



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 12, 2016

Jenny Ngo, Senior Planner
City of Woodinville
17301-133rd Avenue NE
Woodinville, WA 98072

Delivered Electronically

RE: Verification of Wetland Rating and Boundaries for the Modi Property, Project Number: SEP14023 / CAE14001

Dear Ms. Ngo:

Thank you for taking time to meet with me last Thursday (May 5, 2106) to determine the extent and likely category of wetlands as well as the ordinary high water mark of Little Bear Creek on the Modi property at 19400 136th Avenue NE, Woodinville, WA. As the acting Department of Ecology (Ecology) Wetland Specialist for King County, I am happy to assist the City of Woodinville (City) however I can in the review of any wetland questions. I understand there is a hearing scheduled for later this month and I wish to have these comments entered as part of the hearing record for this property.

The purpose of our May 5th site visit was to verify the wetland boundary and rating. I was able to access the City's Website and have reviewed wetland analyses for this property by three different consulting firms who reached different conclusions on the extent and category of wetlands on the site. I asked to come out to the property to understand the site conditions, and hopefully give a more definitive answer on the wetlands. As the state agency responsible for managing and regulating the State's wetland resources, Ecology has developed a number of guidance documents on wetland categorization (wetland rating) and function, mitigation, and regulation to assist local governments and the public in understanding the value of wetlands and regulatory standards. Ecology is also the state agency responsible for implementing the State Water Pollution Control Act (RCW 90.48) and determining what resources fall within that acts jurisdiction. Verifying wetland delineations and ratings, (Ecology's wetland rating systems) is a routine part of a Wetland Specialist's responsibilities. We also regularly provide technical assistance to local jurisdictions in these matters as well as verifying ordinary high water mark determinations for Shoreline Management Act (RCW 90.58) compliance.

Wetland Rating

After reviewing the two reviews of the wetland ratings for Wetland A on the Modi property as well as doing my own rating (Hruby 2004, 2008 revised rating form), I concur with the Otak's determination that Wetland A is a Category III slope wetland (*Modi Short Plat Third Party Wetland Review*, dated April 8, 2015). I also agree with their conclusion Wetland A is Class 1 wetland as defined in § 21.24.320(2)(a) of the City's municipal code because it is proximal to and influenced by the main stem of Little Bear Creek (criterion § 21.24.320(2)(a)(iv)). As we saw during our May 5th site visit and as shown in Photograph 5 in the Otak report, Wetland A is clearly proximal to the Little Bear Creek as there is a contiguous surface water connection with the creek since Wetland A discharges directly to the creek (i.e., hydraulic continuity) and the lower portion of Wetland A is within the floodplain of Little Bear Creek and would be flooded during high flow events¹. For compliance with the Shoreline Management Act and the City's Shoreline Master Program, associated wetlands are any wetlands that are in proximity to and influence or are influenced by the shoreline water. For shoreline streams, this definition is further refined at WAC 173-22-040(3)(c). For proximity, if any portion of the wetland lies within 200 feet of the shoreline water, then the entire wetland is within shoreline jurisdiction because hydrologically, it is a contiguous system. This concept is illustrated in Figure 1, below, from the *Shoreline Master Program Handbook* (available at: <http://www.ecy.wa.gov/programs/sea/shorelines/smp/handbook/index.html>). Clearly, Wetland A is a shoreline associated wetland which meets the definition of a Class 1 wetland in § 21.24.320(2)(a)(iv) of the municipal code.

¹ The riverine portion of Wetland A flooded during an ordinary high water event, approximately a two-year event, would not constitute 10 percent of the wetland and therefore, Wetland A was not rated as a riverine wetland under Ecology's wetland rating system.

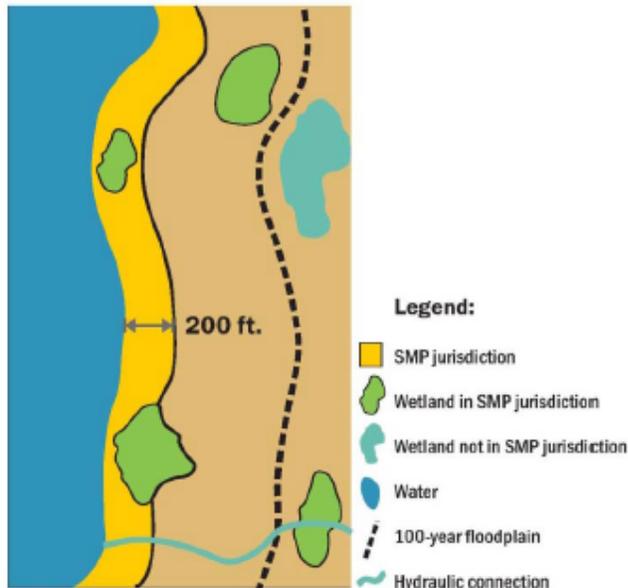


Figure 5-16: Wetlands in shoreline jurisdiction are either fully or partially within 200 feet of the OHWM, within the floodplain, or associated through hydraulic continuity.

Figure 1. Figure 5-16 from the SMP Handbook showing the relationship between SMP jurisdiction and associated wetlands.

Wetland Delineation

The most recent wetland delineation for the Modi property was prepared by Cooke Scientific (dated February 24, 2016) in response to Otak's findings that the original delineation (Acera, May 2014) did not accurately depict the western edge of Wetland A. Cooke Scientific hung an additional six flags that extended the northwestern boundary of Wetland A upslope. These six flags were still in place during our May 5th site visit and I concur with this wetland boundary.

