TECHNICAL MEMORANDUM

Prepared for: Marla Powers
Associate Planner
City of Poulsbo
200 NE Moe Street
Poulsbo, WA 98370

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Prepared by: Grette Associates[LLC]
2102 North 30th Street, Ste A
Tacoma, WA 98403

File No.: 208.001.1100

Re: Oslo Bay Apartments – Critical Areas Report: Third-Party Review

1 INTRODUCTION

The City of Poulsbo contracted with Grette Associates to assist in the review of the revised *Non-Wetland Determination Report* (the "KCPW Report"; revised November 4, 2020), the *Critical Areas Report* (the "Critical Areas Report"; Revised November 4, 2020), and the *Habitat Management Plan* (the "HMP"; revised November 4, 2020) that were prepared by Ecological Land Services (ELS) in support of the proposed Oslo Bay Apartments Project. These documents have been revised to address City comments and previous third-party reviews associated with the proposed project (Grette Associates 2020a, 2020b, and 2020c).

In summary of Grette Associates' 2020 reviews, it was determined that there are three wetland features and two stream features within the project site (Table 1 and Table 2). The purpose of the revised documents was to update the classifications of the critical area features and to address project elements that are within 300 feet of the features for conformance with Chapter 16.20 of the Poulsbo Municipal Code (PMC).

Table 1. Wetland Summary

Feature	Water Type[1]	Buffer[2]	Building Setback[2]
Wetland A	Category III	150 ft.	15 ft.
Wetland B	Category IV	50 ft.	15 ft.
Wetland C	Category IV	50 ft.	15 ft.

[1] Please note that Grette Associates July 2020 review contained minor differences in functional scores for Wetlands B and C; however, those differences did not result in a change in categorization.
[2] Per PMC 16.20.230.

Table 2. Stream Summary

Feature	Water Type[1]	Buffer[1]	Building Setback[1]
Dogfish Creek	F1	200 ft.	25 ft.
Unnamed Stream	F2 and Ns1[2]	F2:150 ft./Ns1:75 ft.	25 ft.

[1] Per PMC 16.20.315
[2] the unnamed stream within the western portion of the project site contains fish habitat and non-fish habitat conditions.

2 REVIEW METHODS

Grette Associates conducted a thorough review of the documents submitted to the City. The review focused on verifying the accuracy of the descriptions within the reports for compliance with Chapter 16.20 of the PMC as well as consistency with other applicable application materials provided to Grette Associates.

3 REVIEW RESULTS

3.1 KCPW Report

The KCPW Report has been revised to correctly characterize and classify the portion of the unnamed stream within the subject property as a Type Ns1 stream. Per 16.20.315, Type Ns1 streams are subject to a 75-foot buffer and a 25-foot building setback. The KCPW Report correctly assigns the appropriate buffer. With the exception of the access road, the project is not proposing any development within the subject property.

Given that an HMP has been prepared to address the proposed stream crossing and the purpose of the KCPW Report was to document that no wetland conditions are precent within the subject property, the KCPW Repot is deemed to be complete and compliant with the wetland assessment reporting requirements defined in PMC 16.20.725. Therefore, Grette Associates recommends that this report be approved.

3.2 Critical Areas Report

The Critical Areas Report was prepared to summarize the baseline conditions within the project site for conformance with PMC 16.20.725 and PMC 16.20.750. In summary, the Critical Areas Report has been revised to update Wetland A's rating (Category III). The characterization of Wetland B and Wetland C and their ratings were approved in Grette Associates' July 2020 review. Please note that Table 1 in the Critical Areas Report needs to be revised to be consistent with the rating forms.

Additionally, the Critical Areas Report correctly summarizes the stream conditions within the project site (Tables 1 and 2). Dogfish Creek is classified as a Type F1 stream and subject to a 200-foot buffer and 25-foot building setback. The Critical Areas Report accurately classifies the unnamed stream situated within the western portion of the project site. Based on a site-specific review by WDFW, the lower portion of the unnamed stream is classified as a Type F2 stream while the upper portion of the unnamed stream is classified as a Type Ns1 stream. Per PMC 16.20.315, Type F2 streams are subject to a 150-foot buffer and Type Ns1 streams are subject to a 75-foot buffer. Both stream segments are subject to a 25-foot building setback (PMC 16.20.315). The Critical Areas Report accurately assigns the appropriate buffers.

In summary, with the exception of the minor inconsistency with Table 1 regarding the wetland ratings, the Critical Areas Report is complaint with PMC 16.20.725 and PMC 16.20.750. Therefore, Grette Associates recommends that this report be revised and approved.

