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Follow-Up Review for The Villages MPD Phase 2 Plat C
– Wetland Review, memorandum from Jason Walker
(Perteet) to Stacey Welsh
May 19, 2014

Memorandum



To: Stacey Welsh, Community Development Director, City of Black Diamond
From: Jason Walker, ALSA, PWS, Environmental Manager, Perteet Inc.
Date: May 19, 2014
Re: Follow-Up Review for The Villages MPD Phase 2 Plat C – Wetland Review

Perteet Inc. has conducted a follow-up review of related documents for The Villages MPD Phase 2 Plat C project site in Black Diamond, Washington and in reference to our Wetland Review Memo dated March 31, 2014.

The following documents were additionally reviewed under this resubmittal:

- Response Letter from Wetland Resources, Inc., April 28, 2014
- Sensitive Area Study and Wildlife Analysis for the Villages MPD Phase 2 Plat C; prepared by Wetland Resources, Inc., Revised May 6, 2014
- Wetland Buffer Vegetation Management Plan for the Villages MPD Phase 2 Plat C; prepared by Wetland Resources, Inc., Revised May 6, 2014
- Wetland Hydroperiod Analysis Response Letter from Golder Associates, May 8, 2014
- Letter from RH2 addressing PLN13-0027 Villages Phase 2C Preliminary Plat Stormwater Hydrology Review, May 13, 2014
- Letter from Yarrow Bay Holdings requesting Buffer Averaging Plan Approval, May, 14 2014
- Revised Project drawings for the Villages MPD Phase 2 Plat C, specifically sheets CV1 through CV4, PPI-4, PP5, RSI-4, RDI, UAI, and SSWA1 through SSWA4; prepared by Triad Associates, Received by the City of Black Diamond on April 21, 2014

Findings:

The following is our list of our original comments from our March 31 memo, applicant responses obtained from the April 28, 2014 letter from Wetland Resources, and our follow-up comments.

- I. Wetland determination data forms from the original delineation in 2008 were resubmitted by Wetland Resources, Inc. using the current Corps of Engineers wetland delineation data forms (U.S. Army Corps of Engineers 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*). The locations of most of these soil pits were shown on the *Sensitive Area Study and Wildlife Analysis Map for Villages Phase 2 Plat C*. This indicates paired wetland/upland plots were provided for Wetland EI (Plots EI, E2, and E6) and Wetland TOS (Plots E3, E4, and E7). However, the following information is missing or incomplete:
 - a. Data forms of paired wetland/upland plots for Wetlands E7, E8, E10, and 213 were not provided.

Memorandum



Applicant Response:

The data provided as part of Phase 2 Plat C's Wetland Review was for reference purposes only and represents what was originally submitted and approved for this portion of The Villages MPD. The wetland delineations as outlined in the Constraints Map (Exhibit G to The Villages MPD Development Agreement) are deemed final and complete through the term of the DA, pursuant to Section 8.2.1 , and therefore additional paired data sites were not provided.

Perteet Follow-Up Response:

Data forms are supportive information to document the vegetation, soils, and hydrologic characteristics of the wetlands and adjacent uplands. Data forms were provided for some wetlands and not others. For consistency of the report, and completeness of data represented, it is requested that data forms be provided.

- b. The data form for Plot E5 was provided but its location is not indicated on the map.

Applicant Response:

Noted. The Location of Data Site E5 has been added to the Sensitive Area Study and Wildlife Analysis Map. See attached.

Perteet Follow-Up Response:

Comment satisfied.

- c. Information is missing from the Summary of Findings on data forms for Plots E4 and E6 that need to be corrected.

Applicant Response:

Noted. The Summary of Findings for Data Sites E4 and E6 has been updated. See attached.

Perteet Follow-Up Response:

Comment satisfied.

