Critical Areas Reconnaissance and Hydrologic Assessment for the Central Kitsap School District Central Kitsap Middle and High School Silverdale, Washington

Prepared for:
Central Kitsap School District
PO Box 8
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(360) 271-9207

Prepared by:

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SIGNATURE PAGE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.

Joanne Bartlett, PWS Senior Biologist

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by Central Kitsap School District (CKSD) to complete a critical areas reconnaissance for the Central Kitsap Middle and High School (CKMS and CKHS) Reconstruction project at 10170 Frontier Place NW, parcel number 172501-4-011-2006, within a portion of Section 17, Township 25 North, Range 1 East of the Willamette Meridian, in Silverdale, Washington (Figure 1). This report summarizes the findings of a reconnaissance of the site and downslope areas to identify potential critical areas within the drainage basins of the CKSD property.

METHODOLOGY

The critical areas determination followed the Routine Determination Method in the Western Mountains, Valleys, and Coast Region according to the U.S. Army Corps of Engineers, Wetland Delineation Manual (Environmental Laboratory 1987), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0) (U.S. Army Engineer Research and Development Center, 2010).

The Offsite Determination Method examines the parameters—vegetation, soils, and hydrology—to determine if wetlands exist in a given area. For this offsite determination, the presence of vegetation was used to identify the potential presence of critical areas. Hydrology was a secondary parameter examined during the reconnaissance. Soils were not examined for this project because the potential wetlands exist offsite and permission was not given to enter the site to examine the soil conditions. By definition, wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (USACE), as "Waters of the State" by the Washington Department of Ecology (DOE), and locally by Kitsap County.

This project focused on conducting a reconnaissance of areas surrounding the CKHS and CKMS campus to assess whether future activities on the CKSD property will affect local critical areas. The site reconnaissance was conducted on October 11, 2016 and involved walking or driving over most of the campus and observing areas that adjoin the CKSD property. In addition, ELS biologists reviewed historic maps and took photos to document the current conditions. The critical areas maps obtained for the property indicate critical areas are located offsite to the southwest along Anderson Hill Road and offsite to the east along Randall Way. Steep slope critical areas are indicated along the east edge of the property but are not addressed in this report. In addition, the project biologist's past professional involvement with properties adjoining the CKSD property proved instrumental in conducting this reconnaissance.

SITE DESCRIPTION

This property is located on the west side of Anderson Hill Road and Frontier Place and north of Bucklin Hill Road in Silverdale, Kitsap County (Figure 1). The CKSD property is located at the top of the low ridge with moderately steep slopes down to Anderson Hill Road and Frontier Place

to the west and down to Randall Way on the east. CKHS is located at the south end of the property with CKMS toward the north end and the transportation facility at the northeast corner. The athletic facilities, which include practice football and baseball fields, are located between the middle and high schools. The food service buildings are located in the middle of the property and are accessed from Frontier Place. Residential development borders all sides of the CKSD property with commercial property located east along Randall Way and south along Bucklin Hill Road. Most of the CKSD property is developed with areas of forest remaining on the slopes down to the east. Remnant forested areas are located at the entrance to the athletic fields from Anderson Hill Road at Windy Ridge Road and on the east side of the CKSD property (Figure 2).

SOILS

As referenced on the U.S.D.A. Natural Resources Conservation Service (NRCS 2015) website, the soils on the CKSD property is primarily Alderwood gravelly sandy loam, 0 to 8 percent slopes (1) with a smaller area of Kapowsin gravelly ashy loam, 6 to 15 percent slopes (23) at the south end (Figure 3). Offsite to the east, the soils are also mapped as Kapowsin (23) with an area of Norma fine sandy loam (37) mapped across Randall Way. The soils offsite to the west are mapped as Alderwood gravelly sandy loam, 8 to 15 percent slopes (2) and Kapowsin (23). The soils mapped on the CKSD property and the offsite areas immediately adjacent to the property are not classified as hydric and have no inclusions of hydric soil types (NRCS 2015). Norma fine sandy loam is classified as hydric but in the mapped area, wetlands do not currently exist due to commercial development along Randall Way. Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

NATIONAL WETLAND INVENTORY

National Wetlands Inventory (NWI) maps no wetlands on the CKSD property but indicates a large wetland system offsite to the east and the stream system offsite to the west (Figure 4). The wetland mapping to the east represents historic wetlands that are no longer in existence due to the commercial development on the west side of Silverdale. The stream system mapped to the west is Koch Creek, which flows southerly into to Dyes Inlet after it joins with Strawberry Creek downstream of Anderson Hill Road. NWI maps should be used with discretion because they are used to gather general wetland information about a regional area and therefore are limited in accuracy for smaller areas because of their large scale.

