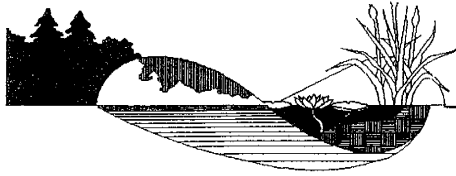


Appendix I:

Wetland & Stream Letter Report – Wood Trails



B-12 Wetland Consulting, Inc.

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Kent, WA 98032-5751

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December 6, 2005

Loree Quade
Phoenix Development, Inc.
PO Box 3167
Lynnwood, Washington 98046

RE: Wood Trails – City of Woodinville, WA
B-12 Job#A4-166

Dear Loree,

This letter describes my findings in regards to jurisdictional wetlands and streams on or near the site of the proposed "Wood Trails" subdivision, located in the City of Woodinville, Washington (the "site"). The site is 50 acres in size and irregularly shaped. 148th Avenue NE abuts the southeast corner of the site, NE 1 95th Street also forms the south border of the site. Several other streets dead end at the east side of the site including NE 198th, 201st and 202nd Streets. An industrial park is located west of the site, residential homes to the south and east of the site, and undeveloped land north of the site.

METHODS

On May 17, 2004, and June 27, 2005 I inspected the site for jurisdictional wetlands and streams using methodology described in the *Washington State Wetlands Identification Manual* (WADOE, March 1997). This is the methodology currently recognized by the City of Woodinville and the State of Washington for wetland determinations and delineations.

OBSERVATIONS

The site is characterized by relatively flat second or third growth forested area on the east sloping steeply to the west. Overstory species observed throughout the site include big leaf maple, bitter cherry, and scattered Douglas fir. Understory species include vine maple, Indian plum, salmonberry, Himalayan blackberry, elderberry, nipplewort, stinging nettle, and sword fern. No areas meeting hydrophytic vegetation criteria were noted on the site.

A review of the King County Soils Survey, National Wetlands Inventory Map, and the King County iMap for the site revealed no wetlands, streams or hydric soils on the site.

A 14,000sf Class 2 wetland is located to the west of the site approximately 200' and south of the site approximately 100'-150'. This wetland is located on property owned by Sierra Construction and has been previously delineated by L.C. Lee and Associates. The 50' buffer of this wetland does not encroach onto the site.

On-site Wetlands

The area of the potential wetland observed by the Watershed Company in the vicinity of the proposed storm water pond was investigated by B-12 on June 27, 2005. This is an area at the bottom of a natural ravine like depression and is located near the west property line. The area is characterized by a few scattered trees (cottonwood, alder and bitter cherry) and a dense shrub strata of Himalayan blackberry and salmonberry. Scattered elderberry and vine maple are also found in this area. The herb stratum is patchy and consists of nettle, some horsetail and some piggy back plant.

Soils in this area are mixed. On the lower end of the wetland there is an old logging roadbed that has mixed dark loamy soils that were found to be moist and had hydric characteristics. However, this soil graded into areas with clearly upland plants such as bitter cherry, red elderberry, Indian plum and sword fern. Uphill of the delineated area we found loamy sand with a dark (10YR 2/1.5) A horizon and a loamy sandy material B-horizon with a higher chroma of 3. Additionally, one of our soil pits in the delineated area we discovered a piece of Styrofoam at a depth of 6". Clearly the area has been disturbed in the past so it is unclear whether the soils observed in this area reflect hydric conditions or not. The plant community in this area is only about 50% hydrophytic, so it is marginal at best. We did not observe any wetland hydrology in this area and had not on any previous site visits to the property. The Watershed Company reported some soil saturation in this area during an April 2005 site visit. We are not sure whether this soil saturation observed reflected the very wet April we had or if it is a reflection of normal, spring conditions in this area. Therefore, we delineated the area which we found to have wetland vegetation at 50% or greater and hydric soils characteristics just uphill of the old roadbed and north of the existing water line. As we previously mentioned, we have not observed any wetland hydrology, so we are assuming it is present in the early growing season. It is clearly dry uphill and downhill of this area. This delineated area was flagged with flags A1-A7 and was found to be 1,389sf in size. The wetland includes one large black cottonwood as well as salmonberry, Himalayan blackberry and some nettle.

Wetlands >1,000sf in size are regulated by the City. This wetland best meets the criteria of a Class 3 wetland due to its small size and scrub-shrub wetland class. The wetland is a low function feature for several reasons. This wetland is on a slight slope so it has no stormwater storage value, receives no surface water or contaminated runoff to act as a nutrient contaminant sink, is not located along a riparian area so it provides no water to any downslope wetland or stream feature, and has little habitat value as most of it is a thicket of Himalayan blackberry which never appears to have any surface water. It is an area that appears to meet the criteria of a wetland but has little of the values normally

associated with wetlands. It does provide a minimal amount of habitat, although its character is not any different than most of the blackberry thickets along the west side of the site.

This wetland is located in the only feasible location for the proposed stormwater facility. Due to site constraints including steep slopes and limited feasible area for construction of a detention facility, a regional detention pond is proposed. An underground detention vault of this size is not an economically feasible option. Therefore, in order to build the proposed stormwater facility the small isolated Wetland A is proposed to be filled. Under City of Woodinville Code 21.24.350:

...Mitigation plans shall be consistent with the Department of Ecology Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposals, 1994, as revised.

(3) Mitigation for Lost Functions and Values. Mitigation actions shall address functions affected by the alteration to achieve functional equivalency or improvement, and shall provide similar wetland functions as those lost except when:

(a) The lost wetland provides minimal functions as determined by a site-specific function assessment and the proposed mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal watershed assessment plan or protocol; or

Since this wetland is of little functional value, we are proposing an enhancement of the small riparian wetlands along the stream on Tract A as mitigation. The entire area surrounding the creek on Tract A is stump sprout origin big leaf maple forest with a sparse understory. Historically this area was undoubtedly a conifer forest. We are proposing to enhance the habitat function of this area by under-planting the existing deciduous forest and small riparian wetlands along this creek with native conifers including western red cedar, western hemlock and sitka spruce. Since this is an enhancement verse wetland creation, it is normally done with ratios higher than 2:1. Wetland A would have a rating of a Category 3 wetland according using the Washington Department of Ecology (WADOE) wetland rating form. As recommended by WADOE for enhancement for fill of Category 3 wetlands, we are proposing to enhance 8 times the amount of wetland to be filled with a total of 11,200sf of enhancement. This enhancement will be focused in the small wetlands along the creek to provide shade and a conifer component to this area that is currently lacking. There is also an old roadbed excavation along the stream that has evolved into a wetland with little cover. This area would also be enhanced through native plantings.

The final enhancement plan will restore a conifer component to this area increasing the diversity of plant material and shading the stream helping to keep water cooler in this small tributary that eventually drains to Little Bear Creek. It will also provide some

cover and future nesting and browsing material for many species using the stream corridor.

If you have any questions or need additional information, please feel free to contact me at (253) 859-0515 or at ed@b12assoc.com

Sincerely,
B-12 Wetland Consulting, Inc.

A handwritten signature in black ink, appearing to read "Ed Sewall". The signature is fluid and cursive, with the first name "Ed" and last name "Sewall" clearly distinguishable.

Ed Sewall
Senior Wetland Ecologist