

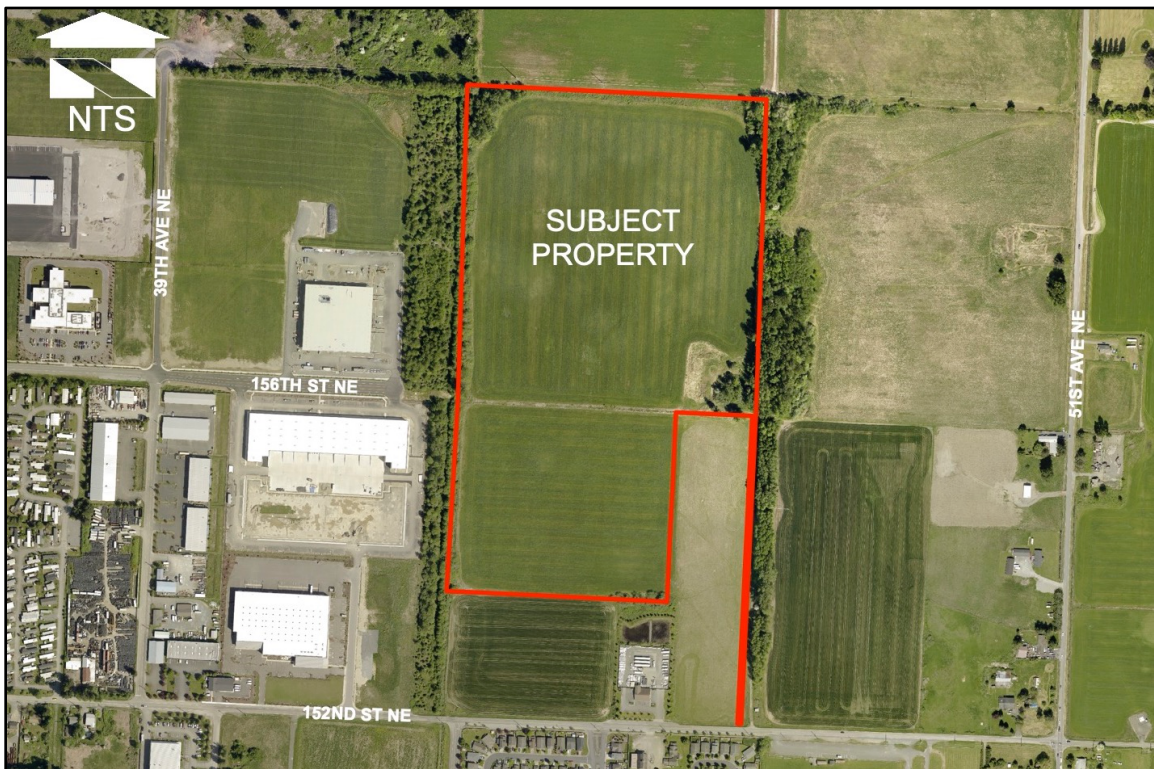


June 20, 2022

PacTrust  
Attn: Matt Oyen P.E.  
15350 SW Sequoia Parkway, #300  
Portland, OR 97224