KITSAP COUNTY CRITICAL AREAS INVENTORY

The Kitsap County GIS mapping tool shows the areas of potential wetland as mapped by the NRCS and the NWI, which was laid over the county tax parcel maps (Figure 5). Therefore, potential wetlands are mapped to the east of the CKSD property along Randall Way in the same areas shown on the NRCS map and the NWI. Koch Creek is mapped as indicated on the NWI map but the floodplain of the stream is included on the county map. It does not show potential wetlands associated with the stream. Critical area maps should be used with discretion because they are used to gather general wetland information about a regional area and therefore are limited in accuracy for smaller areas because of their large scale.

CONCLUSIONS

WETLAND RECONNAISSANCE

The site reconnaissance visits revealed no wetlands on the CKSD property or in the areas immediately adjacent to the property because they had all been developed (Photoplate 1). Previous professional work in the Silverdale area conducted by the project biologist revealed wetlands downslope and east of the CKSD property (Figure 2). These wetlands were identified for previous projects completed by the project biologist and include a depressional/slope wetland that begins downslope of the football and baseball fields with existing homes surrounded by conifer forest between the fields and wetland. This wetland extends to the sidewalk of Randall Way and is located just north of the First American Building at 3888 NW Randall Way (Photoplate 3). A second wetland is on the slope below the Vintage at Silverdale Apartments located at 3291 Mt Vintage Way (Photoplate 3). This wetland is a remnant of a once large wetland that was filled and mitigated for in the Clear Creek watershed (Wiltermood 2005).

Critical areas to the west include Koch Creek, which flows southerly toward Anderson Hill Road west of Frontier Place (Photoplate 2). There is a small stream that begins along Frontier Lane across from the food services building. The small stream begins abruptly at the start of a shallow ravine and flows southerly into Koch Creek. Koch Creek then flows under Anderson Hill Road and joins with Strawberry Creek several hundred feet south of the culvert (Photoplate 2). The site reconnaissance revealed that there are no wetlands present along Koch Creek on either side of Anderson Hill Road. The stream channel is at least 5 feet wide and at the time of the reconnaissance, there was rapid flow due to heavy rain events the preceding days (Photoplate 2). The forest on either side of Koch Creek is dense with a low shrub and herbaceous understory.

HYDROLOGIC ASSESSMENT

The wetland areas east of the CKSD property are on sloping terrain and primarily receive groundwater that discharges from the slope. The wetlands may also receive water from runoff generated on the adjacent developed properties but there does not appear to be any runoff directed into these wetlands from the CKSD property. It appears that perhaps some groundwater recharge is occurring on the CKSD property in the form of water from the fields and landscaping that eventually discharges into the wetland. The surface water runoff entering these wetlands appears to originate at the developed properties that are situated between the CKSD property and the wetlands. The wetlands downslope of the CKSD property have been determined to be Waters of the U.S. by the U.S. Army Corps of Engineers because they are connected to Dyes Inlet via culverts (Wiltermood 2005). This information was obtained by the project biologist during the permitting for wetland fill for the Vintage at Silverdale Apartments. The east side of the CKSD property drains easterly toward the wetlands on the adjacent properties.

Koch Creek is separated from the CKSD property by Frontier Place and it appears that some runoff may enter the stream system via the storm sewer system along Anderson Hill Road, which is downslope of the CKSD property. Water from the CKSD property does not enter the short stream west of the food service building because of the curb along the west edge of Frontier Place. Water instead appears to leave the CKSD property and flow down Frontier Place to Anderson Hill Road during severe storm events. It is unclear how it enters the Koch Creek drainage downslope of Anderson Hill Road but it likely enters a storm sewer system. It appears that the north half of the

CKSD property drains southerly into the Koch Creek basin, which joins with Strawberry Creek between Anderson Hill Road and Silverdale Loop Road (Figure 2).