- 2. The wetland rating form for Wetland E1 was revised by Wetland Resources, Inc. based on previous comments by Perteet for the Phase 1A Preliminary Plat. Based on detailed topographic information, a drainage divide in the wetland unit has been documented within the southern area of Wetland E1. The rating was revised to evaluate the northwestern area of Wetland E1 as a separate wetland unit pursuant to the Ecology Wetland Rating System for Western Washington and companion guidance materials published by the Department of Ecology. The revised wetland rating for Wetland E1 is consistent with BDMC 19.10.210 and we concur with the revised buffer width of 110 feet for the northwestern unit of Wetland E1 according to BDMC 19.10.230.

Applicant Response:

Noted.

Perteet Follow-Up Response:

None.

3. The wetland rating forms for Wetlands E7, E8, E10, TOS, and 213 were reviewed to verify the classifications according to BDMC 19.10.210. Although we had slightly different rating scores for the three Category III depressional wetlands (Wetlands E7, E8, and E10) and one Category IV depressional wetland (Wetland 213), it did not change their ratings or buffers. We also concur with the Category I rating for Wetland TOS.

Applicant Response:

Noted.

Perteet Follow-Up Response:

None.

4. The following items pertain to wetland buffers:
 - a. It was agreed in our July 25, 2012 memo for The Villages Phase 1A that the buffer for Wetland E1 may stop at the logging road pursuant to BDMC 19.10.230 from information provided by the applicant and due to the disturbance frequency of the road that was verified by City staff. For Wetlands E7, E8, and E10, the logging road is not distinct in the field, does not appear to have the same disturbance frequency, and would not serve as an ecological break; therefore, this code provision would not apply. Revise the Phase 2 Plat C drawing sheets to indicate the full standards buffer widths for Wetlands E7, E8, and E10.

Applicant Response:

Applicant has revised the Phase 2 Plat C drawings to include full standard buffer widths for Wetlands E7, E8, and E10. See revised sheets PP3, PP5, RS3, and SSWA3.

Perteet Follow-Up Response:

The applicant has revised drawings to depict standard buffers for Wetlands E7, E8, and E10; however, a separate critical areas tract is not provided for these sensitive areas. Wetlands and buffer areas appear to occur within future development areas (Tracts 905, 906, and 907). Sensitive areas are required to meet BDMC 19.10.150(B). Provide protection tracts for all sensitive areas.

- b. Similarly, the Phase 2 Plat C drawings do not indicate what development actions are proposed in tracts that occur in proximity of Wetlands E7, E8, and E10. Information regarding the proposed development actions is needed in proximity of Wetlands E7, E8, and E10, or we request that a condition of plat approval be created by the City to require subsequent review of development activities in this area for direct or indirect wetland and/or buffer impacts.

Applicant Response:

Applicant intends to develop the areas in proximity to Wetlands E7, E8, and E10 in much the same manner as has been proposed in Phase 2 Plat e, i.e., with single family residential units. The Applicant would be amenable to creating a condition that requires subsequent review of development activities in this area for their direct or indirect wetland and/or buffer impacts.

Perteet Follow-Up Response:

Comment satisfied. It is requested the City condition subsequent review for future development proposals.

- c. Revise the drawings to label each buffer addition and buffer reduction area. Create a table itemizing the square foot area of location in order to document how and where equal or greater area is provided.

Applicant Response:

Applicant has revised the Phase 2 Plat C drawings to label each area of buffer addition and buffer reduction. See revised sheets PP1-PP5, identifying 12 areas of buffer addition or reduction and a net buffer gain of 24,105 square feet.

Perteet Follow-Up Response:

Comment satisfied. Buffer reduction (take) and buffer addition (give) areas are demarcated and quantified on revised drawings.

- d. Please provide an explanation for how equivalent functions will be provided through buffer averaging that meets BDMC 19.10.230(H)(2d), the *City of Black Diamond Sensitive Areas Ordinance*, *Best Available Science Review and Recommendations for Code Update*, and *Ecology guidance in Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands*.

Applicant Response:

BDMC 19.10.230(H)(2)(d) states "The buffer at its narrowest point is never less than one-half of the required width except where the mayor or his/her designee finds that there is an existing feature such as a roadway that limits buffer dimension, or an essential element of a proposed development such as access that must be accommodated for reasonable use and requires a buffer".