**RE: Stream Determination Report for Marysville Corporate Center  
Parcels 31052800400300 & 31053300100700**

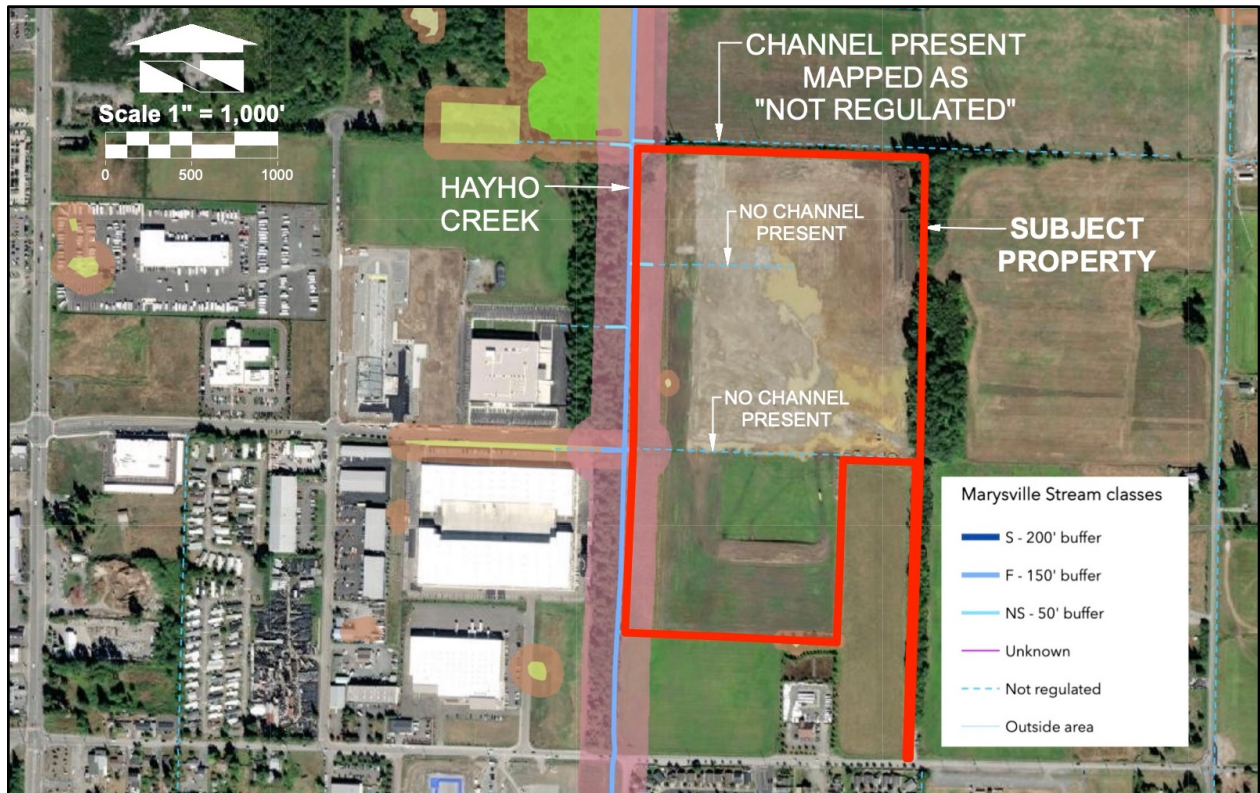
Wetland Resources, Inc. (WRI) conducted a site investigation in May, 2022, on the 56.24-acre parcel assemblage reference above. The purpose of the site investigation was to classify an off-site channel that occurs along the northern boundary of the site in response to review comments by City of Marysville. The site is located at 15908 47<sup>th</sup> Avenue NE, in the city limits of Marysville, Washington (Sections 28 & 33, Township 31N, Range 5E, W.M.). Hayho Creek flows south along the western property boundary. This stream drains to the Middle Fork Quilceda Creek, within the Snohomish River watershed (WRIA 7).



**Figure 1:** Aerial photograph of subject property.

The subject property lies in an historic agricultural area. The General Land Office (GLO) map from 1875 shows much of the site was located within a large wetland complex that continued off-site to the north, south, and east, covering several square miles. Hayho Creek and a series of smaller, linear drainage ditches were constructed in the 1930's to drain the area for farming.

Hayho Creek is mapped as a Type F stream on the City of Marysville's Online Critical Areas map. Type F streams in Marysville require 150-foot buffers pursuant to Marysville Municipal Code (MMC) 22E.010.220(1)(a). The lateral drainage ditches, which were constructed to convey surface water to Hayho Creek, are mapped by the City of Marysville as "Not regulated."



**Figure 2:** City of Marysville's Online Critical Areas Map with notations.

Two of the lateral ditches are mapped within the subject property and a third is mapped off-site along the northern property boundary. The two ditches mapped on site are no longer present. The northern on-site ditch was eliminated long ago as part of agricultural operations. The southern on-site ditch was filled as part of a permit from the US Army Corps of Engineers (NWS-2012-912). The off-site lateral ditch along the northern property boundary is still present. It is approximately three feet wide and was mostly dry at the time of our May visit, but signs of recent flow were present.



**Figure 3:** Photograph of the lateral ditch off-site to the north of the subject property.

**STREAM CLASSIFICATIONS**

Washington State Department of Fish and Wildlife (WDFW)

WDFW classifies channel systems under the state water typing system found in WAC 222-16-030. The subject channel is greater than two feet wide, has a gradient that is less than 16 percent, and does not contain a natural barrier to fish passage. As such, it meets the Type F classification under the state classification system.

