BGE Environmental, LLC.

Wetland Consulting and Land Use Planning

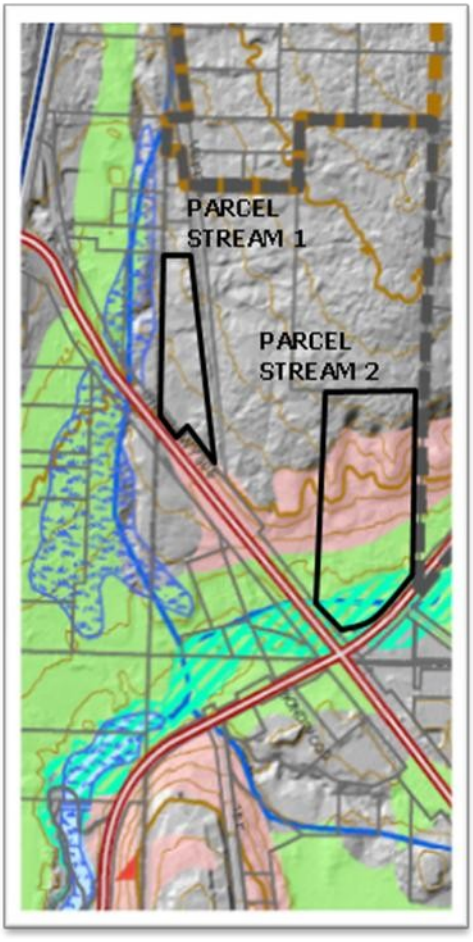
April 18, 2011

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

RE: Stream review for Maddox Parcel in Poulsbo, WA
BGE11_00070

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 within the City of Poulsbo UGA. 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 field review was conducted on February 9, 2011. The stream channel, bank full width, and associated wetlands were previously delineated by Wiltermood Associates. All flags were keyed in, surveyed and present for the review. 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 dominate under the forested canopy. The associated wetland narrows beyond flagging WBB16 and continues upstream as the associated bank full width defining the stream channel accordingly with a two to three-foot channel width. The stream continues north with deep set pools and intermittent gravels up until Flag WBB12 were the stream goes subsurface. Subsurface conditions persist further northward, or upstream, within a defined channel, transitioning away from this likeliness between Flags WBB5 and WBB6. North of these flags a discernable channel is absent. Rather sheet flow is observed through litter distribution patterns in and around thin-stemmed persistent grasses and shrubs. This drainage pattern continues to the north well beyond the subject parcel.

In summary, the observable conditions and measurements conclude that a stream channel begins between flags WBB5 and WBB6. Continuing downstream the surface waters experience subsurface conditions to WBB12. A broadened channel with associated wetlands forms at WBB16 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 wetland vegetation depicts Facultative vegetation conditions, the likely hood of saturation during the dry season 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 this stream from WBB16 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 are conclude 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, or downstream of a specific point (shown as red circle on Building Limitation Map). 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.

We therefore conclude a Type 5 stream originating from SR305 north and upstream to a median position between flags WBB5 and WBB6. Surface waters that become present beyond this point are unclassified. For regulatory purposes with the City of Poulsbo (COP), this portion of the stream requires 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 as 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

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State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Region 6 Office: 48 Devonshire Road - Montesano, Washington 98563-9618 - (360) 249-4628

August 23, 2001

Kitsap County DCD
ATTENTION: Rick Kimball
614 Division Street, MS-36
Port Orchard, WA 98366

Dear Mr. Kimball:

SUBJECT: Stream Verification; Kitsap County North Maintenance Yard Relocation Proponent, Section 10, Township 26 North, Range 01 East, Kitsap County, WRIA 15.MISC

On August 22, 2001 I met with Mark Ises of MAP Ltd. And the project proponents to review the drainage to the east and determine if a Type NS stream was present on the subject property. After further review, the initiation point for the Type NS stream is offsite to the south of the subject property.

However, within the drainage on the subject property there was the presence of heaving roots found on the mature conifer and alder. Heaving roots can be an indicator of the presence of wetland conditions. Obligate plants were not present within the bottom of this drainage and soil pits were not excavated during this site visit. However, prior to the proposed re-contour of the ravine, soil pits should be excavated to establish whether or not this ravine is a wetland area.

Thank you for the opportunity to provide these comments. If you have any questions, please contact me at (360) 895-3965.

Sincerely,

Jeff Davis

Jeff Davis
Area Habitat Biologist

JD:jd

cc: Rich Brooks, Suquamish Tribe
Mark Ises, MAP Ltd., P.O. Box 720, Silverdale, WA 98383