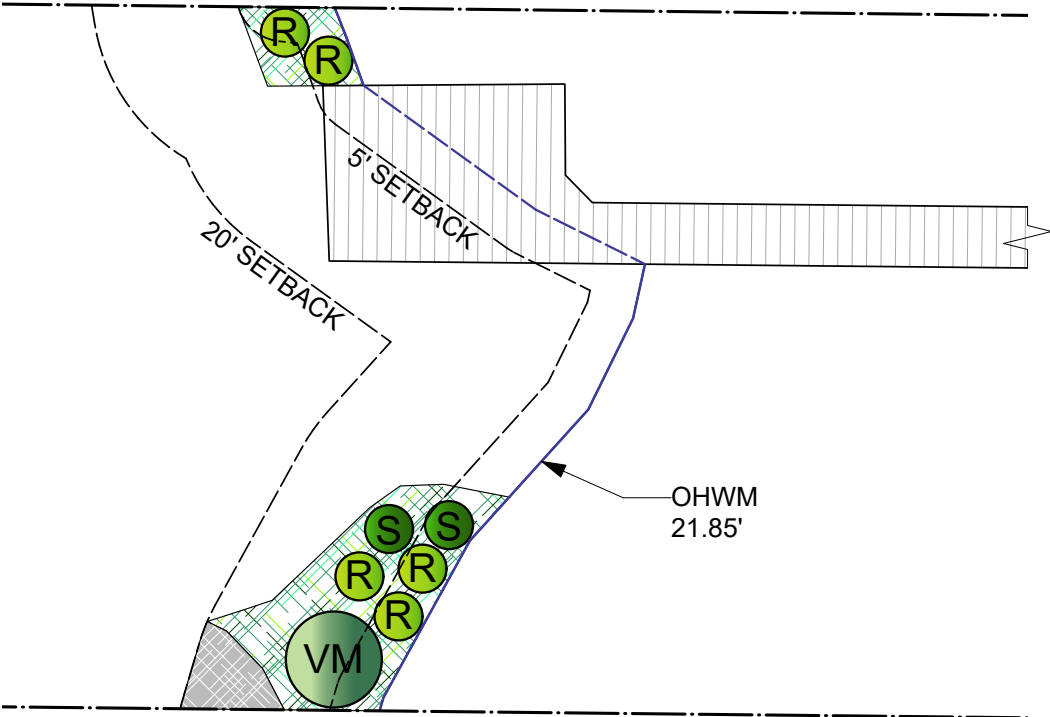
PLANTING LEGEND

NOTE: SHRUBS TO BE PLANTED AT 5' ON CENTER MINIMUM AND TREES TO BE PLANTED AT 10' ON CENTER MINIMUM.

-  VINE MAPLE (1 TOTAL)
-  SNOWBERRY (4 TOTAL)
-  RED-FLOWERING CURRANT (3 TOTAL)
-  BEACH STRAWBERRY GROUND COVER (@ 18" O.C.)
-  EXISTING NON-NATIVE PLANTINGS

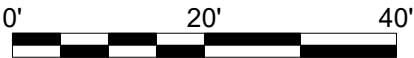
PLANTING COVERAGE CALCULATIONS

NATIVE PLANT COVERAGE WITHIN THE 5' SETBACK = 38%
 PLANT COVERAGE WITHIN THE 20' SETBACK = 25%



PLANTING PLAN

SCALE 1" = 20'-0"



Reference:
 Applicant: Elizabeth Miller

Proposed: Float Plane Lift
 Location: Mercer Island, WA

Appendix B: Site Photographs



Photo 1 - Existing dock looking waterward.



Photo 2 - Existing dock looking landward.



Photo 3 - Existing shoreline north of dock.



Photo 4 - Existing shoreline south of dock.



Photo 5 - Existing conditions along lake north of the site.



Photo 6 - Existing conditions along lake south of site.