City of Marysville

Marysville Municipal Code contains the same stream classification system (WAC 222-16-030), but also contains a definition for what qualifies as a stream within the city limits. The stream classification system and the definition of “stream” are provided in MMC 22A.020.200, as follows:

*“Streams” means water contained within a channel, either perennial or intermittent, and classified according to locally appropriate stream classification system based on WAC 222-16-030. Streams also include open natural watercourses modified by man. Streams do not include irrigation ditches, waste ways, drains, outfalls, operational spillways, channels, storm water runoff facilities or other wholly artificial watercourses, except those that directly result from the modification to a natural watercourse. Streams are further characterized as follows:*

(1) *Type S Stream.* Those streams, within their ordinary high water mark, as inventoried as “shorelines of the state” under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW.

(2) *Type F Stream.* Those stream segments within the ordinary high water mark that are not Type S streams, and which are demonstrated or provisionally presumed to be used by salmonid fish. Stream segments which have a width of two feet or greater at the ordinary high water mark and have a gradient of 16 percent or less for basins less than or equal to 50 acres in size, or have a gradient of 20 percent or less for basins greater than 50 acres in size are provisionally presumed to be used by salmonid fish. A provisional presumption of salmonid fish use may be refuted at the discretion of the community development director where any of the following conditions are met:

- (a) It is demonstrated to the satisfaction of the city that the stream segment in question is upstream of a complete, permanent, natural fish passage barrier, above which no stream section exhibits perennial flow;
- (b) It is demonstrated to the satisfaction of the city that the stream segment in question has confirmed, long-term, naturally occurring water quality parameters incapable of supporting salmonid fish;
- (c) Sufficient information about a geomorphic region is available to support a departure from the characteristics described above for the presumption of salmonid fish use, as determined in consultation with the Washington State Department of Fish and Wildlife, the Department of Ecology, affected tribes, or others;
- (d) The Washington State Department of Fish and Wildlife has issued a hydraulic project approval pursuant to RCW 77.55.100 that includes a determination that the stream segment in question is not used by salmonid fish;
- (e) No salmonid fish are discovered in the stream segment in question during a stream survey conducted according to the protocol provided in the Washington Forest Practices Board Manual, Section 13, Guidelines for Determining Fish Use for the Purpose of Typing Waters under WAC 222-16-031, provided no unnatural fish passage barriers have been present downstream of said stream segment over a period of at least two years.

(3) *Type Np Stream.* Those stream segments within the ordinary high water mark that are perennial and are not Type S or Type F streams. However, for the purpose of classification, Type Np streams include the intermittent dry portions of the channel below the uppermost point of perennial flow. If the uppermost point of perennial flow cannot be identified with simple, nontechnical observations (see Washington Forest Practices Board Manual, Section 23), then said point shall be determined by a qualified professional selected or approved by the city.

(4) *Type Ns Stream.* Those stream segments within the ordinary high water mark that are not Type S, Type F, or Type Np streams. These include seasonal streams in which surface flow is not present for at least some portion of a year of normal rainfall that are not located downstream from any Type Np stream segment.

The third sentence within the definition of “stream” reads as follows: “Streams do not include irrigation ditches, waste ways, drains, outfalls, operational spillways, channels, storm water runoff facilities or other wholly artificial watercourses, except those that directly result from the modification to a natural watercourse.” The subject channel is an artificial drainage course that was constructed to provide conveyance of surface water from agricultural lands, as evidenced by the consistent width and linear nature of the ditch. It conveys drainage/runoff from farm land in an excavated channel to the closest stream in the area, Hayho Creek. Based on its artificially constructed condition and lack of natural water conveyance, it does not meet the city’s definition of a stream. Therefore the City’s stream classification system

does not apply. As an unregulated drainage ditch, the subject channel does not require a buffer under the MMC.

