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May 5, 2016

Ms. Alana McCoy, Project Manager
Mr. Boyd Benson, P.E., L.E.G., City Engineer
City of Duvall
P.O. Box 1300
Duvall, Washington 98019

Subject: Big Rock Sports Park Multipurpose Field Improvements – Sensitive Areas Documentation

Dear Alana and Boyd:

Environmental Science Associates (ESA) has prepared this letter to document potential wetlands and streams on-site and within off-site areas adjacent to the proposed improvements to the multipurpose fields at Big Rock Sports Park. The City is undertaking the Big Rock Sports Park Improvement Project (Project) to promote increased soccer and baseball field use.

Our review is based on our project understanding and materials provided by the City, including the Big Rock Park Multipurpose Field Site Plan (prepared by DA Hogan, dated April 7, 2016), Duvall Meeting House Site Plan (prepared previously for the property to the north by Patrick Harrison & Associates, LLC, dated June 17, 2008), a site visit with City staff Alana McCoy and Boyd Benson on April 28, 2015, and other information (email and phone communication with City staff).

The purpose of our evaluation is to ensure Project consistency with the City's Sensitive Areas regulations (Duvall Municipal Code [DMC] 14.42) pertaining to wetlands and streams. ESA scientist Jessica Redman visited the site on April 28, 2016 to identify wetlands and streams within and surrounding the Project site.

Project Summary

The City proposes improvements to the existing eastern fields at Big Rock Sports Park. The fields, including an existing baseball/softball field and an existing soccer field, have had persistent drainage issues impeding field use, and the existing soccer field has an uneven surface. The existing field will be renovated to new public multipurpose fields, including areas with softball, soccer, mod soccer and lacrosse markings. The field will be designed to accommodate one full size soccer / lacrosse field and one full size softball field, or up to five modified youth soccer fields. Improvements include the installation of up to 150,000 square feet (SF) of infilled synthetic turf surface and improved drainage. LED field lights will be installed around the perimeter of the field to accommodate nighttime use. Field lights will have protective screens to reduce light impacts in the vicinity of the field. Additionally, the project will include construction of accessible pathways, the addition of 13 parking spaces, and landscaping. The south slope of the existing stormwater pond on the northern edge of the property will be modified with a concrete wall to maximize field area, and new netting and fencing will be provided between the improved fields and the pond.

Existing Information Review

A review of existing literature, maps, and other materials was conducted to identify wetlands or site characteristics indicative of wetland presence in the vicinity of the project area including:

- City of Duvall Comprehensive Plan Sensitive Areas Mapping;

- Information and adjacent site plans (Duvall Meeting House Site Plan) provided by the City;
- Existing wetland mapping from the National Wetland Inventory (NWI);
- Priority Habitats and Species data; and
- King County iMAP Interactive Mapping Tool

One wetland is mapped on northeast side of the existing field by the City, NWI, and King County. This wetland was determined by the City to be mapped at a “low confidence level” (City of Duval Sensitive Areas Mapping – Wetlands, 2015 Draft) since the boundary was based on NWI and King County inventory mapping, did not include a finer scale of inventory mapping such as Color-infrared (CIR) imagery, and had not been field verified.

An additional wetland is mapped on the Duvall Meeting House Site Plan, as provided by the City, on the parcel immediately adjacent to the northern storm pond. This area is currently located in unincorporated King County. According to the Duvall Meeting House Site Plan, this off-site wetland is rated a Category II wetland requiring a 125-foot buffer per King County Code (KCC) 21A.24.325). No streams or additional critical areas are mapped on or adjacent to the Project site.

Site Investigation and Off-Site Review Methods

During the April 28, 2016 site investigation, ESA biologist Jessica Redman reviewed existing field conditions and walked the perimeter of the Project site to identify the presence of wetlands and/or streams and associated buffers that may be impacted by the Project. In addition to the Project parcel, assessments focused on the northern, northeastern, and southern sides of the existing field where the mapped wetland described above would occur; where private properties are abutting the proposed improvements; and where existing information was not available. No access was granted to enter these parcels, and observations were made from the park boundary out to approximately 150 feet to ensure that the assessment area included the largest wetland buffer possible under DMC 14.42.210. In order to assess the presence of wetlands, without performing a formal wetland delineation, the presence of hydrophytic vegetation, wetland hydrology, and changes in topography were noted.

Investigation Results

No wetlands or streams were observed on the Project site or are believed to exist within 150 feet of proposed improvements. Vegetation on-site is primarily mowed grass with no signs of wetland vegetation or hydrology.

The adjacent properties are forested and dominated by red alder and Douglas fir; a shrub understory dominated by Indian plum and large vine maple; and a thick groundcover dominated by Pacific bleeding heart and miner’s lettuce, with several sword fern interspersed. Of the dominant vegetation observed, only two species (red alder and miner’s lettuce) have a wetland indicator status (WIS) of “facultative”, meaning they have a probability of occurring in a wetland 34% to 66% of the time or are equally likely to occur in wetland or non-wetlands. The remaining five dominant species observed all have a WIS of “facultative upland” meaning they have a 67% to 99% probability of occurring in a non-wetland. No wetland hydrology indicators, such as marks of ponding or saturated soils, were observed. In addition, the topography is generally flat, and no depressions or slopes that may result in wetland hydrology were observed. Therefore, due to the lack of wetland indicators (primarily the dominance of upland vegetation species), it is believed that wetlands are not present within 150 feet of the Project, except where the previously delineated wetland occurs on the Duvall Meeting House Site Plan to the north, within King County jurisdiction.

The Category II wetland mapped on the Duvall Meeting House Site Plan is shown as requiring a 125 foot buffer consistent with King County Code 21A.24.325. This indicated that the off-site wetland to the north was assessed as a Category II wetland with a habitat score of 20 points. Translating this scoring to standard buffer widths required by City Sensitive Areas Ordinance requirements, a Category II wetland with a habitat score of 20 points

would require an 80-foot buffer (DMC 14.42.210). ESA reviewed areas within 80 feet of the off-site wetland to assess potential for wetland buffer impacts. While the required 80-foot buffer does extend onto the Big Rock Sports Park property, the extent is limited to the northern edge of the existing stormwater pond. Based on the Field Site Plan and review of the previously delineated off-site wetland extent, proposed Project improvements are well outside the standard 80-foot wetland buffer required for the Category II wetland.

ESA also reviewed the Project site and surrounding areas for fish and wildlife habitat conservation areas, consistent with DMC 14.42.300. No indication streams or other areas or habitats associated with Federally listed species or State priority species were identified. It is anticipated that numerous wildlife species to Puget Sound lowland areas utilize areas surrounding the Project site. The proposed use of protective screens around LED field lights, as well as limited hours of nighttime field use, will minimize ongoing impacts from the field on vicinity wildlife. ESA does not recommend any additional measures to minimize ongoing impacts from the proposed field improvements.

Because the proposed Project will not impact any wetlands or streams or their required buffer, or any other fish and wildlife habitat conservation areas we conclude that the Project is consistent with the City's Sensitive Areas regulations pertaining to wetlands and fish and wildlife habitat conservation areas.

Limitations

Within the limitations of schedule, budget, and scope-of-work, we warrant that this review was conducted in accordance with generally accepted environmental science practices, including the technical guidelines and criteria in effect at the time this review was performed. No other warranty, expressed or implied, is made.

If you have any questions, please call us at (206) 789-9658.

Sincerely,
ESA



Jessica Redman
Associate Scientist



Aaron Booy
Natural Resource Specialist