3.3 Habitat Management Plan

Based on the information provided, the HMP was prepared to address the proposed stream buffer reduction, stormwater discharge, and stream crossing associated with the Ns1 stream for compliance with PMC 16.20.755.

3.3.1 Stream Buffer Reduction

According to the HMP, a stream buffer reduction from 150 feet to 112.5 feet (25%) along the southern portion of the Type F2 stream is necessary to accommodate the construction of the western stormwater pond. The HMP provides the appropriate discussion to demonstrate that no feasible alternative is available to relocate the stormwater pond to retain the standard 150-foot buffer. Per PMC 16.20.315(B), stream buffers may be reduced up to 25 percent if the resulting conditions are sufficient to protect the affected habitat. The HMP is proposing to remove invasive species and provide supplemental plantings along the outer margin of the reduced buffer; however, the proposed planting plan is limited to small shrub species. Per the HMP, the purpose of the proposed enhancement is to create a dense outer buffer area. Given that the construction of the stormwater pond will include temporary disturbance within the outer reduced buffer area and building setback, Grette Associates' recommends that an assortment of native trees be included in the proposed planting plan to provide a structurally diverse plant community.

In addition to the proposed buffer reduction associated with the western stormwater pond, it appears that the project proposes to reduce a portion of the Type F2 buffer north of the stormwater pond to support the proposed alignment for Vetter Rd. With the exception of some minor intrusion into the 25-foot building setback, Figure 12 within the HMP shows that the project can retain the standard 150-foot stream buffer. Per PMC 16.20.315, minor intrusions may be allowed within the 25-foot building setback. Given this information, the HMP does not demonstrate a purpose and/or need to reduce the standard 150-foot stream buffer and the more appropriate modification would be the allowed intrusion (pending City approval) into the building setback.

3.3.2 Stormwater Discharge

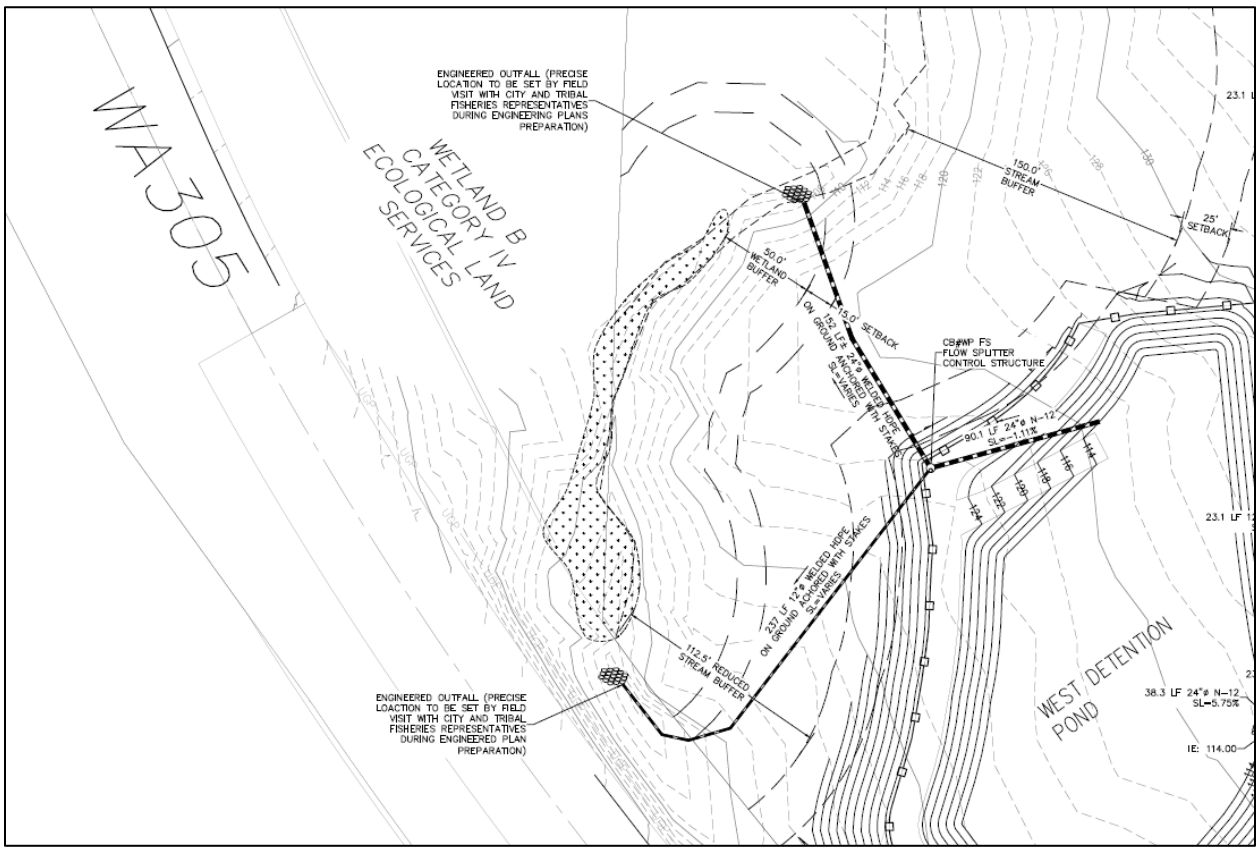
Per PMC 16.20.320(G), utilities may be allowed only when there are no feasible alternatives. According to the HMP, the project proposes to construct two stormwater outfalls associated with the western stormwater pond. The supporting figures within the HMP only show the location of one stormwater outfall which is located near Highway 305 and upslope of the culvert associated with the Type F2 stream. While the HMP briefly describes that post-project conditions will maintain general hydrology conditions within the basin, there is no analysis to demonstrate that the discharge of stormwater will not adversely impact the stream and/or that the outfall will be equipped with any BMP devises to control discharge. Based on the civil plans provided to Grette Associates, an aboveground 24-inch HDPE outfall pipe will extent to the edge of the channel upstream of Wetland B and a second aboveground outfall pipe (12-inch HDPE) will be placed just upslope of the culvert beneath Highway 305 (Figure 1). The civil plans note that a flow control devise will be installed at the junction of these two pipes. The outfalls will be armored with small dispersion pads to diffuse flows.