OTHER HABITAT CONSIDERATIONS

The Central Kitsap School District property housing the campuses of the middle and high schools as well as the transportation center is fully developed except for remnant forested areas scattered along the perimeter and just offsite. These forested areas provide minor habitat for local wildlife species particularly those that thrive in highly developed areas including small mammals and birds. Although the school district property lacks natural habitat areas, there are existing features that are beneficial to some species for nesting and perching. One of the tall light standards at the track and field location just north of Central Kitsap High School has proven especially beneficial to local ospreys who have constructed a nest at the very top of the westernmost light standard (Figure 5, Photoplate 4). No ospreys were noted on or near the nest during the visits to the school district property because they have migrated to warmer climates for the winter season.

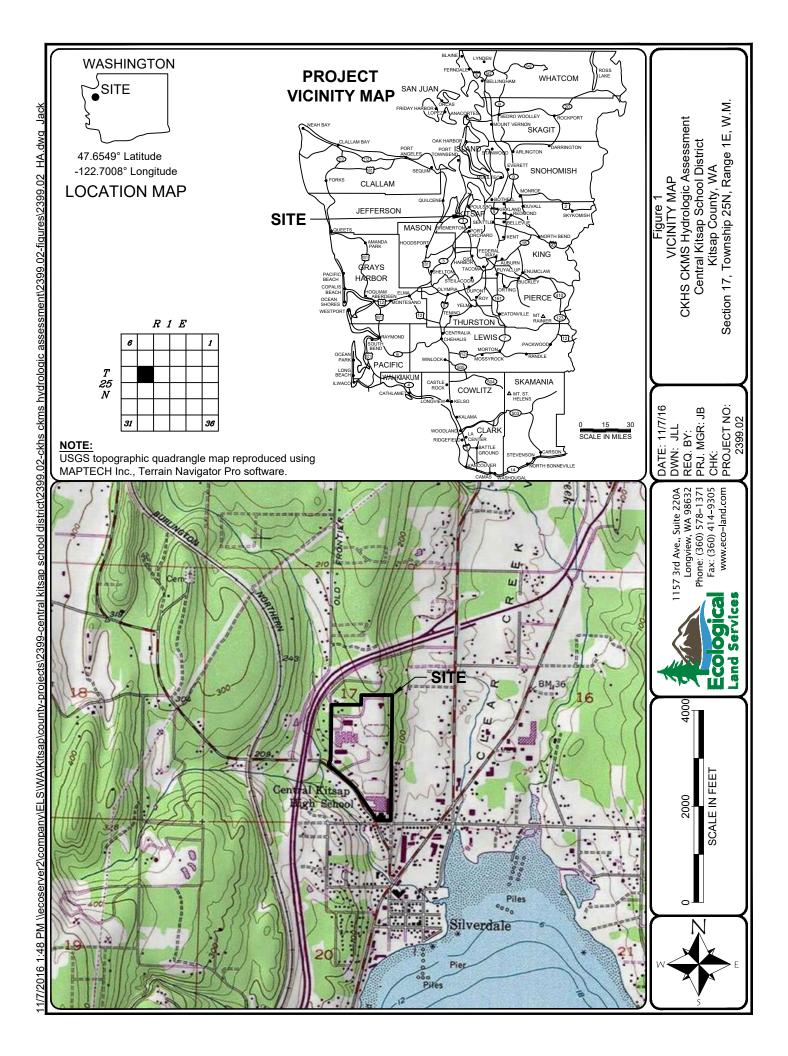
Osprey nests can be removed outside the nesting season after receiving a permit from the Washington Department of Fish and Wildlife (WDFW). Additional permits may be required from the U.S. Fish and Wildlife Service (USFWS) for nest removal during the nesting season but defers to the WDFW during the non-breeding season (Miller 2016). Replacement of the nest is not required and if voluntary replacement is proposed, a plan showing the nest and location must be submitted. Removal of the nest must be completed by an approved falconry or osprey expert (Murphie 2016). A permit has been issued by WDFW for removal of the osprey nest because it is the non-nesting season and the nest is an impediment to maintenance activities (Attachment 1).