As stated in the *Sensitive Area Study, Buffer Averaging Plan and Wildlife Analysis*, dated December 24, 2013, the buffer will be reduced to a minimum of 102 feet, which equates to a total of 8 feet or a seven (7) percent reduction. This is significantly less than the fifty (50) percent reduction allowed per BDMC 19.10.230(H)(2)(d).

Equivalent functions will be provided through buffer averaging by meeting or exceeding the guidelines established in BDMC 19.10.230(H) and the *Ecology guidance in Wetlands in Washington State, Volume 2, Guidance for Protecting and Managing Wetlands*. The *City of Black Diamond Best Available Science Review and Recommendations for Code update* is silent on buffer averaging with the exception of referencing the aforementioned DOE document.

Equivalent functions and values are provided as follows:

- The buffer reduction areas are a maximum of 8 feet in width in an area that is densely vegetated. Densely vegetated buffers are known to provide the maximum protection to their critical areas, specifically water quality, hydrologic functions and wildlife habitat. Impacts to these functions will be deminimis from the small, proposed intrusion.



Memorandum

- Portions of the additional buffer area are located adjacent to the existing, frequently used gravel roads which significantly reduced the standard buffer width. These portions of the road will be decommissioned, allowing the buffer to function naturally.
- The Applicant is proposing a greater than 12:1 ratio for buffer averaging rather than the 1:1 required per BDMC 19.10.220(H). This provides an increase in permanently protected buffer area of 24,105 square feet.

The buffer averaging proposed provides greater protection to the functions and values of the wetland by: (i) limiting the width of the reduction areas; (ii) only proposing buffer averaging in areas where wetland protection will not be impaired, where existing gravel roads will be decommissioned, and where additional protection measures will be implemented; and (iii) and by providing a greater than 12:1 additional buffer to the reduced buffer ratio.

Perteet Follow-Up Response:

General:

It is noted that the applicant submitted a letter to the City on May 14 with supplemental information requesting approval of the buffer averaging plan. Information submitted by the applicant shows they are providing a net gain of 24,105 square feet in buffer area above what is required by the BDMC. This "net gain" includes areas of buffer for Wetland E1 that were not originally provided in the full standard buffer width at the north end of the wetland due to provisions in the Black Diamond Code (BDMC 19.10.230(E)) which allow the buffer to stop at the existing road. Standard buffers should be relatively intact and this code section allows for buffers to stop at human features where they are not intact and effectively separate the potential buffer from ecological functions of the resource, including areas of hardened surfaces such as the logging road in this instance. The proposed additional buffer areas given back at this location are forested, and due to elimination of vehicular uses on the road and conversion to a pedestrian trail, the added buffer at this location should provide ecological benefit in the context of the proposed plan. The remaining components of the buffer averaging plan are summarized as follows: the buffer is reduced at area 4 (182 square feet) for Lots 156 and 157, at area 6 (373 square feet) for Lots 147 and 140, at area 8 (1,366 square feet) for Lots 134-141, and at area 10 (196 square feet) for Lots 129-131. The total buffer reduction at these locations is understood to be 2,117 square feet from the provided information. The total area that is shown to be added in compensation is understood to be 26,222 square feet, and the majority of the added area was observed by Perteet to be forested (except for logging roads) with vegetation substantially similar to the reduction areas, and otherwise functionally equivalent.

Finding 4d1:

There are discrepancies in the buffer averaging locations associated with lot descriptions described on Page 2 and 3 of the revised Sensitive Area Study and Wildlife Analysis in comparing the addition areas and reduction locations to the drawings and to the recently provided May 14 letter from Yarrow Bay Holding. The area quantifications and locations describing the buffer averaging proposal identified in the drawings and May 14 letter shall

supersede any conflicting information contained in the Sensitive Area Study and Wildlife Analysis.

