



BGE Environmental, LLC.

Wetland Consulting and Land Use Planning

May 13, 2011

BGE11_00070

Bernie Johnston
Team 4 Engineering
5819 NE Minder Road
Poulsbo, WA 98370

RE: Stream Review for Maddox Parcel. Poulsbo.

Dear Ms. Johnston;

This letter is in response to your request for a review of stream conditions and its correlated stream typing for regulatory compliance of stream buffers and setbacks with the City of Poulsbo USA. The review considers two branches of Dogfish Creek within Section 11, Township 26N, Range 1E.

The first stream is less than one linear mile, traversing north to south from along Vetter Road NW, under State Road 305 terminating at the confluence of Liberty Bay. The focus of our review on this 7-acre parcel is from State Road 305 north through the undeveloped, subject property which fronts the main highway (Tax Parcel: 102601-4-022-2009). The second stream crosses a 12-acre parcel at the corner of SR305 and Bond Road (Tax Parcel: 112601-3-008-2008).

The initial field review was conducted on February 9, 2011 and the findings presented in letter format dated April 18, 2011. Subsequently, the wetland delineation was adjusted along the first stream, eliminating reference points of stream characterization described in the original letter. This correspondence provides clarification of on-site conditions consistent with current flagging, approximated distances and mapping.

The stream was traversed from the culvert crossing at SR305 north upstream, to approximately 200-feet beyond the property line. Weather conditions on that day were dry with an ambient temperature of 44-degrees. Measurable precipitation was recorded for six days prior to the field review and the precipitation amounts were temporally average.

The first stream channel lies within a large impounded wetland at the culvert interface. This wetland area receives all of the storm water run-off from SR305

where this highway is set upon a linear span crossing over the wetland. The wetland is dominated with invasive vegetation primarily reed canary grass and Himalayan blackberry with intermittent stands of young red alder and willow species. The channel width above the culvert is deep and narrow, maintaining a bank full width of approximately 2.5 feet within a moderate grade. This dynamic continues upstream for approximately 80-feet where the wetland then broadens and the stream channel braids with an average width of six-feet. Spawning gravel is present intermittently through the channel braids and surface waters were present, flowing at low volumes.

Wetlands associated along this reach of the stream channel consist of dark soils that are saturated with minimal vegetation coverage. Bare ground is persistent under the forested canopy. By spring, this bare ground was dominated with skunk cabbage. Upstream of the delineated wetland the stream bank full width quickly reduces to a range of 2 to 3 feet bank full width, with deep set pools and intermittent gravels. These conditions exist for approximately 50 feet before the stream goes subsurface. Subsurface conditions continue further northward, upstream, within a channel formation, but begin to transition away from this likelihood as you continue upstream. Approximately 190 feet upstream of the wetland boundary the stream channel terminates and observed hydrology is observed as sheet flow through litter distribution patterns in and around thin-stemmed persistent grasses and shrubs. This drainage pattern is intermittent and is an observable demarcation as you continue to the north, well beyond the subject parcel. The observed conditions and characterization of this stream are depicted on a map which is attached to this report. Map features have been interpolated directly from the engineering site plan and surveyed wetland boundary.

The observable conditions and measurements confirms that a stream channel begins to form on the subject property and this stream channel is seasonal for approximately 140 feet. Downstream the channel becomes better defined but remains seasonal until bank full width broadens and associated wetlands begin to develop. The stream continues through the wetted zone prior to dropping through a moderate grade towards SR305. We anticipate that the stream channel in its entirety goes dry during the summer months. This conclusion is based on the low flow conditions observed during the field review in winter and the existing shallow organic wetland soils associated with the lower reaches. The wetland soils function to detain and release surface water to the enveloped channel. As the majority of wetland vegetation is facultative, the likelihood of continued inundation is considerably low. As this sloped wetland is somewhat impounded by the SR305 crossing, one can assume that ground water continues through the roads footings and foundation, which are gable-like rockery. This setting allows for water within

the wetland to seep under the entire span of SR305. The stream channel is not the only outlet, therefore, likely dry during the summer months.

Fish habitat is present in this lower reach of stream from the wetland to SR305. However, as the legislative stream typing methodology defines, absence of hydrology within the stream anytime of the year under normal conditions delegates the typing to a Type 5 water (Ns) (WAC 22-16-031). Upstream conditions were inspected for up to 200 feet beyond the parcels end. Unclassified drainage conditions were equally observed. Further confirmation of the upper reaches of this unclassified drainage is concluded in a field review by Washington Department of Fish and Wildlife, attached letter dated August 23, 2001. The Area Habitat Biologist determined that Ns waters initiated south of his area of review, toward the subject parcel. This determination and our current findings conclude that the drainage remains consistent upstream of the parcel, eliminating the possibility of segments of natural waters that are a Type 4 system.

Based on our observations, stream conditions exist, originating from SR305 north to termination on the subject property. The majority of the stream was subsurface in winter and that which did retain flow was noted as being low and not likely persistent under normal conditions throughout the year. Seasonal, nonfish habitat streams are termed Type 5(Ns). Regulatory requirements for Ns streams require a 75 foot buffer width with a standard 25 foot RMA setback (§16.20315 COP Critical Area Ordinance (CAO)).

The second stream portion of Dogfish Creek reviewed crosses a corner of the proposed development between SR305 and Bond Road. This stream is typed F, fish habitat, and its habitat and usage is well documented. We concur and conclude the typing for this portion of Dogfish Creek. For regulatory purposes within the City of Poulsbo, this portion of the stream is a Type 3 necessitating a buffer width of 150 feet with a standard 25 foot RMA setback (§16.20.315 COP CAO).

Sincerely,



Robbyn Myers, PWS
Environmental Specialist