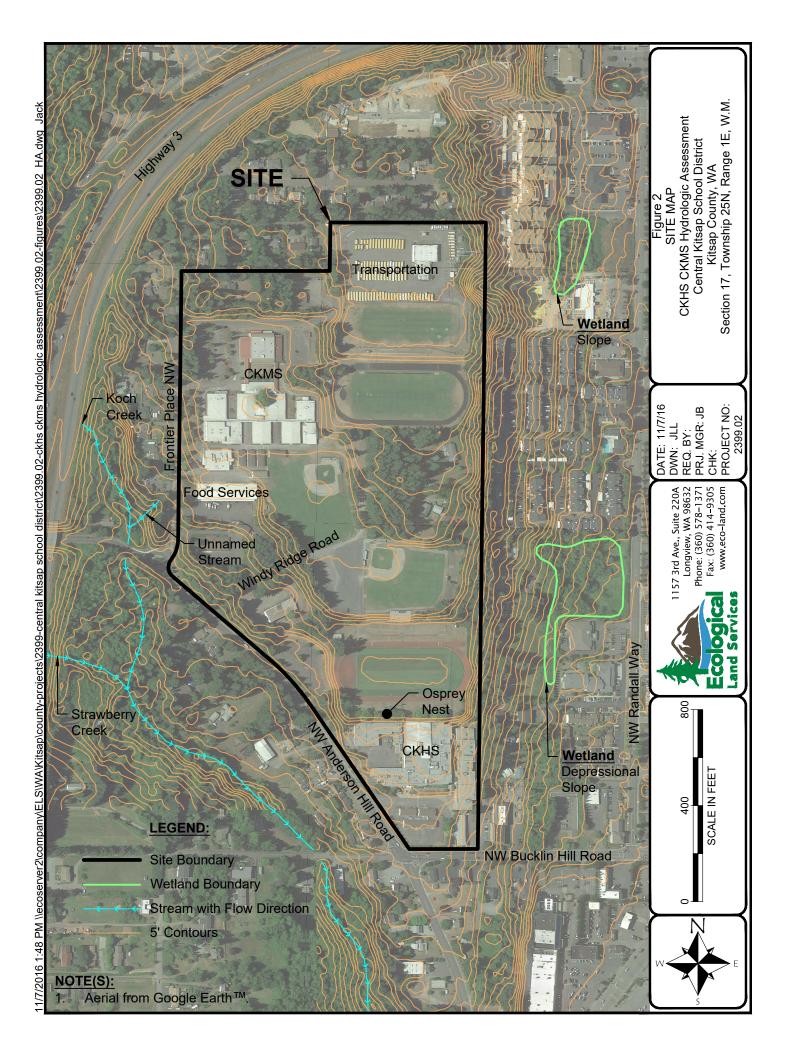
LIMITATIONS

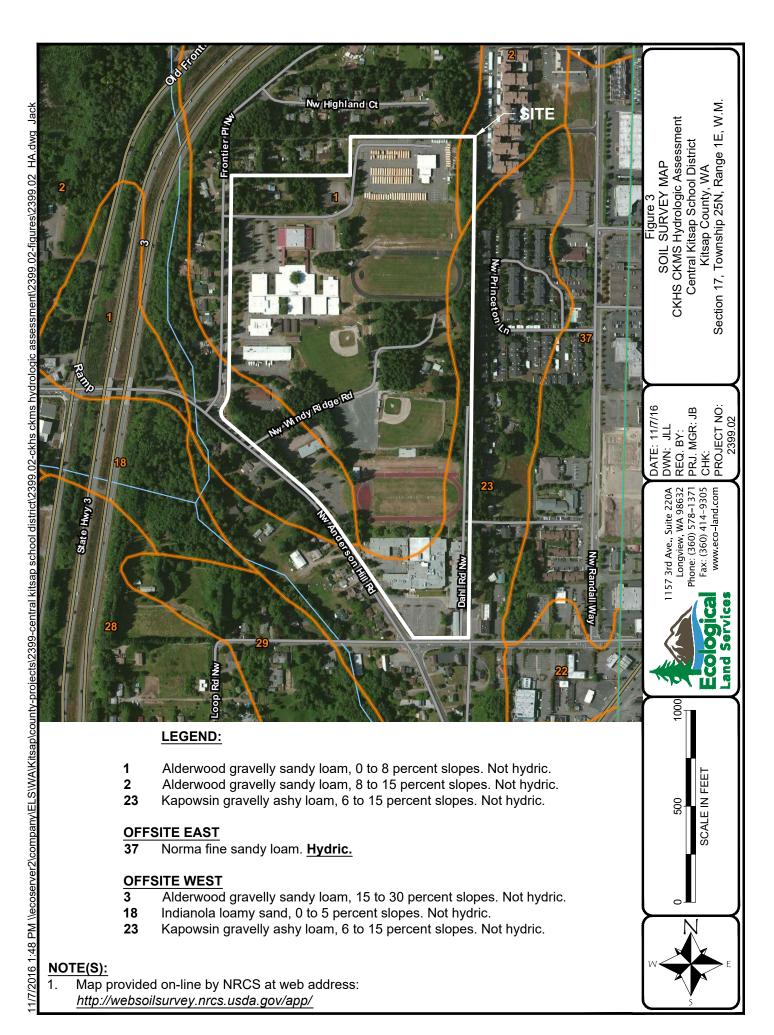
The conclusions listed above are based on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our conclusions; however, this should be considered a preliminary jurisdictional