During review of the civil plans Grette Associates identified two additional stormwater outfalls associated with the eastern stormwater pond that are not addressed in the HMP. One would be constructed at the edge of the wetland buffer associated with Wetland A and the other would be constructed near Highway 305, near Wetland A's boundary. Both of these outfall pipes are noted to be 24 inches in size and would be equipped with a flow control devise installed where the two pipes connect. Please note that CCS's hydroperiod analysis (August 24, 2020) shows both outfalls being positioned at the edge of Wetland A.

Based on the information provided in the HMP and the inconsistencies identified with the outfalls associated with the eastern stormwater pond, Grette Associates cannot concur with the HMP that

there will be no direct and/or indirect impacts that will occur as a result of the stormwater outfalls. In Grette Associates' professional opinion, the sizing of the stormwater outfall pipes (24-inches[1]) suggests that there is potential for large volumes of periodic discharge from the stormwater ponds and the HMP does not provide any supporting information that the dispersion pads will be sufficient to prevent scouring and potential water quality issues. In addition, the civil plans show the larger outfall pipe associated with the western stormwater pond being constructed within the Type F2 stream (Figure 1). This is inconsistent with the description in the HMP.

Figure 1. Proposed stormwater outfall locations.



3.3.3 Stream Crossing

Stream crossings shall adhere to the minimum development standards defined in PMC 16.20.320. The project proposes to extend "Road L" across the Type Ns1 stream to provide access to Vetter Rd. from Viking Ave. NW. PMC 16.20.320 has several design standards that are not applicable for the proposed crossing because the segment of stream is a non-fish habitat feature per WDFW.

The HMP has provided adequate rationale to demonstrate the need of the crossing. In summary, due to the alignment of the stream, there is no alternative alignment for Road L that would prevent crossing the Ns1 stream. Grette Associates concurs with this rationale.

Based on the applicable development standards defined in PMC 16.20.320, the proposed crossing shall not diminish flood-carrying capacity, shall serve multiple properties where possible, and shall

[1] Based on size, the 12-inch HDPE outfall pipe associated with the western stormwater pond is assumed to function as a secondary/overflow pipe.

serve other purposes such as utility crossings, pedestrian or bicycle easements, etc. when feasible. The HMP does not provide any information to demonstrate that the crossing was designed to meet these specific development standards summarized above. However, the HMP does provide detailed information describing that the culvert was sized to span the width of the stream channel and adjacent areas along the margins of the channel which will also permit passage for a range of wildlife species. Based on the information contained in the HMP, the proposed culvert will be 84-inches in size, be placed at the existing grade (approx. 3.4%), will be countersunk 50 percent, and WDFW's streambed sediment mix will be placed inside the culvert to reestablish the streambed. Figure 5 within the HMP shows that Road L will include sidewalks which is one of the applicable design standards defined in PMC 16.20.320.