However, as we discussed onsite during our recent site visit, I cannot concur with the overall boundary of Wetland A because I saw indicators of wetland plants, soils and hydrology within an area of emergent vegetation (giant horsetail; *Equisetum telmateia*) upslope and well outside the flagged boundary of Wetland A (Photograph 1, below). The wetland indicator status of giant horsetail is Facultative Wetland: plants that usually occur in wetlands, but are occasionally found in non-wetlands (Tiner 2012). Soils throughout this area were saturated to the surface, to the point where it was a challenge to walk without sinking into the mud. I dug a soil pit in this area and the surface layer of soils were a muck or mucky mineral soil (Photograph 2, below) that reacted positively to dipyrindyl paper, showing that the soils were in a reduced condition; due to prolonged saturation, reduced iron (Fe^{++}) was present). This area was dominated by emergent vegetation and there were no trees growing within it, likely because this area is too wet.

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The horsetail meadow appeared to be a few hundred square feet in area, extending downhill to or very near the flagged wetland boundary and I believe is likely an extension of Wetland A. If not an extension of Wetland A, it is a separate wetland that will need to be delineated, rated and shown on the site plans. A portion of the area in question is labelled with "drainages in this area" on the site plan from the Cooke Scientific report. An excerpt of that site plan is shown below and I have added an approximate outline (red dashed line) of the additional wetland area requiring further investigation to the site plan.

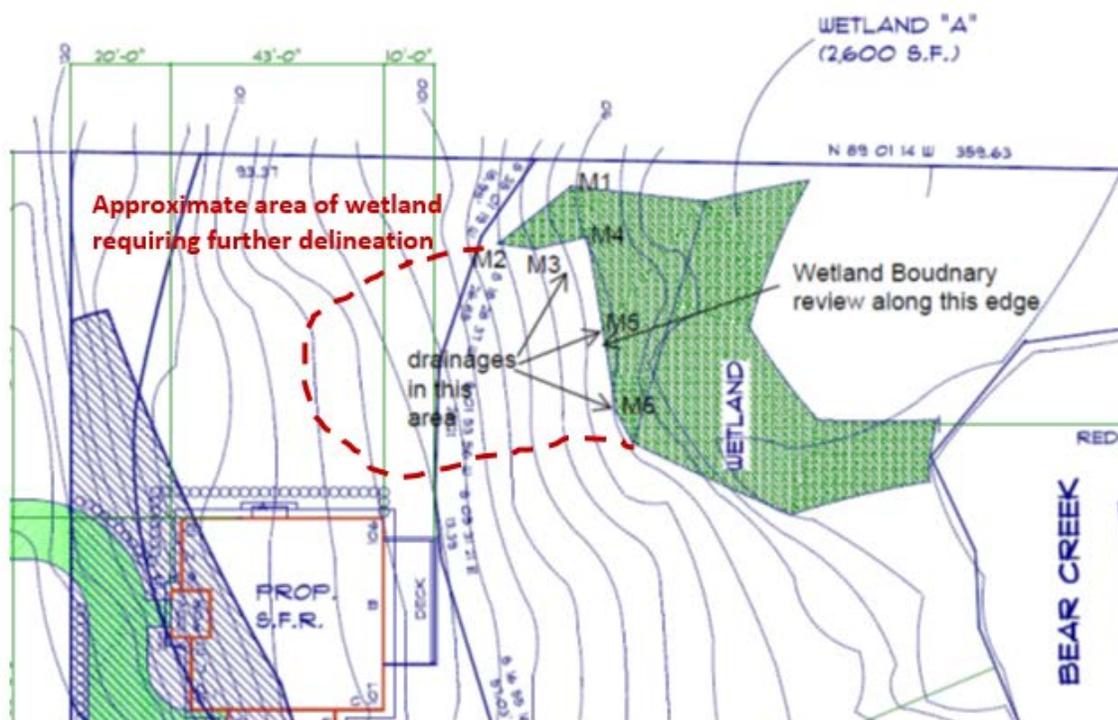


Figure 2. Excerpt of site plan from Cooke Scientific report with added outline (red dashed line) showing the area requiring additional wetland investigation based on observed wetland indicators seen during May 5, 2016 site visit.

Once this additional area has been delineated and rated, I would be happy to field-verify those findings. As of January 2015, Ecology has required that any field work for wetland ratings use the 2014 update to the state rating system. Also, any earthwork within wetlands will require state and federal approvals in addition to any City authorizations or exemptions.

Please let me know if you have any questions about these findings. I look forward to receiving the updated wetland delineation and assisting the City in the review of this proposal.

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Sincerely,



Paul S. Anderson, PWS
Wetlands/401 Unit Supervisor
Shorelands and Environmental Assistance Program

E-cc: Angie Peace, Washington Department of Fish and Wildlife
Karen Walter, Muckleshoot Indian Tribe
Prakash Modi

References

Tiner, R.W. 2012. Defining Hydrophytes for Wetland Identification and Delineation. U.S. Army Corps of Engineers, Publication No. ERDC/CRREL CR-12-1.

Site Photographs



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Photograph 1. Upslope end of emergent vegetation and wet area outside of delineated wetland boundary as seen during May 5, 2016 site visit; facing southwest.



Photograph 2. Saturated muck/mucky mineral soils seen outside of delineated wetland boundary during May 5, 2016 site visit. These soils reacted positively to dipyriddy paper showing that they were in a reduced condition.