determination and should be used at your own risk until it has been reviewed and approved in writing by the appropriate regulatory agencies.

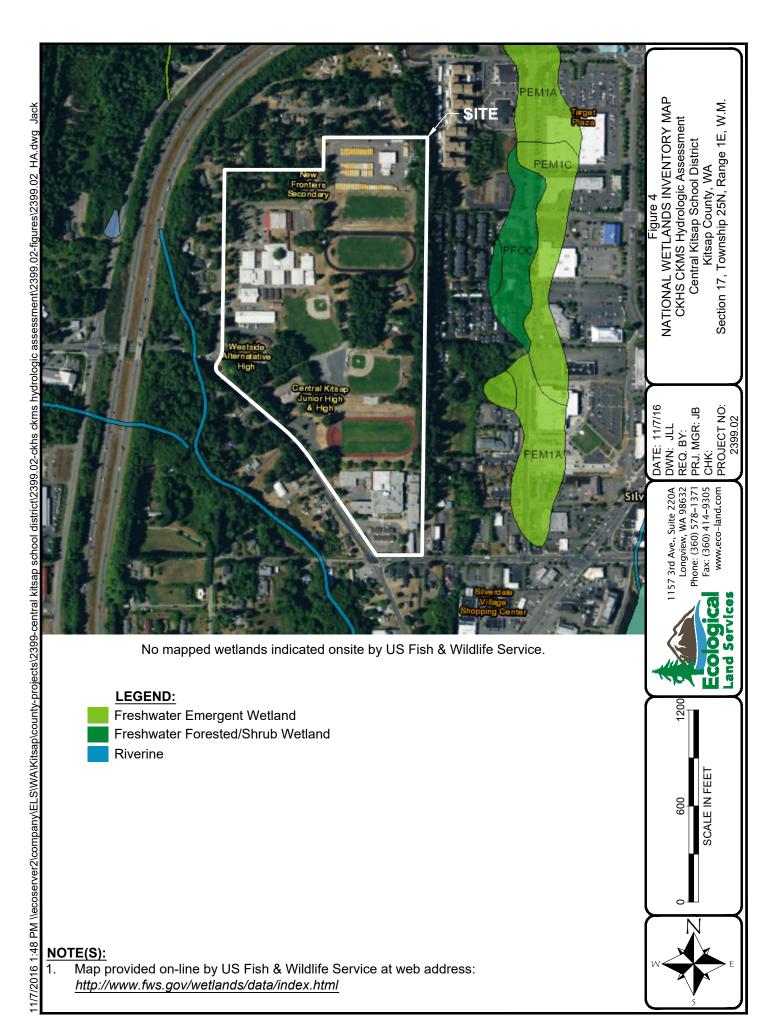
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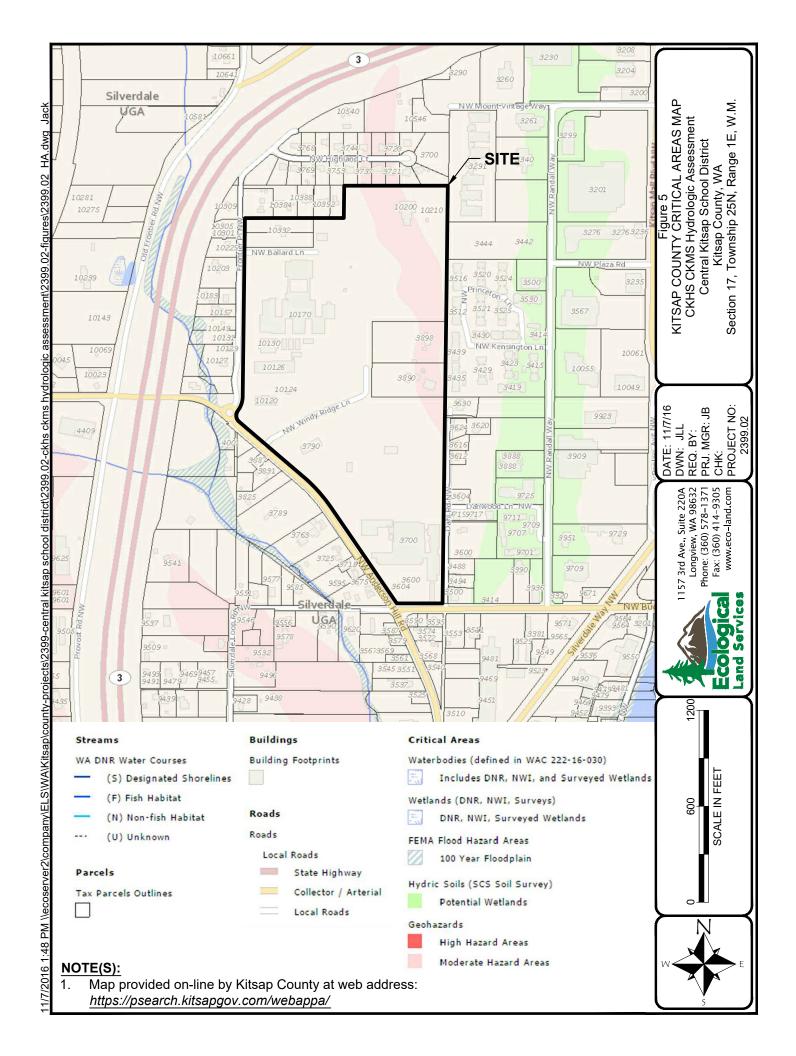




