



September 24, 2020

Mark Perkoski  
Edward Rose and Sons  
PO Box 2011  
Bloomfield Hills, MI 48303

Re: Edward Rose and Sons, Oslo Bay Apartments, Stormwater Guidelines Assessment-  
Revised.

Dear Mark,

Ecological Land Services, Inc. (ELS) has been asked to provide specific documentation for the wetland hydroperiod analysis completed by Clear Creek Solutions Inc and the proposed stormwater plan to determine if it is consistent with the requirements of the 2012/2014 Stormwater Management Manual for Western Washington for discharging into wetlands. Guide Sheets 2 and 3 of the 2014 manual as they apply to Minimum Requirement 8 from the 2019 manual are assessed in this letter. Our understanding is that stormwater will be discharged into Wetland A (in three separate subbasins) and Wetland B from the East and West Basin Stormwater Ponds, respectively. No stormwater discharge is proposed into Wetland C because it is outside the basins of both Wetlands A and B; Wetland C follows the ditch along Bond Road, which discharges into Dogfish Creek, so bypasses both Wetlands A and B.

Peer review comments of January 2020 requesting changes to the rating of each wetland and revision of the Habitat Management Plan and this stormwater assessment are incorporated into this report. Comments during peer review indicate a disagreement with the rating of the three wetlands. As discussed in the Critical Areas Report, dated August 14, 2020, for the Oslo Bay Apartments, the rating for Wetland A was upgraded to a Category III; Wetlands B and C remain Category IV systems. There were also comments regarding the wetland assessment presented in the November 2019 report stating that the ELS assessment did not address all of the criteria in Guide Sheet 3. This report includes the information for Guide Sheets 2 and 3.

### **2012/2014 Stormwater Design Manual-**

#### **Guide Sheet 2: -Criteria for including wetlands as a treatment or flow control BMP/Facility**

1. *It is classified in Category IV in the "Washington State Wetland Rating System of Western Washington," or a Category III wetland with a habitat score of 19 points or less.*

Wetland A is rated as a Category III with 6 habitat points and Wetland B is rated as a Category IV with 5 habitat points. The habitat score of 6 points for Wetland A equates to a score of greater than 19 points using the 2004 rating system. The habitat score of 5 points for Wetland B equates to a score of less than 19 points in the 2004 rating system.

2. *You can demonstrate that there will be "no net loss" of functions and values of the wetland as a result of the structural or hydrologic modifications done to provide control of runoff and water quality. This includes the impacts from the machinery used for the construction.*

*Heavy equipment can often damage the soil structure of a wetland. However, the functions and values of degraded wetlands may sometimes be increased by such alterations and thus would be self-mitigating. Functions and values that are not replaced on site will have to be mitigated elsewhere.*

The stormwater plan proposes no work within the wetlands to construct the storm ponds so there will be no impact to the soil structure of either wetland. The wetlands are not degraded to the point where alterations will improve the function or value for stormwater containment. However, there should be no net loss of wetland functions or values.

- a. *Modifications that alter the structure of a wetland or its soils will require permits. Check with the agency(ies) issuing the permits for the modification(s) to determine which method to use to establish “no net loss.”*

The stormwater plan proposes the ponds outside of each wetland so there will be no modifications that alter the structure of the wetlands or their soils.

- b. *A wetland will usually sustain fewer impacts if the required storage capacity can be met through a modification of the outlet rather than through raising the existing overflow.*

The stormwater plan uses the upland areas for the pond locations and the discharges will end near the wetlands. There is no plan to use the wetlands for direct storage of stormwater that would necessitate modification of the outlet or raising the existing overflow.

3. *The wetland does not contain a breeding population of any native amphibian species.*
  - Most of the amphibian species in western Washington breed in or near wetlands, vegetated shallows of lakes, and slow-moving streams.
  - The onsite wetlands are slope systems that have seeps and consist of forested communities. Because of their position on slopes, they both lack seasonal and permanent ponds in which most of the native amphibian species can reproduce.
  - No evidence of breeding populations of native amphibians was observed during assessment of the onsite wetlands.
  - The research indicates that some salamander species and at least one frog species are found amongst rotting logs or underground in uplands adjacent to wetlands.
4. *The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, and 5 of Chart 4 and questions 2, 3, and 4 of Chart 5 in the “Guide for Selecting Mitigation Sites Using a Watershed Approach,” or the wetland is part of a priority restoration plan that achieves restoration goals identified in a Shoreline Master Program or other local or regional watershed plan.*

Wetlands A, B, and C are rated as slope wetlands and do not represent riverine/floodplain systems (Chart 4) or depressional systems (Chart 5). Although they are slope wetlands, Charts 4 and 5 were followed to determine if there is potential for improvement of hydrology functions. These wetlands have no site constraints such as dike or other structure that keep overbank flooding from the wetland, there are no ditches that drain floodwaters too quickly, and there is no fill within these wetlands that can be removed to increase overbank storage.

