



# Technical Memorandum #1



**Subject:** Environmental Site Review

**By:** Jeff Gray, Sr Wetland Biologist

**Date:** May 12, 2017

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This design memorandum presents criteria, recommendations, and other relevant information for project consideration on the above referenced subject.

## **Acknowledgement:**

Significant discussion and agency comments during review are incorporated and reflected by date-revision, when shown. Information presented herein represents final concurrence and direction on referenced subject.

|                           |                 |
|---------------------------|-----------------|
| <b><u>Otak</u></b>        | <i>initials</i> |
| Mark Cole, PE, Proj.Mgr.  |                 |
| <b><u>F.C.M.P.D.</u></b>  | <i>initials</i> |
| Kirk Harris, Commissioner |                 |

## **Introduction**

The purpose of this technical memorandum for the West Side Trail Project is to 1) describe the results of the environmentally critical areas site survey, and 2) list environmental constraints to inform the alignment, design, and construction of the trail. Critical areas reviewed for this project include wetlands, aquatic areas (streams and lakes), wildlife habitat conservation areas, and their buffers as regulated by King County Code (KCC) Chapter 21A.24 (Critical Areas), last updated January 17, 2017. The proposed project is the construction of a paved pedestrian trail 4,800 feet in length parallel to the south side of the State Route (SR) 202 from SE 42<sup>nd</sup> Street to SE 40<sup>th</sup> Street in Fall City, King County, Washington. Biologists from Otak, Inc. (Otak) completed a field survey for critical areas and their buffers within the study area for the project on January 19, 2017.

## **References**

- Hruby, T. 2004. Washington State Wetland Rating System for Western Washington. Washington State Department of Ecology Publication # 04-06-025. Olympia, Washington.

- NRCS. 2017. Web Soil Survey. United States Department of Agriculture. Available online at <http://websoilsurvey.nrcs.usda.gov/>, accessed January 13, 2017.
- U.S. Fish and Wildlife Service (USFWS). 2017. National Wetlands Inventory website. U.S. Department of the Interior, Washington D.C. Available online at <http://www.fws.gov/wetlands>, accessed on January 13, 2017.
- Washington Department of Fish and Wildlife (WDFW). 2017. PHS on the Web. Available online at <http://apps.wdfw.wa.gov/phsontheweb/>, accessed on January 12, 2017.
- King County GIS Center. 2017. King County iMap Interactive Mapping Tool. Available online at <http://www.kingcounty.gov/services/gis/Maps/imap.aspx>, accessed on January 12, 2017.

## Methods

The project site for the proposed trail is identified as the south side of SR 202 within the Washington State Department of Transportation (WSDOT) right of way (ROW). The study area for the critical areas survey included the WSDOT ROW along the north and south sides of SR 202 for the length of the proposed trail plus 100 feet beyond the ROW boundary. Critical areas beyond the ROW were estimated based on field observations and review of background information.

In accordance with federal, state, and local guidance and regulations, Otak biologists surveyed for the presence of wetlands in the study area using the three-parameter approach detailed in the *Corps of Engineers Wetlands Delineation Manual* (USACE, 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010). Data on vegetation, soils, and hydrology were collected to document site conditions to support regulatory permitting for the project.

Wetlands in the study area were classified according to the *Classification of Wetlands and Deepwater Habitats of Untied States* (Cowardin, et al. 1979), and the hydrogeomorphic (HGM) wetland classification as adopted by Hruby (2004). Wetland functions were rated using the *Washington State Wetland Rating System for Western Washington* (Hruby 2004) in accordance with KCC Chapter 21A.24.318 (Wetlands-categories). Wetland buffer widths were determined per KCC Chapter 21A.24.325 (Wetlands-buffers) for high impact land use outside of the Urban Growth Area.

Background information reviewed prior to completing the field survey included United States Natural Resources Conservation Service (NRCS) soils data (NRCS 2017), National Wetlands Inventory (NWI) map (USFWS 2017), Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) maps (WDFW 2017), King County iMap (King County 2017), and aerial photo of the vicinity using public web-based mapping service (Google Maps 2017). Wetlands are mapped by NWI, WDFW, and King County in an oxbow in the Snoqualmie River floodplain that abuts the north side of SR 202. King County

iMap also shows the 100-year flood plain boundary on the north side of the SR 202 road embankment outside of the project site.

## Findings

No wetlands, aquatic areas, or wildlife habitat conservation areas were mapped in the project site south of SR 202. Several grass-lined roadside ditches parallel SR 202 on both sides of the road, and were determined not to be regulated due to the absence of wetland and stream characteristics. Outside of the project site, a large wetland complex (Wetland A) was confirmed in the Snoqualmie River oxbow on the north side of SR 202 between Chief Kamlin Middle School and 332<sup>nd</sup> Avenue NE. The wetland boundary is at the SR 202 road embankment toe of slope as shown on Figure 1 - West Side Trail Wetland and Buffer Map. The Wetland A boundary was estimated using the 85-foot contour line on a topographic map that closely matched the toe of slope.