Photo 1 was taken of the short stream that begins just west of the CKSD administrative building along Frontier Place. This stream is confined to a steep sided, yet short ravine that ends a culvert under Anderson Hill Road.



Photo 2 shows another view of the stream shown in Photo 1.



Photo 3 was taken from the CKSD property and looks southwesterly across Frontier Place toward the start of the short stream in Photos 1 and 2. The stream begins just downslope of the trees in the middle of the photo.



1157 3rd Ave., Suite 220A Longview, WA 98632 (360) 578-1371 Fax: (360) 414-9305 DATE: 10/26/16 DWN: JB PRJ. MGR JB

PROJ.#: 2399.02

Photoplate 1
Project Name: CKHS/CKMS
Hydrologic Assessment
Client: Central Kitsap School
District

Kitsap County, Washington



Photo 4 was taken from Anderson Hill Road and looks down into Koch Creek before it enters the culvert under the road. The slope down to the stream is dominated by blackberry thickets. There are upland areas on both sides of the creek. The small stream enters Koch Creek about 100 feet from this point.

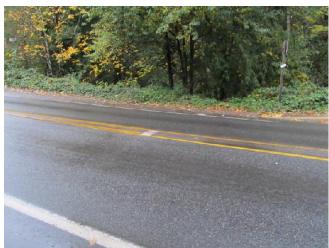


Photo 5 was taken from the south side of Anderson Hill Road and looks across the road at the culvert crossing.