Finding 4d2:

The City is recommended to condition that clearing and grading activities be prohibited in the averaged buffer, inclusive of addition areas, and fencing and appropriate sensitive area signage be provided at the edge of the buffers pursuant to BDMC 19.10.220(D). With these conditioned items, Perteet agrees the buffer averaging plan is acceptable to meet the requirements of the BDMC in our professional opinion.

5. The soft surface trail alignment within wetland buffers shown on the project drawings prepared by Triad Associates (Sheets PPI through PP5) is generally consistent with BDMC 19.10.220(B). These trails are mainly located within the outer 50% of the buffers for Category II, III, and IV wetlands; and the outer 25% of Category I wetland buffers. Where possible, these trails utilize existing logging roads in order to minimize buffer disturbances, however the following items are of concern:
 - a. We recommend that the City require trail alignments to be field located to avoid clearing of trees. Downed woody debris that is removed for the trail should be placed in naturalistic locations similar to what exists on the site for ground contact, instead of making slash piles. Culverts should be provided when the trail bisects surface or groundwater drainages.

Applicant Response:

Where feasible, Applicant will field locate trail alignments to avoid clearing trees, place downed woody debris in naturalistic locations, and use culverts when the trail bisects surface or groundwater drainages.

Perteet Follow-Up Response:

We request the City condition compliance with our original comment and additionally request the City observe the field location of the trail alignments to avoid tree removal. From our site observations it appeared that trail corridors should be feasible without removal of significant trees. This may result in meandering trails and would warrant field location of the trail alignments for this purpose rather than following the mostly linear trail alignments depicted on drawings which could require tree removal.

- b. We recommend combining the location of the trail with the infiltration trenches to minimize buffer disturbances.

Applicant Response:

Applicant will combine the location of trails with infiltration trenches wherever feasible, subject to final design work with the City.

Perteet Follow-Up Response:

Comment satisfied.

- c. We recommend eliminating the soft surface trail that bisects Wetland E1 using an abandoned logging road because this road has become naturalized and would cause disturbance to hydrology and vegetation and would be considered a wetland impact.

Applicant Response:

Applicant proposes a condition that such trail will either be eliminated during final engineering design or designed and constructed in such a way as to avoid wetland impacts.

Perteet Follow-Up Response:

We request the City condition compliance with our original comment to avoid wetland impacts and to keep the trails in the outer edges of the wetland buffers consistent with BDMC 19.10.220(B)(3c)

- d. Evaluate the trail location near Wetland E7 to occur in the outer 50% of the buffer.

Applicant Response:

As suggested, the trail location has been revised to occur in the outer 50% of the buffer. See revised sheets PP3 and RS3.

Perteet Follow-Up Response:

Comment satisfied.

- 6. Hydrologic regimes play a major role in the biotic composition, structure, and function of wetland ecosystems. Pursuant to Section 7.4.3(B) and (G) of The Villages MPD Development Agreement (DA), post-construction hydrologic support of wetlands is required because wetlands could be adversely affected by hydrologic alteration caused by development. The preliminary drainage analysis prepared by Triad Associates has modeled the water budget in each subbasin in order to design roof drain infiltration trenches which will contribute water to wetland areas post-construction. We recommend that this approach be reviewed by the MDRT hydrogeologist to verify that no impact to wetland hydrology has been demonstrated and is consistent with wetland protection provisions relating to wetland hydroperiods described in the 2005 Ecology Stormwater Manual for Western Washington.

Applicant Response:

See the attached memo from Golder Associates, dated May 8, 2014.

Perteet Follow-Up Response:

Perteet has reviewed the technical memo prepared by Golder Associates and the associated May 13, 2014 letter prepared by the MDRT (RH2) requested in our memo from March 31, 2014. As described in the last paragraph of the Golder memo, we recommend the City condition, during final engineering review of Phase 2 Plat C, an update to the preliminary drainage analysis be conducted by the applicant to account for any subtle design changes from the preliminary plat design to the final engineering construction drawings.