Wetland A is likely classified as Category II with a total score of 69 for functions (score of 25 for habitat functions). Based on the wetland category, habitat score, and low impact land use, Wetland A has a buffer of 112.5 feet that extends to the south across SR 202 into the project site. Vegetation in the portion of the Wetland A buffer in the project site includes a mix of roadside grasses, mature conifer and deciduous trees, and native and ornamental shrubs. Two cross drains under SR 202 convey water from roadside ditches within the Wetland A buffer on the south side of the road to Wetland A on the north side of the road.

Per KCC Chapter 21A.24.325(D)4, wetland buffers widths can be reduced in special circumstances, such as where a legally established roadway transects a wetland buffer. In such a case the KC



Figure 1 – West Side Trail Wetland and Buffer Map

Department of Permitting and Environmental Review (KCDPER) may approve a modification of the minimum required buffer width to the edge of the roadway if the part of the buffer on the other side of the roadway sought to be reduced:

- a. Does not provide additional protection of the proposed development or the wetland; and
- b. Provides insignificant biological, geological, or hydrological buffer functions relating to the other portion of the buffer adjacent to the wetland.

In a phone call with Laura Casey from KCDPER on Thursday, February 9, 2017, KCDPER agreed to limit the Wetland A buffer to the north side of SR 202 and not extend it south across the roadway into the project area. Therefore, there is no wetland buffer in the project area. The wetland buffer reduction will be granted during the application review for the clearing and grading permit that will be required to be obtained from KCDPER to authorize construction.

Regarding wildlife habitat conservation areas, WDFW PHS mapped within the study area include freshwater forested/shrub wetlands and gray wolf (*Canis lupus*). Gray wolf is mapped as occurring in the same Township (Public Land Survey System) as the study area, but suitable habitat for gray wolf is not present nor is the species likely to occur in the study area. Breeding or nesting sites for bald eagle (*Haliaeetus leucocephalus*), great blue heron (*Ardea herodias*), marbled murrelet (*Brachyramphus marmoratus*), northern goshawk (*Accipiter gentilis*), osprey (*Pandion haliaetus*), peregrine falcon (*Falco peregrinus*), spotted owl (*Strix*

*occidentalis*), Townsend's big-eared bat (*Corynorhinus townsendii*), or Vaux's swift (*Chaetura vauxi*) were not observed in the study area.

## Conclusions and Recommendations

1. Regarding critical areas administered by KCDPER per KCC Chapter 21A.24 (Critical Areas), there are no environmental constraints for the trail design because there are no critical areas in the project area.
2. During final design, included the communication record of discussion with King County regarding limiting the wetland buffer to the north side of SR 202 with submittal of clearing and grading permit approval to King County.



| Communication Record  |                                       |              |              | Page   | 6 | of | 7 |
|---|---------------------------------------|--------------|--------------|--|---|----|---|
| Notes Issued By:  | Jeff Gray                             |              | Project No.: | 32649  |   |    |   |
| Subject/Project:  | Wetland buffer widths/West Side Trail |              | Date/Time:   | 10 AM<br>2/9/17  |   |    |   |
| <input checked="" type="checkbox"/> Telephone   | Talked To:                            | Laura Casey  | Of:          | King County Dept. of Permitting and Environmental Review   |   |    |   |
|   | Phone No.:                            | 206-477-0368 | Fax No.:     | -  |   |    |   |
| <input type="checkbox"/> Memo   | To:                                   | Mark Cole    | From:        | Jeff Gray  |   |    |   |
| <input type="checkbox"/> Meeting  | Attending:                            | -            |              |  |   |    |   |
|   | Location:                             | -            |              |  |   |    |   |
| <p><b><u>Discussion:</u></b><br/>In a phone call with Laura Casey from King County Department of Permitting and Environmental Review (KCDPER) on Thursday, February 9, 2017, Laura said that the KCDPER would limit the wetland buffer on the north side of State Route 202 to the northern road edge. Therefore, the wetland buffer does not extend the into the trail project area on the south side of the road.</p> <p>There's no mechanism to formally grant this reduction prior to submitting the land use permit applications to KCDPER; however, she said that it would be granted during their review of the clearing and grading permit application. She drives this stretch of road frequently and is familiar with the area in question.</p> |                                       |              |              | <p><b><u>Action:</u></b><br/>Inform design team of no site constraints or design requirements (e.g. mitigation plantings) for working in a wetland buffer.</p> |   |    |   |

## Exhibit \_\_\_\_

### Significant Discussion Topics during Agency (Client) Memorandum Review

The below summary represent relevant discussion occurring during agency memorandum review in validating presented information and incorporating memorandum changes to reflect final agency direction.

*[To be completed at time of final concurrence]*