Photo 6 was taken from along Koch Creek downstream of Anderson Hill Road. There is level upland on both sides of the channel. Water flow in the channel was high and fast due to recent heavy rain events.



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District
Kitsap County, Washington

Photoplate 2







Photo 7 was taken from along Randall Way across from the wetland that lies north of the First American Building. The wetland occupies the level grassy area in the middle of the photo (just beyond the road) with a sloping portion in the deciduous trees just beyond the level portion. The tall conifer trees in the upper right background are just downslope and east of the CKSD property.

Photo 8 was taken from the same location as Photo 4 and looks west across Randall Way. As described in the Photo 4 discussion, the level grassy area is composed of depressional wetland with slope wetland conditions in the tree area. The conifer trees beyond the deciduous trees are growing on property adjacent to the CKSD property.

Photo 9 was taken from the southwest corner of the Target property, which is located across Randall Way from the Vintage at Silverdale Apartment complex. The apartments are located just this side of the cell towers and conifers trees in the background with the wetland just downslope of the apartments. The lower portion of this wetland was filled to accommodate future development.



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Photoplate 3
Project Name: CKHS/CKHS
Hydrologic Assessment
Client: Central Kitsap School
District

Kitsap County, Washington



Photo 10 was taken from near the bottom of the light standard atop which the osprey nest has been constructed.



Photo 11 was taken from the parking lot above the track and field location and looks south toward the high school. light standard on the right houses the osprey nest. The high school building is just beyond the lights.



Photo 12 was taken from the same location as Photo 11. This photo was zoomed in order to show a close up view of the nest.



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DATE: 10/26/16 DWN: JB PRJ. MGR JB PROJ.#: 2399.02

Project Name: CKHS/CKHS Hydrologic Assessment Client: Central Kitsap School District

Kitsap County, Washington

Photoplate 4



Washington Department of Fish and Wildlife **REGION 6**

48 Devonshire Road • Montesano, Washington 98563 • (360) 249-4628 FAX (360) 249-1229

November 21, 2016

Joanne Bartlett **Ecological Land Services** 8900 State Highway 3, Suite 201 Bremerton, WA 98312-4982

Dear Joanne Bartlett:

This letter serves as the permit to allow the Central Kitsap School District or its representative to remove an osprey nest from a lighting pole located at 3600 Bucklin Hill Road, Silverdale, WA 98383 in Kitsap County pursuant to RCW 77.15.130 and WAC 232-36-040. This nest has been determined to be impedance to maintenance repair needs. This permit allows the removal outside of the nesting season from October 1, 2016 through March 15, 2017. Additional permits may be required from the US Fish and Wildlife Service for removal of the nest during the nesting season.

No permit is required to install an exclusionary device after the nest is removed. Nor is the installation of exclusionary device required. Although not required, a follow-up report on the success of any exclusionary device installed would be appreciated.

A copy of this permit must be on site while the nest is being removed.

If you have any questions regarding the conditions of this permit, please contact me by telephone at (360) 790-8687 or by e-mail at bryan.murphie@dfw.wa.gov.

Sincerely,
Buy L Muphie
Bryan Murphie Wildlife Biologist

cc: Brian Calkins Sgt. Ted Jackson

STATE OF WASHINGTON DEPARTMENT OF FISH AND WILDLIFE



SPECIAL PERMIT

OSPREY NEST REMOVAL PERMIT

| LOCATION #: Kitsap County | PERMIT #: NA | |
|---|--|-------------------|
| LOCATION NAME: Central Kitsap High | SPECIES: OSPREY | YEAR: 2016 |
| School TOWER OWNER: Central Kitsap High | PERMITEE: Central Kitsap High School or | |
| School | representative | |
| ADDRESS: 3600 Bucklin Hill Road | ADDRESS: 3600 Bucklin Hill Road | |
| CITY: Silverdale, WA 98383 | CITY: Silverdale | ZIP: 98383 |
| NATURE OF DAMAGE: Impedance to maintenance repair needs | STATE: WA | |
| MITIGATION AGREEMENT: See attached letter | VALID DATES: October 1, 2016 to March 15, 2017 | |

THIS PERMIT AND THE ENCLOSED LETTER MUST BE ON THE SITE WHILE THE NEST IS BEING REMOVED