In summary, based on the information described in the HMP and review of the stream crossing detail provided, the proposed crossing largely meets the minimum requirements defined in PMC 16.20.320. While Grette Associates assumes that the proposed culvert size (84-inches) would not diminish flood-carrying capacity because the size of the upstream culvert (approx. 24-inches) beneath the County's transit station limits stream flows and the bankfull width previously observed in the general location where the culvert will be placed was approximately 36 inches, the HMP should provide the applicable rationale to demonstrate the culvert size will not diminish flood-carrying capacity to comply with PMC 16.20.320.

4 CONCLUSION

Upon thorough review, the KCPW Report and the Critical Areas Report meet the minimum reporting requirements defined in Chapter 16.20 of the PMC. However, prior to acceptance Grette Associates recommends that the HMP and applicable application materials be revised to address the following discrepancies identified in the review.

- Per PMC 16.20.315(B), stream buffers may be reduced up to 25 percent if the resulting conditions are sufficient to protect the affected habitat. The proposed planting plan associated with the buffer reduction to construct the western stormwater pond does not include any tree species. The HMP also describes temporary disturbance during the construction of the stormwater pond which may include the removal of some native trees. To ensure the construction of the pond would not adversely impact existing buffer functions, Grette Associates recommends that the planting plan be revised to include an assortment of native trees;
- Per PMC 16.20.315, minor intrusions may be allowed within the 25-foot building setback. The project proposes to reduce a portion of the 150-foot Type F2 stream to facilitate the construction of Vetter Rd. Figures in the HMP show that the project can retain the standard 150-foot buffer and that the only encroachment would be within the 25-foot building setback. Based on this information, there appears to be no need to reduce the buffer in this area;
- The HMP does not address the two stormwater outfalls that would be constructed in the buffer of Wetland A. Furthermore, the application materials inconsistently show where the outfalls (both western and eastern) will be located. Grette Associates recommends that materials be revised accordingly for consistency and compliance with Chapter 16.20 of the PMC;
- The HMP does not provide any analysis with respect to potential impacts from stormwater discharge. As summarized above, Grette Associates cannot concur with the HMP that there will be no direct and/or indirect impacts that will occur as a result of the stormwater outfalls.

Three of the four outfall pipes are sized to be 24 inches which suggests there would be stormwater discharge at a volume that would have the potential to scour, which would likely cause erosion and water quality issues if not adequately diffused. Per PMC 16.20.305, the purpose of Section 300 of Chapter 16.20 of the PMC is to preserve existing ecological functions of fish and wildlife habitat conservation areas. Grette Associates recommends that the HMP be revised to provide an analysis to clearly demonstrate that the proposed outfalls will adequately diffuse velocities to mitigate any potential erosion and/or water quality issues;

- The civil plans provided to Grette Associates show the 24-inch stormwater outfall associated with the western stormwater pond extending into the Type F2 stream (Figure 1). If the civil plans show the correct location where this outfall will be constructed the HMP will need to be revised to address the direct impacts to the stream for compliance with Chapter 16.20 of the PMC;
- Per PMC 16.20.320, the proposed crossing shall not diminish flood-carrying capacity. The HMP needs to provide a brief discussion to demonstrate that the proposed culvert size will not diminish flood-carrying capacity.

This review was conducted using the best available scientific information and methodologies and the best professional judgement of Grette Associate's staff biologists. Final acceptance and approval of the reports is at the discretion of City staff.

If you have any questions regarding this review, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,

GRETTE ASSOCIATES^{LLC}

Chad Wallin
Biologist

References:

Grette Associates, LLC. 2020a. Olso Bay Apartments - Wetland Delineation and HMP: Third-party Review. Prepared for the City of Poulsbo. January 31, 2020.

Grette Associates, LLC. 2020b. Olso Bay Apartments - Wetland Delineation and HMP: Third-party Review. Prepared for the City of Poulsbo. July 1, 2020.

Grette Associates, LLC. 2020c. Olso Bay Apartments - Critical Areas Report: Third-party Review. Prepared for the City of Poulsbo. September 3, 2020.

Ecological Land Services. 2020. Non-Wetland Determination: KCPW Recycling Center. Kitsap County parcel 102601-4-028-2003. Prepared for Edward Rose and Sons. Revised November 4, 2020.

Ecological Land Services. 2020. Critical Areas Report: Oslo Bay Apartments. Prepared for Edward Rose and Sons. Revised November 4, 2020.

Ecological Land Services. 2020. Habitat Management Plan: Oslo Bay Apartments. Prepared for Edward Rose and Sons. Revised November 4, 2020.