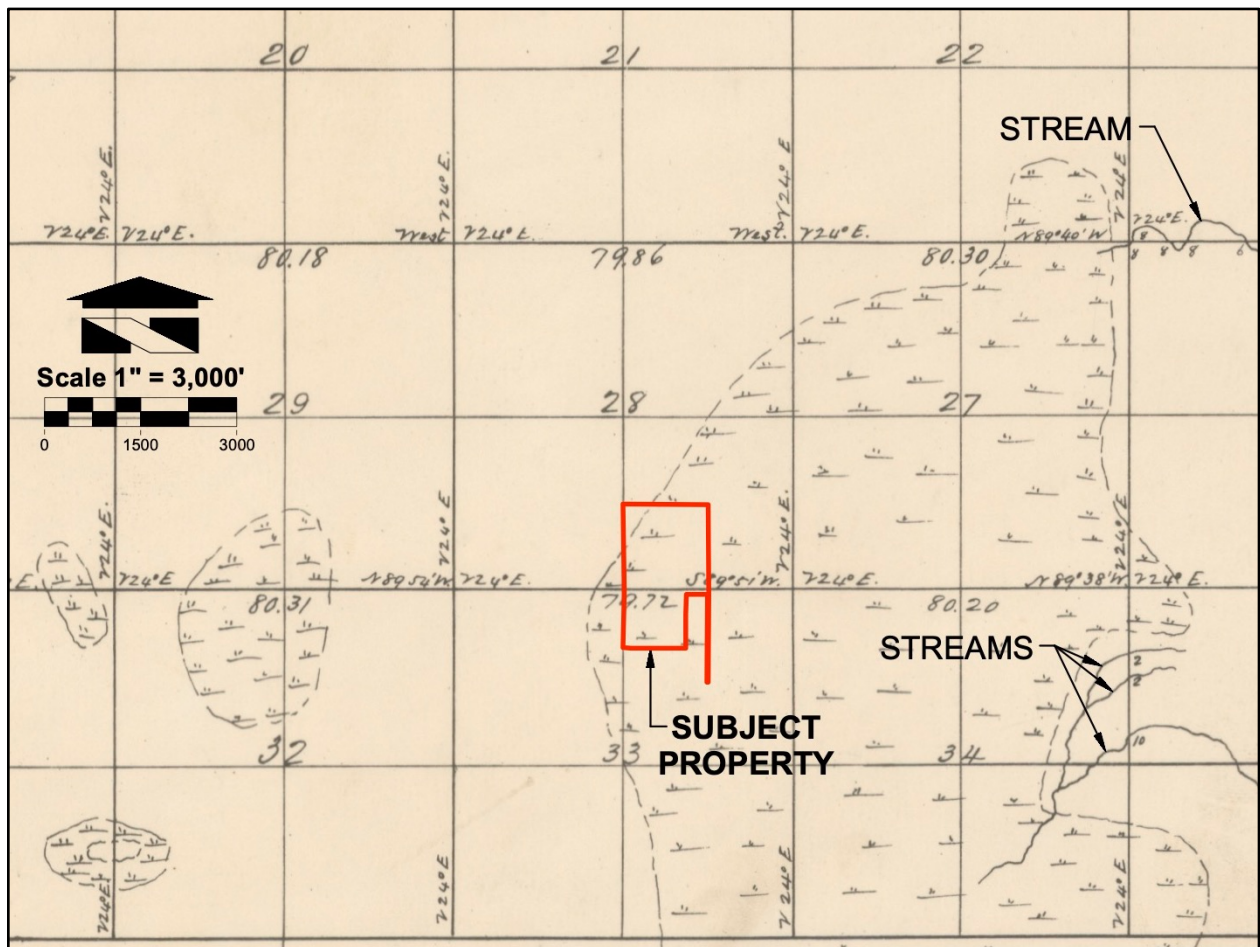
US Army Corps of Engineers (Corps)

The subject channel may fall under Corps jurisdiction. No impacts are proposed to this off-site channel, but if they become necessary, a Nationwide Permit may be required by the Corps.