Based on the absence of site constraints, the hydrologic function of Wetlands A and B cannot be improved.

5. *The wetland lies in the natural routing of the runoff and the discharge follows natural routing.*

Per the civil project plans, the stormwater basin area serving each wetland has been maintained for the post-construction condition by routing stormwater into separate drainage conveyance systems serving each basin per the Oslo Bay Apartments Drainage Report (October 2020). The discharge to Wetland A is proposed in three separate subbasins defined by topography to spread the flow of stormwater into three different portions of Wetland A in order to reduce potential impacts and meet the other criterion discussed in this document.

Wetlands A, B, and C are relatively undisturbed in that they do not have ditches, fills or dikes that influence the outflow of water. They do not appear to have designated amphibian habitat that would be affected by discharge of stormwater into either wetland. Therefore, they do not represent disturbed wetlands that would benefit from stormwater discharge.

#### **Method 2 criteria:**

- *Category I or II wetlands that are off-site or the project proponent doesn't have legal access to conduct monitoring in the wetland*
  - There are no Category I or II wetlands on or offsite.
- *Category I or II riverine, slope or lake-fringe wetlands,*
  - The wetlands are not Category I or II.
- *Category III and IV wetlands with habitat score greater than 5,*
  - Wetland A is rated a Category III with a habitat score of 6 points so falls under the Method 2 criterion. Wetlands B and C are rated Category IV wetlands with habitat scores of 5 points or less so do not require assessment using the Method 2 criterion.
- *Category III or IV interdunal special characteristic wetlands,*
  - None of the wetlands are interdunal.
- *Category III and IV wetlands that provide habitat for rare, threatened, endangered or sensitive species,*
  - There is no habitat within the wetlands for rare, threatened, endangered, or sensitive species.
  - Federal and state listed amphibian species do not occur in Kitsap County.
- *Category III and IV wetlands that contain a breeding population of any native amphibian species.*
  - Most of the amphibian species in western Washington breed in or near wetlands, vegetated shallows of lakes, and slow-moving streams.
  - The onsite wetlands are slope systems that have seeps and consist of forested communities. Because of their position on a slope there are no seasonal or permanent ponds in which most of the native amphibian species can reproduce.
  - No evidence of breeding populations of native amphibians was observed during assessment of the onsite wetlands.
  - The research indicates that some salamander species and at least one frog species are found amongst rotting logs or underground in uplands adjacent to wetlands.

- *If the wetland has permanent or seasonal ponding or inundation, assume that it has a breeding population of native amphibians.*
  - There are no seasonal or permanent ponding or inundation areas within any of the onsite wetlands.
- *For seasonal ponding, if the wetland has surface ponding after May 1 of a normal water year or drier, assume that it has a breeding population of native amphibians.*
  - There are no areas of seasonal ponding so there is no surface pond after May 1 of a normal water year or drier.

### **Guide Sheet 3-Wetland Protection Guidelines**

#### ***Guide Sheet 3a-General Guidelines for protection functions and values of wetlands***

1. *Consult regulations issued under federal and state laws that govern the discharge of pollutants. Wetlands are classified as "Waters of the United States" and "Waters of the State" in Washington.*

The stormwater detention facilities have been designed per local and state guidelines and requirements. A Hydraulic Project Approval (HPA) will be obtained as needed from the Washington Department of Fish and Wildlife (WDFW).

2. *Maintain the wetland buffer required by local regulations.*

The wetland and stream buffers will be maintained at their required widths. The buffer of Wetland B falls within the 150-foot buffer required for the associated stream and while the stream buffer will be averaged, the wetland buffer will not be affected.

