



December 23, 2021

De Calvert
5335 Butterworth Road
Mercer Island, WA 98040

and

Walther Goe
5325 Butterworth Road
Mercer Island, WA 98040

**RE: Stream Determination Report and Significant Tree Inventory for King County
Tax Parcel 8661400101**

SITE DESCRIPTION

Wetland Resources, Inc. (WRI) conducted a site investigation on November 5, 2021, on the 0.43-acre parcel reference above. The site is located between 5325 and 5335 Butterworth Road, in the City of Mercer Island, WA. It is further located as a portion of Section 19, Township 24N, Range 5E, WM. The purpose of this investigation was to classify a stream that flows through the subject property and also identify significant trees.

The site is accessed from the north via Butterworth Road. No Structures are currently located within the boundary of the subject property and surrounding land use is generally high intensity residential (greater than one unit per acre). Vegetation is generally dominated by: large Douglas Fir, big-leaf maple, and hazelnut trees with an understory of: salmonberry, vine maple blackberry, English ivy, swordfern, and Oregon grape. Topography is a steep north aspect slope terminating at the on-site stream. Portions of the steep slopes are in excess of 33 percent.

A perennial stream is located between the toe of the steep slope and Butterworth Road on the northern quarter of the property. It originates well off-site to the west and across East Mercer. This stream flows from west to east, eventually through a constructed channel and into Lake Washington. None of the existing available resources indicate that there is fish usage within the on-site stream. The on-site portion of the stream is generally between three to four feet wide and has an average gradient to Lake Washington of less than 12 percent.

REVIEW OF EXISTING INFORMATION

Prior to conducting the site investigation, publicly available information was reviewed to gather

background information on the subject property and the surrounding area in regard to wetlands, streams, and other critical areas. These sources include the following:

- WDNR Forest Practices Application Mapping Tool (FPAMT):
WDNR maps the on-site stream reach as a Type N. Approximately 25 feet downstream of the site the stream mapping changes to a Type F at the location of a vertical drop structure. WDFW Washington State Fish Passage Mapping Tool:
This resource indicates that a culvert located upstream of the site near East Mercer Way is a complete barrier to fish passage. No barriers are identified downstream of the site.
- WDFW Priority Habitat and Species (PHS) Interactive Map:
The PHS Interactive Map does not depict the on-site stream.
- WDFW Salmonscape Interactive Map:
Salmonscape maps do not identify fish usage within the on-site stream.
- City of Mercer Island GIS Portal:
The GIS Portal identifies the stream as being fish-bearing (Type F) downstream of the vertical drop structure and a perennial stream (Type Np) upstream and crossing the subject property.

CRITICAL AREA FINDINGS

The City of Mercer Island defines fish habitat as “Habitat which is used by any fish at any life stage at any time *of* the year, including potential habitat likely to be used by fish which could be recovered by restoration or management and includes off-channel habitat”.

The on-site portion of the stream is generally between three to four feet wide and has an average gradient to Lake Washington of less than 12 percent. The vertical catch basin located downstream of the site provides an artificial barrier to fish passage. However, at the time of the site visit, the entirety of the streamflow was bypassing the catch basin to the north providing a direct natural water connection to Lake Washington. Provided there is no barrier to fish passage, the on-site stream meets the definition of fish habitat and therefore is classified as a Type F Watercourse. Type F Watercourses are designated 120-foot protective buffer from their flagged ordinary high water mark.



View of catch basin looking east. Note water flowing through a break in the wall around the catch basin.



Stream condition near the eastern property boundary looking east.

TREE EVALUATION

A preliminary evaluation of potential impacts to significant trees was conducted during the site investigation. In addition, all significant trees were located as part of the formal site survey. The following table identified significant trees directly impacted, or potentially impacted from the construction of an access road.

Common Name	Scientific Name	DBH
Horse chestnut	<i>Aesculus hippocastanum</i>	15"
Douglas fir	<i>Pseudotsuga menziesii</i>	38"
Red Alder	<i>Alnus rubra</i>	7" and 10"
Big-leaf maple	<i>Acer macrophyllum</i>	8", 26" and 48"

USE OF THIS REPORT

This Stream Determination Report and Preliminary Tree Evaluation is supplied to De Calvert and Walther Goe as a means of determining the presence and classification of streams near the subject property. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

This report conforms to the standard of care employed by ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.

Scott Brainard, PWS
Principal Wetland Ecologist