**HISTORIC STREAM PRESENCE**

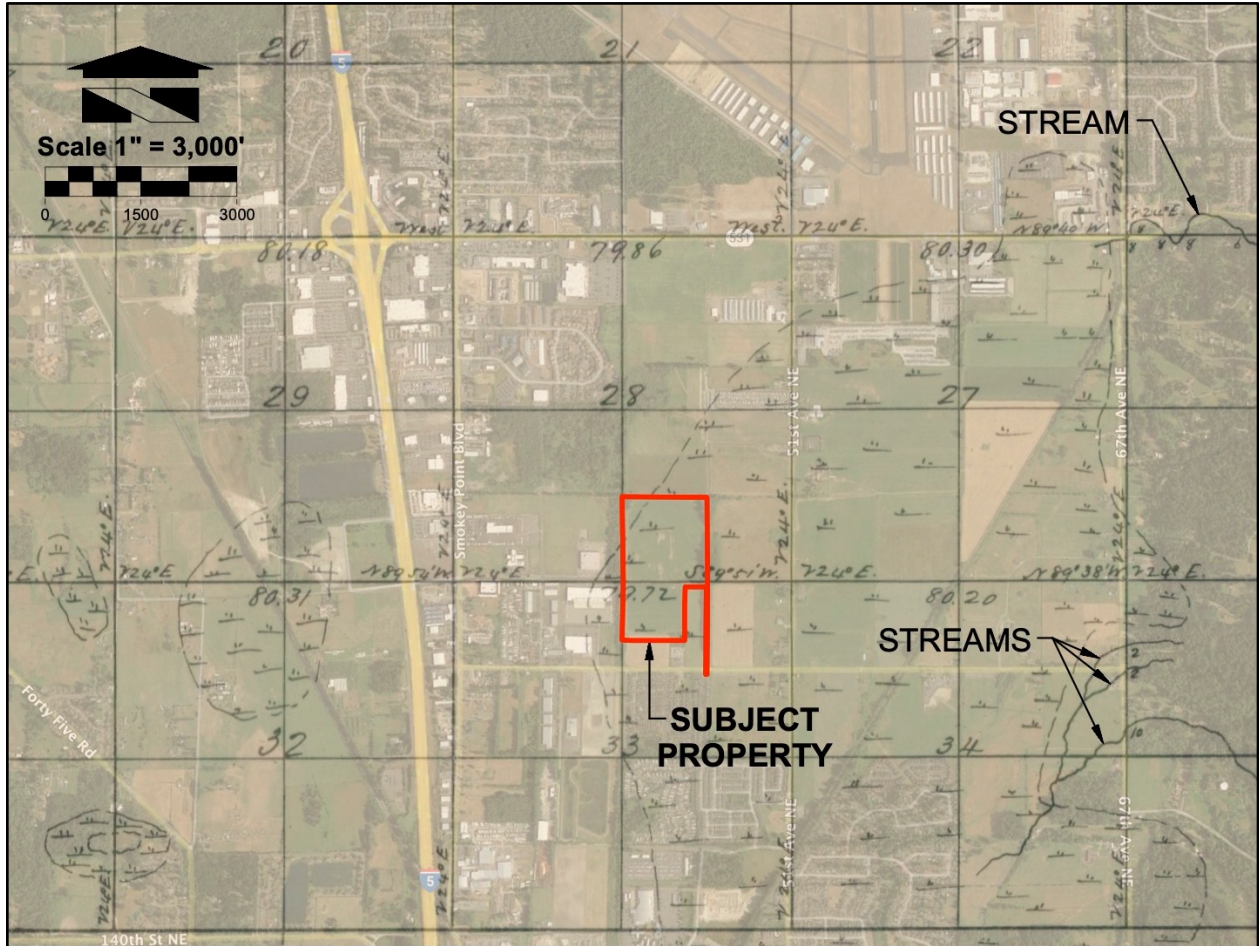
The last phrase in the City’s definition of “stream” reads: “...*except those that directly result from the modification to a natural watercourse.*” This section relates to natural watercourses that were modified and defines them as streams.

It is unclear when subject channel was constructed, but likely in the 1930’s when Hayho Creek was constructed. Aerial photographs from that era are not available to visually inspect the potential presence of a stream prior to construction of the channel. The General Land Office (GLO) has records from the first cadastral surveys that occurred in the area in the late 1800’s and are the most reliable maps of watercourses from that era. As land surveyors conducted the first section-by-section survey of the subject township in 1875, they mapped rivers, streams, and large wetland systems.



**Figure 4:** 1875 GLO map with notations.

No streams are mapped within Sections 28 or 33 on the GLO map. A large wetland complex is mapped in the eastern half of these sections, continuing to the north, south, and east. The only streams in the area, however, are located over a mile off-site to the northeast and southeast. The absence of a mapped stream on the GLO map indicates that the observed ditch is not the result of modifications to an existing watercourse. It also illustrates that streams were not historically present on or near the site.



**Figure 5:** 1875 GLO map with current Google Earth overlay and notations

## CONCLUSION

The drainage channel located adjacent to the north of the subject property does not meet the city's definition of a stream and is not regulated by Marysville Municipal Code. Drainage channels that are not regulated by the MMC do not require any setbacks or buffers.

No impacts are proposed to this channel. If work in the channel becomes necessary, permits and/or approvals from WDFW and/or the Corps may be required.

## **USE OF THIS REPORT**

This Stream Determination Report is supplied to PacTrust as a means of determining the presence and classification of streams on and 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.*



**John Laufenberg**  
*Principal Wetland Ecologist*  
*Professional Wetland Scientist*