3. *Retain areas of native vegetation connecting the wetland and its buffer with nearby wetlands and other contiguous areas of native vegetation.*

The stream buffer will be an average width of 150 feet so areas of native vegetation will be retained within 100 feet of the buffer of Wetland B.

4. *Avoid compaction of soil and introduction of exotic plant species during any work in a wetland.*

There will be no equipment use within the wetlands and there will be no vegetation removal within the buffers required for the wetlands.

5. *Take measures to avoid general urban impacts (e.g., littering and vegetation destruction). Examples are protecting existing buffer zones; discouraging access, especially by vehicles, by plantings outside the wetland; and encouragement of stewardship by a homeowners' association.*

Buffer zones will be maintained at the widths required by the City of Poulsbo Municipal Code and less intensive development is proposed outside these buffers. There will be no vehicle access to the wetlands or buffers and the existing forested conditions will remain so plantings are not warranted. The development proposes an apartment complex that will have a maintenance department that will keep areas clean and free of litter and vegetation destruction.

6. *Fences can be useful to restrict dogs and pedestrian access, but they also interfere with wildlife movements. Their use should be very carefully evaluated on the basis of the relative importance of intrusive impacts versus wildlife presence. Fences should generally not be installed when wildlife would be restricted, and intrusion is relatively minor. They generally*

*should be used when wildlife passage is not a major issue and the potential for intrusive impacts is high. When wildlife movements and intrusion are both issues, the circumstances will have to be weighed to make a decision about fencing.*

Fences are proposed along the wetland and stream buffers to discourage use by pedestrians in Wetlands A and B.

- 7. If the wetland inlet will be modified for the stormwater management project, use a diffuse flow method, (e.g. [BMP C206: Level Spreader](#), and [BMP T5.10B: Downspout Dispersion Systems](#)) to discharge water into the wetland in order to prevent flow channelization.*

There are no direct surface water inlets to either wetland as they are both fed by groundwater discharge. Diffuse flow methods will be used at the discharge point to control the flow of water into or toward the wetlands.

### ***Guide Sheet 3B-Protecting wetlands from impacts of changes in water flow.***

*Protecting wetland plant and animal communities depends on maintaining the existing wetland's hydroperiod. This means maintaining the annual fluctuations in water depth and its timing as closely as possible. The risk of impacts to functions and values increases as the changes in water regime deviate more from the existing conditions. These changes often result from development.*

*Hydrologic modeling is useful to measure or estimate the aspects of the hydroperiod under existing pre-project and anticipated post-project conditions. Post-project estimates of the water regime in a watershed and wetland hydroperiod must include the cumulative effect of all anticipated watershed and wetland modifications.*

*Criterion 1: total volume of water into a wetland during a single precipitation event should not be more than 20% higher or lower than the pre-project volumes.*

Criterion 1 provides guidance for predicting the potential impacts to the valuable wetlands listed in Guide Sheet 1, which include Category I and II depressional and riverine impounding wetlands and Category III and IV wetlands scoring more than 5 points for habitat functions. Wetland A is a Category III slope system that scores 6 points for habitat so the stormwater plan must be modeled and designed to meet this criterion in order to propose discharge into Wetland A. Discharge from the East Basin Stormwater Pond has been modeled using three drainage subbasins based on topography that flow toward Wetland A. The modeling shows that the proposed discharge to Wetland A meets this criterion (see Clear Creek Solutions, Inc. drainage modeling). Wetlands B and C are Category IV slope systems score 5 points or less for habitat, so this criterion does not apply to these wetlands.

*Criterion 2: Total volume of water into a wetland on a monthly basis should not be more than 15% higher or lower than the pre-project volumes.*

This criterion applies to Category I and II wetlands that are depressional, riverine impounding and Category III and IV wetlands that score more than 5 points for habitat functions. Wetland A is rated a Category III and as discussed above for Criterion 1, the modeling conducted for East Basin Stormwater Pond, which will discharge to Wetland A, indicates that the discharge amounts will not exceed the 15% threshold. Therefore, Criterion 2 is met for Wetland A. Wetlands B and C are Category IV slope wetlands that score 5 points or less for habitat functions so Criterion 2 does not apply to either of these wetlands.

If there are any questions regarding the analysis of the onsite wetlands, please contact me at 360-674-7186, extension 1201 or [joanne@eco-land.com](mailto:joanne@eco-land.com).

Sincerely,



Joanne Bartlett, SPWS  
Senior Biologist